Economics

B.A. Syllabus (CBCS)

(w.e.f. 2016 - 2018)

Faculty of Social Science

PALAMURU UNIVERSITY

Mahabubnagar - 509 001, Telangana

2016

PALAMURU UNIVERSITY

Model

Scheme of Instruction and Examination

B.A. Economics (Regular)

Under Choice Based Credit System (CBCS) - w.e.f. 2016-2017

Year	Semester	DSC/GE/ DSE/SEC	Paper	Title	Credits	Hours
I	I	DSC*	Paper - I	Micro Economics – I	5	5
	II	DSC*	Paper - II	Macro Economics	5	5
II	III	SEC*	Paper - I	Basics of Computers-I	2	2
		DSC*	Paper - III	Micro Economics – II	5	5
	IV	SEC*	Paper - II	Basics of Computers – II	2	2
		DSC*	Paper - IV	Public Economics	5	5
III	V	SEC*	Paper - III	Basics of Quantitative Methods for Economists – I	2	2
		GE**	Paper - I	Telangana Economy	6	6
		DSC*	Paper - V	Development Economics	4	4
		DSE*	Paper - I A	Economics of Education	4	4
		DSE*	Paper - I B	Indian Economy		
		DSE*	Paper - I C	Financial Economics		
	VI	SEC*	Paper - IV	Basics of Quantitative Methods for Economists – II	2	2
		GE**	Paper - II	Economics of Environment	6	6
		DSC*	Paper - VI	International Economics	4	4
		DSE*	Paper - II A	Demography	4	4
		DSE*	Paper - II B	Economics of Insurance		
		DSE*	Paper - II C	Industrial Economics		

* DSC (Discipline Specific Course), SEC (Skill Enhancement Course) & DSE (Discipline Specific Elective) for Students of Economics.

** GE (Generic Elective) or Inter-Disciplinary Course for Students of Social Sciences other than Economics.

(**Prof.A.K.Vasudeva Chary**)

B.A., (Economics) Syllabus

Choice Based Credit System- w.e.f.2019-20

Palamuru University, Mahabubnagar

Telangana State

Year	Semester	DSC/GE/ DSE/SEC	Paper	Title of the Paper	Credits	Hours PW
I	I	DSC*101	Paper - I	Micro Economics	5	5
		AEC	AEC	Environmental Science/ Basic Computer kills	2	2
	II	DSC*201	Paper - II	Macro Economics	5	5
II		AEC	AECC	Environmental Science/ Basic Computer kills	2	2
	III	DSE-301	Paper - III	Statistics for Economics	5	5
		SEC-1	SEC-I	Computer Applications	2	2
		SEC-2	SEC-II	Rural Development	2	2
	IV	DSC*401	Paper - IV	Indian Economy	5	5
		SEC-3	SEC-III	Data Analysis	2	2
		SEC-4	SEC-IV	Entrepreneurship and Development	2	2
III	V	GE**	Paper - I	Telangana Economy	4	4
		DSE*501	Elective- A	Agricultural Economics	5	5
		DSE*501	Elective - B	Public Economics	5	5
		DSE*501	Elective - C	Economics of Environment	5	5
	VI					
		DSE*601	Paper - A	International Economics	5	5
		DSE*601	Paper B	Development Economics	5	5
		DSE*601	Paper - C	Industrial Economics	5	5
		Project/Optional	Project/ Optional	Financial Economics	4	4

* DSC (Discipline Specific Course), SEC (Skill Enhancement Course) & DSE (Discipline Specific Elective) for Students of Economics.

(PW) Per week.** GE (Generic Elective) or Inter-Disciplinary Course for Students of Social Sciences other than Economics.

Year	Semester	DSC/GE/ DSE/SEC	Paper	Title of the Paper	Credits	Hours PW
I	I	**DSC*101**	Paper - I	Micro Economics	**5**	**5**
		AEC	AEC	Environmental Science/ Basic Computer kills	**2**	**2**
	II	**DSC*201**	Paper - II	Macro Economics	**5**	**5**
II		**AEC**	AECC	Environmental Science/ Basic Computer kills	**2**	**2**
	III	**DSE-301**	Paper - III	Statistics for Economics	**5**	**5**
		SEC-1	SEC-I	Computer Applications	**2**	**2**
		SEC-2	SEC-II	Rural Development	**2**	**2**
	IV	**DSC*401**	Paper - IV	Indian Economy	**5**	**5**
		SEC-3	SEC-III	Data Analysis	**2**	**2**
		SEC-4	SEC-IV	Entrepreneurship and Development	**2**	**2**
III	V	**GE****	Paper - I	Telangana Economy	**4**	**4**
		DSE*501	Elective- A	Agricultural Economics	**5**	**5**
		DSE*501	Elective - B	Public Economics	**5**	**5**
		DSE*501	Elective - C	Economics of Environment	5	5
	VI	**DSE*601**	Paper - A	International Economics	**5**	**5**
		DSE*601	Paper B	Development Economics	**5**	**5**
		DSE*601	Paper - C	Industrial Economics	**5**	**5**
		Project/Optional	Project/ Optional	Financial Economics	4	4

* DSC (Discipline Specific Course), SEC (Skill Enhancement Course) & DSE (Discipline Specific Elective) for Students of Economics.(PW) Per week.** GE (Generic Elective) or Inter-Disciplinary Course for Students of Social Sciences other than Economics.

B.A., (Economics) Syllabus

Choice Based Credit System- w.e.f.2019-20

Palamuru University, Mahabubnagar

Telangana State

History

B.A. (I - IV Semesters) Syllabus (CBCS)

(w.e.f. 2016 - 2017)

Faculty of Social Science

PALAMURU UNIVERSITY

Mahabubnagar - 509 001, Telangana

2016

PALAMURU UNIVERSITY

Model

Scheme of Instruction and Examination

B.A. History (Regular)

Under Choice Based Credit System (CBCS) - w.e.f. 2016-2017

Year	Semester	DSC/GE/ DSE/SEC	Paper	Title	Credits	Hours
I	I	DSC*	Paper - I	History of India (From Earliest Times to c.700 CE)	5	5
	II	DSC*	Paper - II	History of India (c.700 -1526 CE)	5	5
II	III	SEC*	Paper - I	Historical and Cultural Tourism in India	2	2
		DSC*	Paper - III	History of India (1526-1857 CE)	5	5
	IV	SEC*	Paper - II	Archives and Museums	2	2
		DSC*	Paper - IV	History of India (1858-1964 CE)	5	5
III	V	SEC*	Paper - III	Understanding Heritage	2	2
		GE**	Paper - I	Indian National Movement (1857-1947 CE)	5+1	6
		DSC*	Paper - V	World History (1453-1815 CE)	4	4
		DSE*	Paper - I A	History of Telangana (From Earliest Times to 1724 CE)	4	4
		DSE*	Paper - I B	Islamic History and Culture (From Earliest Times to the Fall of Ummayads)		
		DSE*	Paper - I C	History of USA (1776-1991 CE)		
	VI	SEC*	Paper - IV	Introduction to Archaeology	2	2
		GE**	Paper - II	History of Telangana Movement and State Formation (1948-2014 CE)	5+1	6
		DSC*	Paper - VI	World History (1815-1950 CE)	4	4
		DSE*	Paper - II A	History of Telangana (1724-2014 CE)	4	4
		DSE*	Paper - II B	Islamic History and Culture (Rise of Abbasids to Crusades)		
		DSE*	Paper - II C	Introduction to Indian Art and Architecture		

* DSC (Discipline Specific Course), SEC (Skill Enhancement Course) & DSE (Discipline Specific Elective) for Students of History.

** GE (Generic Elective) or Inter-Disciplinary Course for Students of Social Sciences other than History (5 Credits + 1 Tutorial).

10.05.2016.

B.A. History (Regular) Syllabus according to Choice Based Credit System (CBCS) (as per TSCHE Model) w.e.f. 2019-2020

PALAMURU UNIVERSITY
MAHABUBNAGAR
TELANGANA.

(2019-2020)

PALAMURU UNIVERSITY

(As per TSHCE Model)

Scheme of Instruction and Examination

Titles of B.A. History (Regular) (CBCS) Syllabus w.e.f. 2019-2020

Year	Semester	DSC/GE/ DSE/SEC	Paper	Title	Credits	Hours
I	I	DSC*101	**Paper - I**	**History of India (From Earliest Times to c.700 CE)**	5	5
	II	DSC201*	**Paper – II**	**History of India (c.700 -1526 CE)**	5	5
II	III	DSC*301	**Paper – III**	**History of India (1526-1857 CE)**	5	5
		SEC-I	**Paper-I**	**Historical and Cultural Tourism**	2	2
	IV	DSC401*	**Paper - IV**	**History of India (1858-1964 CE)**	5	5
		SEC-II	**Paper-II**	**Archives and Museums**	2	2
		----------	----------	----------	----------	----------
		GE**	**Open Stream**	**Indian National Movement (1857-1947 CE)**	4	4
III						
	V	DSE-501*	**Elective-A**	**History of Modern World (1453-1964 CE)**	5	5
			----------	----------	----------	----------
			Elective-B	**Tourism and Culture**	5	5
	VI	DSE601*	**Paper – A**	**History and Culture of Telangana (From Earliest Times to 2014 CE)**	5	5
		----------	----------	----------	----------	----------
		DSE601*	**Paper – B**	**Islamic History**	5	5
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		***Optional		**Ancient Civilizations**	4	4

* DSC (Discipline Specific Course), SEC (Skill Enhancement Course) & DSE (Discipline Specific Elective) for Students of History.

** GE (Generic Elective) or Inter-Disciplinary Course for Students of Social Sciences other than History.

*** Optional

Head **Chairman, Board of Studies**

BA Political Science

Courses offered under CBCS system from 2019-20 onwards as per TSCHE guidelines (Applicable to all the Telangana State Universities)

Discipline specific courses (DSC)

1st Semester
Understanding Political Theory

IInd Semester
Western Political Thought

IIIrd Semester
Indian Political Thought

IV th Semester
Constitution and Politics of India

Discipline specific Electives (DSE)

Vth Semester
I. International Relations
Or
II. Government and Politics in Telangana

VI Semester
I. Global Politics
Or
II . Contemporary social movements

Generic Elective (GE)

Vth Semester
Politics of Development

Project Work / Optional Paper

VI the Semester
Contemporary Political Theory

B.A Political Science

I st Semester

Paper - I

Understanding Political Theory

Unit- I Political Theory

- What is Political Theory, Evolution, Nature , Significance
- Debates on Political Theory

  a)Normative b) Empirical

Unit-II What is Political?

- State: Theories of origin of the state, Divine, Social Contract, Evolution Theories
- Power and Authority
- Authoritative allocation of Values
- Sovereign state : Challenges

Unit- III Political Values and Theoretical Perspective

- Liberty :- A) Liberal B) Marxist C) Feminist
- Equality :- A) Liberal B) Marxist C) Feminist
- Justice :- A) Liberal B) Marxist C) Feminist

Unit-IV Political Ideologies

- Liberalism
- Nationalism
- Multiculturalism

Unit-V Political Institutions and Functions

- Legislature, Executive and Judiciary
- Political Parties, Pressure Groups, Media

Reading list : -

1. Rajeev Bhargava & Ashok Acharya , editions , Political Theory : An Introduction , Pearson ,2019
2. Sushila Ramaswamy, Political Theory : Ideas and Concept , PHI Learning Pvt , Ltd .2015
3. O.P. Gauba, An Introduction to Political Theory , Macmillan, 2019
4. Michael G. Roskin , Robert L. Cord, James A. Medeiros , Walter S. Jones , Political Science : An Introduction , Pearson ,2018
5. Hoveyda Abbas , Ranjay Kumar , Political Theory , Pearson ,2019
6. John Hottman , Paul Graham , Introduction to Political Ideologies , Pearson ,2014
7. A. *Appadorai, (2000), Substance of Politics, Oxford University Press, New Delhi, India.*
8. George H Sabine, Thomas L Thorson, (1973), A History of Political Theory, Oxford & IBH Publishing Co., New Delhi.
9. Heywood, Andrew, (2012) Political Ideologies: An Introduction, Palgrave Macmillan, UK.
10. Heywood, Andrew, (2013), Politics, Palgrave Macmillan (UK).
11. Leon P. Baradat, (2011), Political Ideologies, Routledge.
12. Michael Freeden, Lyman Tower Sargent, Marc Stears,(eds) (2013), The Oxford Handbook of Political Ideologies, Oxford University Press, UK.
13. Ernest Barker : Principles of Social and Political Theory (London , Oxford University Press 1951)
14. Norman P. Barry : An Introduction to Modern Political Theory (London Macmillan, 1989)
15. Richard Bellamy (ed) : Theories and Concepts of Politics (New York , Manchester University Press 1993.)
16. Anthoppny H. Brirch : The Concepts and Theories of Modern Democracy (London , Routledge ,2001)
17. Martin Carnoy : The State and Political Theory (Princeton , Princeton University Press , 1984)

B.A Political Science

II st Semester

Paper - II

Western Political Thought

Unit- I Greek Political Thought

- Greek Political Thought – Sophists
- Plato:- Concept of Justice , Ideal State , Education and Communism.
- Aristotle :- Forms of Governments, On revolution , Slavery , Best state

Unit- II : Medieval and Early Modern Thought

- Thomas Aquinas :- Theory of Laws, Christianized Aristotle
- Church – State Controversy
- Niccolo Machiavelli – Human Nature , StateCraft

Unit- III Social Contractualists

- Thomas Hobbes :- Individualism and Absolute (State) Sovereignty
- John Locke :- Natural Rights Limited Government
- J. J. Rousseau :- Romanticism, General will , Popular Sovereignty

Unit- IV : Utilitarian Thought

- Jeremy Bentham :- Utilitarian Principles; Hedonism
- J. S. Mill :- On liberty , Representative Government

Unit- V : Philosophy of Dialectics

- G.W. F. Hegal :- Dialectics Purpose of History Geist (Spirt) and State
- Karl Marx:- Historical Materialism, Class war and Revolution.

Reading list :

1. . D.Mackenzie Brown, (1959), Indian Political Thought from Manu to Gandhi., University of California Press, Berleley and Los Angeles.
2. George Klosko, (eds), (2011), The Oxford Handbook of The History of Political Philosophy, Oxford University Press, New York.
3. Gregory Claeys, (eds)(2013), Encyclopedia of Modern Political Thought, Sage Publication, New Delhi.
4. M.P.Singh and Himanshu Roy, (eds), (2011), Indian Political Thought: Themes and Thinkers, Pearson, New Delhi.
5. N.D.Arora and S.S.Awasthy, (2007), Political Theory and Political Thought, Har-Anand Publications, New Delhi.
6. S.K.Sarma and Urmila Sharma, (2006), Western Political Thought (from Plato to Burke), Atlantic Publishers, New Delhi.
7. Subrata Mukherjee & Sushila Ramaswamy, (2011), A History of Political Thought,: Plato to Marx, PHI Learning Private Limited, New Delhi.
8. Thomas Pantham, Kenneth L. Deutsch, (1986), Political Thought in Modern India, Sage Publication, New Delhi.

B.A Political Science

III rd Semester

Paper - III

Indian Political Thought

Unit- I State and Society in Ancient India

- Manu – Features of Manusmriti, Origins of Varna, Varna Dharma
- Buddha – Dhamma , Sangha , Eightfold path
- Kautilya- Saptanga Theory , Mandala Theory , Statecraft

Unit-II Medieval Political Thought

- Basava- Anubhava Mantapa , Gender Equality
- Ziauddin Barani- Theory of Kingship (Ideal Sulthan) , Ideal Polity

Unit- III RenaissanceThought

- Raja Ram Mohan Roy - Colonial Encounters , Brahma Samaj
- Jyothi Rao Phule- Gulam Giri , Satya Shodhak Samaj , Education

Unit-IV Reformist Thought

- M. K. Gandhi – Satyagraha , Trusteeship , Problem of Political Obligation
- Dr. B. R. Ambedkar- Who are Shudras ? , Annihilation of Caste

Unit-V Socialist Thought

- M.N. Roy- Radical Humanism
- Jawaharlal Nehru- Democratic Socialism
- R.M. Lohia – Concept of Four Pillars of State(Chaukhamba Model)

B.A Political Science

IV th Semester

Paper - IV

Constitution and Politics of India

Unit- I Constitutional Development in India

- Brief overview of Nationalist Movement
- Evolution of Indian Constitution -1909 Act ,1919 Act ,1935Act.
- Philosophical Foundations of the Indian Constitution – Liberal, Gandhian, Socialist

Unit- II : Institutional Framework

- Union Government – Executive; Legislature; Judiciary
- State Government - Executive; Legislature; Judiciary

Unit- III Federal Politics

- Union- State Relations : Legislative, Administrative, Financial
- Recent trends in Union - State Relations

Unit- IV : Electoral Politics in India

- Political Parties a) National : INC, BJP, CPM, BSP
  b) Regional : DMK, Akali Dal, TDP, TRS
  c) Recent Trends in Party System
- Election Commission & Electoral Reforms

Unit- V : Issues in Indian Politics

- Debates on Secularism – Majority Communalism, Minority Communalism
- Caste in Politics and Politicization of caste
- Gender in Indian Politics
- Issues of Minorities – Sachar Committee

B.A Political Science

V th Semester

GE Paper

Politics of Development

Unit- I Development: Meaning, Nature, Importance

- Types of Development: Economic, Political and Social.

Unit- II : Development Debates

- Capitalist , Socilaist , Gandhian , Sustainable Development

Unit- III State and Development in India

- Planning, Mixed Economy, Socialistic Pattern of Society
- Sectors of Development: Industry, Agriculture, Irrigation, Land Reforms.

Unit- IV : Issues of Development in the Post-Economic Reforms period

- Economic Reforms: Liberalisation , Privatisation, Globalisation
- Development and Displacement
- Development and Environment

B.A Political Science

Vth Semester

Paper- V (A)

International Relations

Unit- I International Relations – Nature , Evolution and Scope; State and Non- State Actors in IR , Westphalian State and Sovereign State system and its characteristics

Unit-II European conquest of Asia and Africa – Its Impact on society, culture, economy (European colonialism)First World War and Second World War

Decolonization and its consequences ; Rise of the Developing world ;Neo- colonialism

Unit- III Cold War ;Détente ; End of the Cold War ;Disintegration of the Soviet Union ; American Hegemony

Unit-IV India's Foreign Policy: Determinants; features; Non- Alignment

Unit-V India's Relations with USA; China; Pakistan; Sri Lanka and Nepal

B.A Political Science

Vth Semester

Paper – V (B)

Government & Politics in Telangana

Unit- I State Politics

Historical Background of Telangana

Nizam Rule,Public Awakening in Telangana- Andhara Maha Sabha ,Library movement, Tribal Self – Assertion , Aadi Hindu Movement,

Telangana Armed Struggle, Hyderabad State's integration with the Indian Union

Unit-II States Reorganization in India

- Fazal Ali Commission , Gentleman Agreement, Hyderabad's Merger with Andhra and Formation of AP
- Mulki Rules , Regional Committees' Formation

Unit- III Demand for separate Telangana State

- 1969 Agitation.
- Telangana Praja Samithi
- Six point formula
- Telangana Movement from 1990
- Issues : Water , Financial Resources , Employment, Education and Discrimination

Unit-IV Politics of Formation of Telangana

- Justice Sri Krishna Committee Report on the condition of Telangana
- Political Parties views on Separate Telangana: INC , BJP, CPI, CPM, TRS , TDP, MIM and Role of Political JAC
- Role of Civil Society organizations : Students, Employees, Lawyers and Communities' groups

Unit-V Formation of Telangana

- Constitutional Process
- Electoral Politics in Telangana

B.A Political Science

VI th Semester

Optional Paper / Project

Contemporary Political Theory

Unit- I : Liberal Theory :

Isaiah Berlin: Two concepts of Liberty

Hannah Arendt : On Totalitarianism

Unit- II : Neo Marxist theory

Antonio Gramsci: Hegemony and Passive Revolution

Sameer Amin: Critique of Globalization

Unit- III: Feminist Theory: I

Simone de Beauvoir: Issue of Equality

Betty Friedan : Feminine mystique

Unit-IV : Feminist Theory: II

Vandana Shiva : Eco-feminism

Cynthia Enloe: Women's Experience as politics

B.A Political Science

VI th Semester

Paper – VI (A)

Global Politics

Unit- I	Power , Elements of Power , Balance of Power ,Growing importance of Soft Power
Unit-II	Security, Collective Security, Bipolarity , Multipolarity, Unipolarity
Unit- III	Human Rights; Agencies of human Rights Protection; Terrorism , Environmental Issues
Unit-IV	World Bank and IMF; UNCTAD; North – South Dialogue and South – South Co- operations; WTO
Unit-V	Disarmament, Arms Race , Arms control , NPT, CTBT, MTCR Proliferation of Small Arms, WMDs

B.A Political Science

VI th Semester

Paper- VI (B)

Social Movements

Unit- I	Introduction to Social Movements: Meaning, Nature, Significance.
	Rise of Social Movements
	Issues in Social Movements: Depravation, Identity, Justice, Assertion
Unit-II	Social Reform Movements
	Anti- Brahmin Movement: Ramaswamy Naicker, Naryana Guru
	Backward Class movements in Andhra Pradesh , Telangana and Tamil Nadu
	Women's Movement
Unit- III	Agrarian Movements
	Bharat Kisan Union
	Shetkari Sanghatana
	Karnataka Rajya Ryta Sangha
Unit-IV	Environmental Movements
	Chipko Movement
	Narmada Bacho Andholan
Unit-V	Assertion Movements
	Adivasi Movement: Jharkhand
	Dalit Movements in Maharastra, Telangana and Andhra Pradesh
	Naxalite Movement: Andhra Pradesh, Telangana and Chhattisgarh

Palamuru University :: Mahabubnagar

Courses offered for B.A. Political Science Under CBCS from 2021-22 onwards

Subject Code & Paper	Paper title	Scheme of Instruction (Hours per week)	Credits	Scheme of Examination Internal and Semester End exam marks
SEMESTER - I				
DSC-101 Core Paper	**Understanding Political Theory**	**5**	**5**	**20 + 80 = 100**
SEMESTER - II				
DSC-201 Core Paper	**Western Political Thought**	**5**	**5**	**20 + 80 = 100**
SEMESTER - III				
DSC-301 Core Paper	**Indian Political Thought**	**5**	**5**	**20 + 80 = 100**
SEC – I	**Psephology And Public Opinion**	**2**	**2**	**10+40=50**
SEC – II	**Human Rights**	**2**	**2**	**10+40=50**
SEMESTER - IV				
DSC-401 Core Paper	**Constitution and Politics of India**	**5**	**5**	**20 + 80 = 100**
SEC – III	**Legislative Practices and Procedures**	**2**	**2**	**10+40=50**
SEC – IV	**Laws, Duties and Rights of Citizens**	**2**	**2**	**10+40=50**
SEMESTER - V				
DSE-501 (A) & (B) Electives	**International Relations (A)** **Government and Politics in Telangana (B)**	**5**	**5**	**20 + 80 = 100**
GE	**Politics of Development**	**4**	**4**	**20 + 80 = 100**
SEMESTER - VI				
DSE-601 (A) & (B) Electives	**Global Politics (A)** **Contemporary Social Movements (B)**	**5**	**5**	**20 + 80 = 100**
Optional Paper / Project	**Contemporary Political Theory / Project Work**	**4**	**4**	**20+80=100 (Optional Paper)** **60+40=100 (Project work)**

Note: **DSC- Discipline Specific Course** **DSE- Discipline Specific Elective**
SEC- Skill Enhancement Course **GE- Generic Elective**

Project Work: 60 Marks for Project Report and 40 Marks for Presentation and Viva-voce

UNDERGRADUATE PROGRAMME IN PUBLIC ADMINISTRATION

Courses

SYLLABI OF UNDER GRADUATE PROGRAMME - CBCS IN PUBLIC ADMINISTRATION

1. Name of the Department : Public Administration
2. Name of the Programme : BA (Public Administration)
3. ProgrammeID : BA-103; BA-203; BA-303; BA-403;
   BA- 503 - A/B/C
   BA 603, - A/B/C
4. Duration : Three Years
5. AIM of the course :
   - Make the learner to understand the nature and role of Public Administration in the changing socio-economic and political context and in the historical background
   - Understand the impact of political dynamics on administrative processes;
   - Relate the role of public administration to the dynamics of global context;
   - Motivate the students to appear for civil service examinations.

6. Programme Objective

The board objectives of the Undergraduate Programme in Public Administration include:

- Understand public administration theory and concepts from multiple perspectives;
- Acquaint with the functioning of the Indian administration, at central, state and local levels and the responses of these systems in addressing the concerns of the people;
- Acquaint with India's development experience and changing role of administration;
- Understand the interface of theory and practice in Public Administration;
- Develop conceptual, analytical and problem solving abilities among the learners;
- Acquaint the learner with the required knowledge of administrative science and government in action and the contemporary issues in public affairs management and,
- Understand the world of Public Administration from the public perspective and provide foundation for further studies in Public Administration
- Understand the role of Public Services in the new State of Telangana.

UNDERGRADUATE PROGRAMME IN PUBLIC ADMINISTRATION
w.e.f. the academic year 2019-20

PROPOSED SCHEME FOR CHOICE BASED CREDIT SYSTEM IN B.A. PROGRAMME IN PUBLIC ADMINISTRATION

FIRST YEAR SEMESTER –I				
Code	Course Title	Course Type	HPW	Credits
BA 103	Basics of Public Administration	DSC	5	5

FIRST YEAR SEMESTER –II				
Code	Course Title	Course Type	HPW	Credits
BA 203	Development Dynamics and Emerging Trends	DSC	5	5

SECOND YEAR SEMESTER –III				
Code	Course Title	Course Type	HPW	Credits
BA 303	Indian Administrative System	DSC	5	5
SEC1	Public Office Administration		2	2
SEC2	Office Processes		2	2

SECOND YEAR SEMESTER –IV				
Code	Course Title	Course Type	HPW	Credits
BA 403	Management of Resources	DSC	5	5
SEC3	Technology & Office Administration		2	2
SEC4	Techniques of Office Administration		2	2

THIRD YEAR SEMESTER –V				
Code	Course Title	Course Type	HPW	Credits
BA 503/A	E-Governance- Concepts	DSE	5	5
BA503/B	Rural Governance in India	DSE		
BA503/C		DSE		
GE/ A	Good Governance	GE	4	4
GE/B	Indian Constitution and Administration	GE	4	4

THIRD YEAR SEMESTER –VI				
Code	Course Title	Course Type	HPW	Credits
BA 603/A	E-Governance –Case Studies	DSE	5	5
BA 603/B	Urban Governance in India	DSE		
BA 603/C		DSE		
PR	Governance and Ethics	PR	4	4

B.Com (Computers)

(w.e.f. 2016–2017)

Second Year Syllabus (CBCS)

FACULTY OF COMMERCE,
PALAMURU UNIVERSITY,
MAHABUBNAGAR – 509001, T.S.

2017

DEPARTMENT OF COMMERCE, P.U.

Structure of B.Com (Computers) (CBCS) for Palamuru University, Mahabubnagar
(w.e.f. Academic Year 2016-17)

DEPARTMENT OF COMMERCE, P.U.

Structure of B.Com (Computers) (CBCS) for Palamuru University, Mahabubnagar.

(w.e.f. Academic Year 2016-17)

B.COM (Computers) PROGRAMME

FIRST YEAR:					
SEMESTER-I					
Sl.No.	***Code***	***Course Title***	***Course Type***	***HPW***	***Credits***
(1)	(2)	(3)	(4)	(5)	(6)
1.	BC101	A/B/C/D	AECC-1	2	2
2.	BC102	English	CC-1A	5	5
3.	BC103	Second Language	CC-2A	5	5
4.	BC104	Financial Accounting - I	DSC-1A	5	5
5.	BC105	Business Economics	DSC-2A	5	5
6.	BC106	Business Organization	DSC-3A	4	4
7.	BC107	Information Technology	DSC-4A	3T+2P	4
		Total		**31**	**30**
SEMESTER-II					
8.	BC201	A/B/C/D	AECC-2	2	2
9.	BC202	English	CC-1B	5	5
10.	BC203	Second Language	CC-2B	5	5
11.	BC204	Financial Accounting - II	DSC-1B	5	5
12.	BC205	Managerial Economics	DSC-2B	5	5
13.	BC206	Principles of Management	DSC-3B	4	4
14.	BC207	Management Information System	DSC-4B	3T+2P	4
		Total		**31**	**30**
SECOND YEAR:					
SEMESTER-III					
15.	BC301	Principles of Insurance	SEC-1	2	2
16.	BC302	English	CC-1C	5	5
17.	BC303	Second Language	CC-2C	5	5
18.	BC304	Advanced Accounting	DSC-1C	5	5
19.	BC305	Income Tax-I	DSC-2C	5	5
20.	BC306	Business Statistics-I	DSC-3C	4	4
21.	BC307	Programming with C	DSC-4C	3T+2P	4
		Total		**31**	**30**
SEMESTER-IV					
22.	BC401	Practice of Life Insurance	SEC-2	2	2
23.	BC402	English	CC -1D	5	5
24.	BC403	Second Language	CC-2D	5	5
25.	BC404	Corporate Accounting	DSC-1D	5	5
26.	BC405	Income Tax-II	DSC-2D	5	5
27.	BC406	Business Statistics-II	DSC-3D	4	4
28.	BC407	Objective Oriented Programming with C++	**DSE-4D**	**3T+2P**	**4**
		Total		**31**	**30**

THIRD YEAR:					
SEMESTER-V					
29.	BC501	Practice of General Insurance	SEC-3	2	2
30.	BC502		GE-1	2	2
31.	BC503	Cost Accounting	DSC-1E	4	4
32.	BC504	Business Law	DSC-2E	4	4
33.	BC505	Banking Theory & Practice	DSC-3E	4	4
34.	BC506	Auditing	DSC-4E	4	4
35.	**BC507**	Computerised Accounting	**DSE-1A**	**4T+2P**	**5**
36.	**BC508**	E-Commerce	**DSE-2A**	**4T+2P**	**5**
		Total		**32**	**30**
SEMESTER-VI					
37.	BC601	Regulation of Insurance Business	SEC-4	2	2
38.	BC602		GE-2	2	2
39.	BC603	Managerial Accounting	DSC-1F	4	4
40.	BC604	Company Law	DSC-2F	4	4
41.	BC605	Financial Institutions & Markets	DSC-3F	4	4
42.	BC606	Commerce Lab	DSC-4F	2T+4P	4
43.	**BC607**	Web Technologies	**DSE-1B**	**4T+2P**	**5**
44.	**BC608**	Relational Database Management Systems	**DSE-2B**	**4T+2P**	**5**
		Total		**34**	**30**
		GRAND TOTAL		**190**	**180**

AECC: Ability **E**nhancement **C**ompulsory **C**ourse; ***SEC: S**kill **E**nhancement **C**ourse; **DSC: D**iscipline **S**pecific **C**ourse; **DSE: D**iscipline **S**pecific **E**lective; **GE: G**eneric **E**lective; T=Theory; P=Practicals;*

SUMMARY OF CREDITS

Sl. No.	Course Category	No. of Courses	Credits Per Course	Credits
1	AECC	2	2	4
2	SEC	4	2	8
3	CC Language	8	5	40
	DSC	**8**	**5**	**40**
		16	**4**	**64**
4	**DSE**	**4**	**5**	**20**
5	GE	2	2	4
	TOTAL	**44**		**180**
	Commerce Total	**28**		**124**

B.Com (Computer Applications)

(w.e.f. 2016–2017)

Second Year Syllabus (CBCS)

FACULTY OF COMMERCE,
PALAMURU UNIVERSITY,
MAHABUBNAGAR – 509001, T.S.

2017

DEPARTMENT OF COMMERCE, P.U.

Structure of B.Com (Computer Application)(CBCS) for Palamuru University, Mahabubnagar (w.e.f. Academic Year 2016-17)

DEPARTMENT OF COMMERCE, P.U.

Structure of B.Com (Computer Applications) (CBCS) for Palamuru University, Mahabubnagar.
(w.e.f. Academic Year 2016-17)

B.COM (Computer Applications) PROGRAMME

FIRST YEAR:
SEMESTER-I

Sl.No.	*Code*	*Course Title*	*Course Type*	*HPW*	*Credits*
(1)	(2)	(3)	(4)	(5)	(6)
1.	BC101	A/B/C/D	AECC-1	2	2
2.	BC102	English	CC-1A	5	5
3.	BC103	Second Language	CC-2A	5	5
4.	BC104	Financial Accounting - I	DSC-1A	5	5
5.	BC105	Business Economics	DSC-2A	5	5
6.	BC106	Business Organization	DSC-3A	4	4
7.	BC107	Information Technology	DSC-4A	3T+2P	4
		Total		**31**	**30**
SEMESTER-II					
8.	BC201	A/B/C/D	AECC-2	2	2
9.	BC202	English	CC-1B	5	5
10.	BC203	Second Language	CC-2B	5	5
11.	BC204	Financial Accounting - II	DSC-1B	5	5
12.	BC205	Managerial Economics	DSC-2B	5	5
13.	BC206	Principles of Management	DSC-3B	4	4
14.	BC207	Relational Database Management Systems	**DSE-4B**	**3T+2P**	**4**
		Total		**31**	**30**
SECOND YEAR:					
SEMESTER-III					
15.	BC301	Principles of Insurance	SEC-1	2	2
16.	BC302	English	CC-1C	5	5
17.	BC303	Second Language	CC-2C	5	5
18.	BC304	Advanced Accounting	DSC-1C	5	5
19.	BC305	Income Tax-I	DSC-2C	5	5
20.	BC306	Business Statistics-I	DSC-3C	4	4
21.	BC307	Programming with C	**DSC-4C**	**3T+2P**	**4**
		Total		**31**	**30**
SEMESTER-IV					
22.	BC401	Practice of Life Insurance	SEC-2	2	2
23.	BC402	English	CC -1D	5	5
24.	BC403	Second Language	CC-2D	5	5
25.	BC404	Corporate Accounting	DSC-1D	5	5
26.	BC405	Income Tax-II	DSC-2D	5	5
27.	BC406	Business Statistics-II	DSC-3D	4	4
28.	BC407	Objective Oriented Programming with C++	**DSC-4D**	**3T+2P**	**4**
		Total		**31**	**30**

THIRD YEAR:					
SEMESTER-V					
29.	BC501	Practice of General Insurance	SEC-3	2	2
30.	BC502		GE-1	2	2
31.	BC503	Cost Accounting	DSC-1E	4	4
32.	BC504	Business Law	DSC-2E	4	4
33.	BC505	Banking Theory & Practice	DSC-3E	4	4
34.	BC506	Computerised Accounting	DSC-4E	3T+2P	4
35.	**BC507**	Elective – I	**DSE-1A**	**4T+2P**	**5**
36.	**BC508**	Elective – II	**DSE-2A**	**4T+2P**	**5**
		Total		**33**	**30**
SEMESTER-VI					
37.	BC601	Regulation of Insurance Business	SEC-4	2	2
38.	BC602		GE-2	2	2
39.	BC603	Managerial Accounting	DSC-1F	4	4
40.	BC604	Company Law	DSC-2F	4	4
41.	BC605	Financial Institutions & Markets	DSC-3F	4	4
42.	BC606	Commerce Lab	DSC-4F	2T+4P	4
43.	**BC607**	Elective – I	**DSE-1B**	**5**	**5**
44.	**BC608**	Elective - II	**DSE-2B**	**5**	**5**
		Total		**32**	**30**
		GRAND TOTAL		**189**	**180**

AECC: Ability **E**nhancement **C**ompulsory **C**ourse; ***SEC: S**kill **E**nhancement **C**ourse; **DSC: D**iscipline **S**pecific **C**ourse; **DSE: D**iscipline **S**pecific **E**lective; **GE: G**eneric **E**lective; T=Theory; P=Practicals;*

SUMMARY OF CREDITS

Sl. No.	Course Category	No. of Courses	Credits Per Course	Credits
1	AECC	2	2	4
2	SEC	4	2	8
3	CC Language	8	5	40
	DSC	**8**	**5**	**40**
		16	**4**	**64**
4	**DSE**	**4**	**5**	**20**
5	GE	2	2	4
	TOTAL	**44**		**180**
	Commerce Total	**28**		**124**

B.Com (General)

(w.e.f. 2016–2017)

Second Year Syllabus (CBCS)

FACULTY OF COMMERCE,
PALAMURU UNIVERSITY,
MAHABUBNAGAR – 509001, T.S.

2017

DEPARTMENT OF COMMERCE, P.U.
Structure of B.Com (General) (CBCS) for Palamuru University, Mahabubnagar
(w.e.f. Academic Year 2016-17)

DEPARTMENT OF COMMERCE, P.U.

Structure of B.Com (General) (CBCS) for Palamuru University, Mahabubnagar

(w.e.f. Academic Year 2016-17)

B.COM (General) PROGRAMME

FIRST YEAR:					
SEMESTER-I:					
Sl.No.	***Code***	***Course Title***	***Course Type***	***HPW***	***Credits***
(1)	(2)	(3)	(4)	(5)	(6)
1.	BC101	A/B/C/D	AECC-1	2	2
2.	BC102	English	CC-1A	5	5
3.	BC103	Second Language	CC-2A	5	5
4.	BC104	Financial Accounting - I	DSC-1A	5	5
5.	BC105	Business Economics	DSC-2A	5	5
6.	BC106	Business Organization	DSC-3A	4	4
7.	BC107	Information Technology	DSC-4A	3T+2P	4
		Total		**31**	**30**
SEMESTER-II:					
8.	BC201	A/B/C/D	AECC-2	2	2
9.	BC202	English	CC-1B	5	5
10.	BC203	Second Language	CC-2B	5	5
11.	BC204	Financial Accounting - II	DSC-1B	5	5
12.	BC205	Managerial Economics	DSC-2B	5	5
13.	BC206	Principles of Management	DSC-3B	4	4
14.	BC207	Foreign Trade	DSC-4B	4	4
		Total		**30**	**30**
SECOND YEAR:					
SEMESTER-III:					
15.	BC301	Principles of Insurance	SEC-1	2	2
16.	BC302	English	CC-1C	5	5
17.	BC303	Second Language	CC-2C	5	5
18.	BC304	Advanced Accounting	DSC-1C	5	5
19.	BC305	Income Tax-I	DSC-2C	5	5
20.	BC306	Business Statistics-I	DSC-3C	4	4
21.	BC307	Entrepreneurial Development & Business Ethics	DSC-4C	4	4
		Total		**30**	**30**
SEMESTER-IV:					
22.	BC401	Practice of Life Insurance	SEC-2	2	2
23.	BC402	English	CC -1D	5	5
24.	BC403	Second Language	CC-2D	5	5
25.	BC404	Corporate Accounting	DSC-1D	5	5
26.	BC405	Income Tax-II	DSC-2D	5	5
27.	BC406	Business Statistics-II	DSC-3D	4	4
28.	BC407	Financial Statement Analysis	DSC-4D	4	4
		Total		**30**	**30**

THIRD YEAR:					
SEMESTER-V					
29.	BC501	Practice of General Insurance	SEC-3	2	2
30.	BC502		GE-1	2	2
31.	BC503	Cost Accounting	DSC-1E	4	4
32.	BC504	Business Law	DSC-2E	4	4
33.	BC505	Banking Theory & Practice	DSC-3E	4	4
34.	BC506	Auditing	DSC-4E	4	4
35.	**BC507**	Computerised Accounting	**DSE-1A**	**4T+2P**	**5**
36.	**BC508**	Accounting Standards	**DSE-2A**	**5**	**5**
		Total		**31**	**30**
SEMESTER-VI					
37.	BC601	Regulation of Insurance Business	SEC-4	2	2
38.	BC602		GE-2	2	2
39.	BC603	Managerial Accounting	DSC-1F	4	4
40.	BC604	Company Law	DSC-2F	4	4
41.	BC605	Financial Institutions & Markets	DSC-3F	4	4
42.	BC606	Commerce Lab	DSC-4F	2T+4P	4
43.	**BC607**	Advanced Managerial Accounting	**DSE-1B**	**5**	**5**
44.	**BC608**	Advanced Corporate Accounting	**DSE-2B**	**5**	**5**
		Total		**32**	**30**
		GRAND TOTAL		**184**	**180**

AECC: Ability **E**nhancement **C**ompulsory **C**ourse; ***SEC: S**kill **E**nhancement **C**ourse; **DSC: D**iscipline **S**pecific **C**ourse; **DSE: D**iscipline **S**pecific **E**lective; **GE: G**eneric **E**lective; T=Theory; P=Practicals;*

SUMMARY OF CREDITS

Sl. No.	Course Category	No. of Courses	Credits Per Course	Credits
1	AECC	2	2	4
2	SEC	4	2	8
3	CC Language	8	5	40
	DSC	**8**	**5**	**40**
		16	**4**	**64**
4	**DSE**	**4**	**5**	**20**
5	GE	2	2	4
	TOTAL	**44**		**180**
	Commerce Total	**28**		**124**

B.Com.

Syllabus (CBCS)

(w.e.f. 2019–2020)

FACULTY OF COMMERCE
PALAMURU UNIVERSITY
MAHABUBNAGAR-509001
T.S.

2019

B.COM.
CBCS COURSE STRUCTURE
w.e.f. 2019-20

Sl.No.	*Code*	*Course Title*	*HPW*	*Credits*	*Exam Hrs*	*Marks*
(1)	(2)	(3)	(5)	(6)	(7)	(8)
		SEMESTER – I				
1.	ELS1	English (First Language)	4	4		
2.	SLS1	Second Language	4	4		
3.	AECC1	**a)** Environmental Science/ **b)** Basic Computer Skills	2	2		
4.	DSC101	Financial Accounting-I	5	5	3 hrs	80U+20I
5.	DSC102	Business Organization and Management	5	5	3 hrs	80U+20I
6.	DSC103	Foreign Trade	5	5	3 hrs	80U+20I
		Total	**25**	**25**		
		SEMESTER – II				
7.	ELS2	English (First Language)	4	4		
8.	SLS2	Second Language	4	4		
9.	AECC2	**a)** Basic Computer Skills / **b)** Environmental Science	2	2		
10.	DSC201	Financial Accounting-II	5	5	3 hrs	80U+20I
11.	DSC202	Business Laws	5	5	3 hrs	80U+20I
12.	DSC203	Banking and Financial Services	5	5	3 hrs	80U+20I
		Total	**25**	**25**		
		SEMESTER – III				
13.	ELS3	English (First Language)	3	3		
14.	SLS3	Second Language	3	3		
15.	SEC1	**a)** Principles of Insurance/ **b)** Foundation of Digital Marketing/ **c)** Fundamentals of Business Analytics	2	2	1 ½ hrs	40U+10I
16.	SEC2	**a)** Practice of Life Insurance/ **b)** Web Design & Analytics/ **c)** Application of Business Analytics	2	2	1 ½ hrs	40U+10I
17.	DSC301	Advanced Accounting	5	5	3 hrs	80U+20I
18.	DSC302	Business Statistics-I	5	5	3 hrs	80U+20I
19.	DSC303	Financial Institutions and Markets	5	5	3 hrs	80U+20I
		Total	**25**	**25**		
		SEMESTER – IV				
20.	ELS4	English (First Language)	3	3		
21.	SLS4	Second Language	3	3		
22.	SEC3	**a)** Practice of General Insurance/ **b)** Social Media Marketing **c)** Business Intelligence	2	2	1 ½ hrs	40U+10I
23.	SEC4	**a)** Regulation of Insurance Business/ **b)** Search Engine Optimization & Online Advertising **c)** Data Visualisation & Storytelling	2	2	1 ½ hrs	40U+10I
24.	DSC401	Income Tax/Excel Foundation	5	5	3 hrs	80U+20I
25.	DSC402	Business Statistics-II	5	5	3 hrs	80U+20I
26.	DSC403	Corporate Accounting	5	5	3 hrs	80U+20I
		Total	**25**	**25**		

		SEMESTER – V				
27.	ELS5	English (First Language)	3	3		
28.	SLS5	Second Language	3	3		
29.	GE	Business Economics	4	4	3 hrs	80U+20I
30.	DSE501	**a)** Cost Accounting/ **b)** Financial Planning & Performance/ **c)** International Financial Reporting-I	5	5	3 hrs	80U+20I
31.	DSE502	**a)** Computerized Accounting/ **b)** Financial Decision Making-I/ **c)** International Tax & Regulation	3T+4P/5	5	3 hrs	50T+35P + 15I/ 80U+20I
32.	DSE503	**a)** Auditing/ **b)** Advanced Corporate Accounting/ **c)** Financial Management	5	5	3 hrs	80U+20I
		Total	**27/25**	**25**		
		SEMESTER – VI				
33.	ELS6	English (First Language)	3	3		
34.	SLS6	Second Language	3	3		
35.	PR	Research Methodology and Project Report	2T+4R	4	1 ½ hrs	40U+10I 35R+15VV
36.	DSE601	**a)** Cost Control and Management Accounting/ **b)** Financial control/ **c)** International Financial Reporting-II	5	5	3 hrs	80U+20I
37.	DSE602	**a)** Theory and Practice of GST/ **b)** Financial Decision Making-II / **c)** International Auditing	3T+4P/5	5	3 hrs	50T+35P + 15I/ 80U+20I
38.	DSE603	**a)** Accounting Standards/ **b)** Corporate Governance/ **c)** Investment Management	5	5	3 hrs	80U+20I
		Total	**29/27**	**25**		
		GRAND TOTAL	**156/152**	**150**		

ELS: English Language Skill**; SLS**: Second Language Skill; **AEC: A**bility **E**nhancement **C**ompulsory **C**ourse; ***SEC: S**kill **E**nhancement **C**ourse; **DSC: D**iscipline **S**pecific **C**ourse; **DSE: D**iscipline **S**pecific **E**lective; **GE: G**eneric **E**lective; **T**: **T**heory; **P**: **P**ractical**; I**: Internal Exam **U: U**niversity Exam: **PR**: **P**roject **R**eport; **VV**: **V**iva-**V**oce Examination.*

Note: If a student should opt for "a" in SEC in III semester, the student has to opt for "a" only in IV semester and so is the case with "b" and "c". In the case of DSE also the rule applies.

SUMMARY OF CREDITS

Sl. No.	Course Category	No. of Courses	Credits Per Course	Credits
1	English Language	6	4/3	20
2	Second Language	6	4/3	20
3	AECC	2	2	4
4	**SEC**	**4**	**2**	**8**
5	**GE**	**1**	**4**	**4**
6	**Project Report**	**1**	**4**	**4**
7	**DSC**	**12**	**5**	**60**
8	**DSE**	**6**	**5**	**30**
	TOTAL	**38**		**150**
	Commerce	**24**		**106**
CREDITS UNDER NON-CGPA		**NSS/NCC/Sports/Extra Curricular**	**Up to 6 (2 in each year)**	
		Summer Internship	**Up to 4 (2 in each after I & II years)**	

B.Com. (Computer Applications)
Syllabus (CBCS)
(w.e.f. 2019–2020)

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FACULTY OF COMMERCE
PALAMURU UNIVERSITY
MAHABUBNAGAR-509001 T.S.

2019

B.COM (Computer Applications)
CBCS COURSE STRUCTURE
w.e.f. 2019-20

Sl.No.	*Code*	*Course Title*	*HPW*	*Credits*	*Exam Hrs*	*Marks*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
		SEMESTER – I				
1.	ELS1	English (First Language)	4	4		
2.	SLS1	Second Language	4	4		
3.	AECC1	**a)** Environmental Science/ **b)** Basic Computer Skills	2	2	1 ½ hrs	40U+10I
4.	DSC101	Financial Accounting–I	5	5	3 hrs	80U+20I
5.	DSC102	Business Organization and Management	5	5	3 hrs	80U+20I
6.	DSC103	Fundamentals of Information Technology	3T+4P	5	1 ½ hrs	50T+35P + 15I
		Total	**27**	**25**		
		SEMESTER – II				
7.	ELS2	English (First Language)	4	4		
8.	SLS2	Second Language	4	4		
9.	AECC2	**a)** Basic Computer Skills/ **b)** Environmental Science	2	2	1 ½ hrs	40U+10I
10.	DSC201	Financial Accounting–II	5	5	3 hrs	80U+20I
11.	DSC202	Business Laws	5	5	3 hrs	80U+20I
12.	DSC203	Programming with C & C++	3T+4P	5	1 ½ hrs	50T+35P + 15I
		Total	**27**	**25**		
		SEMESTER – III				
13.	ELS3	English (First Language)	3	3		
14.	SLS3	Second Language	3	3		
15.	SEC1	**a)** Principles of Insurance/ **b)** Foundation of Digital Marketing/ **c)** Fundamentals of Business Analytics	2	2	1 ½ hrs	40U+10I
16.	SEC2	**a)** Practice of Life Insurance/ **b)** Web Design & Analytics/ **c)** Application of Business Analytics	2	2	1 ½ hrs	40U+10I
17.	DSC301	Advanced Accounting	5	5	3 hrs	80U+20I
18.	DSC302	Business Statistics-I	5	5	3 hrs	80U+20I
19.	DSC303	Relational Database Management System	3T+4P	5	1 ½ hrs	50T+35P + 15I
		Total	**27**	**25**		
		SEMESTER – IV				
20.	ELS4	English (First Language)	3	3		
21.	SLS4	Second Language	3	3		
22.	SEC3	**a)** Practice of General Insurance/ **b)** Social Media Marketing **c)** Business Intelligence	2	2	1 ½ hrs	40U+10I
23.	SEC4	**a)** Regulation of Insurance Business/ **b)** Search Engine Optimization & Online Advertising c)Data Visualisation & Storytelling	2	2	1 ½ hrs	40U+10I

24.	DSC401	Income Tax/Excel Foundation	5	5	3 hrs	80U+20I
25.	DSC402	Business Statistics-II	5	5	3 hrs	80U+20I
26.	DSC403	Web Technologies	3T+4P	5	1 ½ hrs	50T+35P+ 15I
		Total	**27**	**25**		
		SEMESTER – V				
27.	ELS5	English (First Language)	3	3		
28.	SLS5	Second Language	3	3		
29.	GE	a) Business Economics / b) Advanced Aspects of Income Tax	4	4	3 hrs	80U+20I
30.	DSE501	**a)** Cost Accounting/ **b)** Financial Planning & Performance/ **c)** International Financial Reporting-I	5	5	3 hrs	80U+20I
31.	DSE502	**a)** Computerized Accounting/ **b)** Financial Decision Making-I/ **c)** International Tax &Regulation	3T+4P/ 5	5	3 hrs	50T+35P + 15I/ 80U+20I
32.	DSE503	**a)** Management Information Systems/ **b)** Ecommerce/**c)** Mobile Applications	3T+4P	5	1 ½ hrs	50T+35P + 15I
		Total	**29/27**	**25**		
		SEMESTER - VI				
33.	ELS6	English (First Language)	3	3		
34.	SLS6	Second Language	3	3		
35.	PR	Research Methodology and Project Report	2T+4R	4	1 ½ hrs	40U+10I 35R+15VV
36.	DSE601	**a)** Cost Control and Management Accounting/ **b)** Financial control/ **c)** International Financial Reporting-II	5	5	3 hrs	80U+20I
37.	DSE602	**a)** Theory and Practice of GST/ **b)** Financial Decision Making-II / **c)** International Auditing	3T+4P/ 5	5	3 hrs	50T+35P + 15I/ 80U+20I
38.	DSE603	**a)** Multimedia Systems/ **b)** Cyber Security/**c)** Data Analytics	3T+4P	5	1 ½ hrs	50T+35P + 15I
		Total	**31/29**	**25**		
		GRAND TOTAL	**168/164**	**150**		

ELS: English Language Skill**; SLS**: Second Language Skill; **AEC: A**bility **E**nhancement **C**ompulsory **C**ourse; ***SEC: S**kill **E**nhancement **C**ourse; **DSC: D**iscipline **S**pecific **C**ourse; **DSE: D**iscipline **S**pecific **E**lective; **GE: G**eneric **E**lective; **T**: **T**heory; **P**: **P**ractical**; I**: Internal Exam **U: U**niversity Exam: **PR**: **P**roject **R**eport; **VV**: **V**iva-**V**oce Examination.*

Note: If a student should opt for "a" in SEC in III semester, the student has to opt for "a" only in IV semester and so is the case with "b" and "c". In the case of DSE also the rule applies.

SUMMARY OF CREDITS

Sl. No.	Course Category	No. of Courses	Credits Per Course	Credits
1	English Language	6	4/3	20
2	Second Language	6	4/3	20
3	AECC	2	2	4
4	**SEC**	**4**	**2**	**8**
5	**GE**	**1**	**4**	**4**
6	**Project Report**	**1**	**4**	**4**
7	**DSC**	**12**	**5**	**60**
8	**DSE**	**6**	**5**	**30**
	TOTAL	**40**		**150**
	Commerce	**24**		**106**
CREDITS UNDER NON-CGPA		**NSS/NCC/Sports/Extra Curricular**	**Up to 6 (2 in each year)**	
		Summer Internship	**Up to 4 (2 in each after I & II years)**	

PALAMURU UNIVERSITY

Sallybus for Under Graduate Courses B.A., B.Sc., B.Com. & B.B.A

Second Language ARABIC

Under CBCS for the year 2019 – 2020

Title of Paper : Classical Prose, Modern Prose, Grammar & History of Arabic Literature

Contents

Semester – I

Unit – I : Classical Prose :

1 : سورة الانشراح

2 : سورة التين

Unit – II : Modern Prose :

1 : الحوار

2 : النظافـة

Unit – III : Grammar :

1 : الكلمة وأقسامها

2 : الإسم وأقسامه

Unit – IV : History of Arabic Literature :

1 : ميزات اللغة العربية

2 : الشعر والشعراء في العصر الجاهلي

3 : المعلقات السبع

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PALAMURU UNIVERSITY

Sallybus for Under Graduate Courses B.A., B.Sc., B.Com. & B.B.A

Second Language ARABIC

Under CBCS for the year 2019 – 2020

Title of Paper : Classical Prose, Modern Prose, Grammar & History of Arabic Literature

Contents

Semester – II

Unit – I : Classical Prose :

1 : سورة القدر

2 : سورة الزلزال

Unit – II : Modern Prose :

1 : المعرض الصناعي

2 : النظام السابع : مير عثمان علي خان

Unit – III : Grammar :

1 : المركب المفيد

2 : المركب الناقص

Unit – IV : History of Arabic Literature :

1 : أثر القرآن الكريم على الأدب العربي

2 : تدوين القرآن المجيد

3 : تأثير الحديث الشريف على الأدب العربي

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Palamuru University

Sallybus for Under Graduate Courses B.A., B.Sc., B.Com. & B.B.A
Second Language ARABIC

Under CBCS for the year 2020 – 2021
Title of Paper : Classical Prose, Grammar & History of Arabic Literature

Contents
Semester – III

Unit – I : Classical Prose :

1 : القرآن الكريم

2 : الحديث النبوي الشريف

Unit – II : Grammar :

1 : الفعل المضارع المنصوب

2 : الفعل المضارع المجزوم

Unit – III : History of Arabic Literature :

1 : الأدب العربي في العصر الأموي

2 : أبرز الشعراء في العصر الأموي

(A) جرير

(B) الأخطل

(C) الفرزدق

(D) عمر بن أبي ربيعة

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Palamuru University

Sallybus for Under Graduate Courses B.A., B.Sc., B.Com. & B.B.A
Second Language ARABIC

Under CBCS for the year 2020 – 2021
Title of Paper : Classical Prose, Grammar & History of Arabic Literature

Contents
Semester – IV

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Palamuru University

Sallybus for Under Graduate Courses B.A., B.Sc., B.Com. & B.B.A
Second Language ARABIC

Under CBCS for the year 2021 – 2022
Title of Paper : Modern Prose, Poetry & History of Arabic Literature

Contents
Semester – V

Unit – I : Modern Prose :

1 : بطل الحرية

2 : المساواة الإنسانية

Unit – II : Poetry :

1 : الـعـلـم

2 : كـتـابـي

Unit – III : History of Arabic Literature :

1 : تطور النثر في العصر العباسي

2 : أبرز الكتّاب في العصر العباسي

(A) الجاحظ

(B) ابن المقفع

(C) بديع الزمان الهمداني

(D) الحريري

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Palamuru University

Sallybus for Under Graduate Courses B.A., B.Sc., B.Com. & B.B.A
Second Language ARABIC

Under CBCS for the year 2021 – 2022
Title of Paper : Modern Prose, Poetry & History of Arabic Literature

Contents
Semester – VI

Unit – I : Modern Prose :

1 : آثار تلنغانه

2 : سروجني نائيدو

Unit – II : Poetry :

1 : حياتي

2 : النجم

Unit – III : History of Arabic Literature :

1 : الأدب الإسلامي في العصر العباسي

2 : أبرز المحدثين في العصر العباسي

(A) الإمام مالك

(B) الإمام بخاري

(C) الإمام مسلم

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English

B.A./ B.Com./ B.Sc. I - IV Semester Syllabus (CBCS)

(w.e.f. 2016 - 2017)

Faculty of Arts

PALAMURU UNIVERSITY

Mahabubnagar - 509 001, Telangana

2016

Palamuru University

CBCS General English Syllabus (with effect from 2016-17)

Total Credits = 20
(5 credits per semester for first four semesters)
Total hours of instruction = 5 per week

Prescribed General English Text Book for I Year (Sem-I & Sem-II) for B.A/B.Sc/B.Com
Title: *English Made Easy* published by Orient Blackswan
Editors: Prof. E. Suresh Kumar, Prof. Sumita Roy and Prof. A. Karunaker

Semester I **5 Credits**

Unit I SHORT FICTION: "The Curb in the Sky" by James Thurber—PRONUNCIATION: consonant sounds— GRAMMAR: noun—VOCABULARY: roots, prefix and suffix—SPELLING: wrong spellings—PUNCTUATION: capitalization— CONVERSATION: introducing oneself in formal /social contexts—READING: biography of Chindula Yelamma, a Telangana Artisan— WRITING: guided writing & expansion —SOFT SKILLS: motivation and goal setting— VALUES: "Well begun is half done"

Unit II PROSE: "Happy People" by W.R. Inge— PRONUNCIATION: vowels-monophthongs— GRAMMAR: pronoun—VOCABULARY: roots, prefix & suffix— SPELLING: 'un' and 'dis' for antonyms— PUNCTUATION: capitalization— CONVERSATION: starting & controlling a conversation—READING: Million March—An Initiative for Statehood— WRITING: sequencing— SOFT SKILLS: self confidence— VALUES: "Doubt is the beginning of wisdom"

Unit III POETRY: "A Psalm of Life" by Henry Wadsworth Longfellow— PRONUNCIATION: vowels-diphthongs—GRAMMAR: auxiliary verbs— VOCABULARY: homonyms, homographs, homophones— SPELLING: words ending 'tion' or 'sion'— PUNCTUATION: full stop and comma— CONVERSATION: describing your college and course of study— READING: Batukamma: Telangana's Cultural Identity— WRITING: paragraph, descriptive writing— SOFT SKILLS: non-verbal communication/body language— VALUES: "Actions speak louder than words"

Unit IV DRAMA: "The Dear Departed" (an extract) by Stanley Houghton— PRONUNCIATION: varied pronunciations of the same letter— GRAMMAR: main verbs and tenses— VOCABULARY: collocation— SPELLING: words ending 'tion' or 'ment'— PUNCTUATION: question and exclamation marks— CONVERSATION: leaving a message on the answering machine, making an appointment on telephone— READING: Husain Sagar Lake: A Well known Tourist Attraction— WRITING: dialogue writing— SOFT SKILLS: interpersonal skills— VALUES: "Faith will move mountains"

Unit V Language & Soft Skills Lab: Pronunciation, Conversation, Reading, Soft Skills and Values

Department of English
Palamuru University

CBCS General English Syllabus (with effect from 2016-17)

Semester II **5 Credits** **5 hours of instruction per week**

Prescribed Text Book for Semesters I & II: *English Made Easy* published by Orient Blackswan. Editors: Prof. E. Suresh Kumar, Prof. Sumita Roy and Prof. A. Karunaker

Unit I SHORT FICTION: "A Visit of Charity" by Eudora Welty —GRAMMAR: Non-finite verbs— VOCABULARY: Simile and metaphor— SPELLING: Use of 'ie' and 'ei'— PUNCTUATION: Semicolon—WRITING: Note taking and note making

Unit II PROSE: "Benaras" by Aldous Huxley —GRAMMAR: Adjective— VOCABULARY: Oxymoron and hyperbole— SPELLING: Use of 'able' and 'ible'— PUNCTUATION: Colon and long dash— WRITING: Informal letter

Unit III POETRY: "The Sun is Warm" by P.B Shelley—GRAMMAR: Articles— VOCABULARY: Portmanteau words, loan words— SPELLING: Use of '-ic', '-ive', '-ity', '-al' '-ance', '-ence'— PUNCTUATION: Hyphen and long dash— WRITING: Formal letter

Unit IV DRAMA: An extract of Act II, Sc 3 from *Julius Caeser* by Shakespeare— GRAMMAR: Adverb— VOCABULARY: Palindromes— SPELLING: Changes of spelling from noun-verb-adjective-adverb— PUNCTUATION: Inverted commas—WRITING: Business letter

Unit V **Language & Soft Skills Lab**: (Pronunciation, Conversation, Reading, Soft Skills and Values)

PRONUNCIATION: Plosives—Fricatives—Affricates and nasals—Lateral, frictionless continuants, semi vowels

CONVERSATION: Asking for advice/information—Making/accepting/ refusing a request— Conducting a meeting/seeking opinion of team members— Appearing for a job interview/conducting a job interview

READING: Hyderabad city: the heart of Telangana—Burrakatha—Cultural identity of Telangana—Handicrafts of Telangana

SOFT SKILLS: Time management—Leadership—Stress management— Etiquette and grooming

VALUES: "Time and tide wait for no one"— "The pen is mightier than the sword" — "Practice makes one perfect"— "Necessity is the mother of invention"

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CBCS General English Syllabus

Semester III
(2017-18)

Prescribed Textbook for Semesters III & IV: *English in Use*. Eds. T Vijay Kumar, K Durga Bhavani, YL Srinivas. Published by Macmillan.

Semester III **5 Credits** **5 hrs of instruction per week**

Unit I	1) Poem: Charlotte Brontë "Life" 2) Short Story: Rabindranath Tagore "A Wrong Man in Workers' Paradise" 3) Vocabulary: Synonyms, Antonyms 4) Grammar: Prepositions (including Prepositional Phrases)
Unit II	1) Poem: Kamala Das "Punishment in Kindergarten" 2) Essay: RK Narayan "Toasted English" 3) Vocabulary: British/American English Common Words 4) Grammar: Voice
Unit III	1) Poem: Langston Hughes "As I Grew Older" 2) Speech: BR Ambedkar "Grammar of Anarchy" (Excerpt) 3) Vocabulary: Phrasal Verbs 4) Grammar: Concord
Unit IV	Writing-I (Essay Writing) 1) Discursive Essay 2) Argumentative Essay 3) Vocabulary: Idioms 4) Grammar: Connectives
Unit V	Writing-II (Report Writing) 1) Business Reports 2) Media Reports 3) Vocabulary: Technical Vocabulary (Business, Media) 4) Grammar: Reported Speech (Including Reporting Verbs)

Department of English
Palamuru University

Course Structure under the Reorganized CBCS
(with effect from AY 2019-20)

Subject: English (First Language)

BA/BSc/BCom and other UG Courses

Course Objectives
The 20-credit, six-semester course seeks to enhance the English language skills of undergraduate students by

- Strengthening their grammar and vocabulary
- Improving their reading and writing skills
- Enhancing their listeningand speaking skills
- Imparting to them important life skills and human values
- Encouraging them to think creatively and critically
- Exposing them to a variety of content-rich texts
- Expanding their emotional intelligence
- Developing gender sensitivity among them.

Course Outcomes
On successful completion of the 20-credit, six-semester course, an undergraduate student will be able to

- Read, understand, interpret a variety of written texts
- Undertake guided and extended writing using appropriate vocabulary and correct grammar
- Listen with comprehension and speak with confidence in both formal and informal contexts with reasonable fluency and acceptable pronunciation
- Become employable with requisite professional skills, ethics and values.

Credits, Syllabus, and Instructional Hours

Semester	**Number of Credits**	**Number of Units**	**Instruction (Clock hours per week)**
I	4	4	4
II	4	4	4
III	3	3	3
IV	3	3	3
V	3	3	3
VI	3	3	3
Total	**20**	**20**	**20**

Department of English
Palamuru University
Reorganized CBCS
(With effect from AY 2019-20)

Subject: English (First Language)

Semesters I & II

Course Code:
Instruction: 4 clock hours per week
Credits: 4
Continuous Assessment: 20 Marks
University Examination: 80 Marks
Duration of University Examination: 3 Hours

Course Structure
Four equal units per semester integrating English language learning with ethics, values, and skill development.

The syllabus will include, but is not limited to, the following components:

Units	Components
I	**Reading and Vocabulary** Passages for language enrichment and personality development (including comprehension, interpretation, creative critical thinking, and empathy) **Writing and Grammar** (including Spelling and Punctuation) Guided writing, Sequencing, Paragraph, Descriptive writing, Dialogue writing, Note taking, Note making, Letter writing; Parts of speech, Tenses, Articles **Listening and Speaking** (including Conversation and Pronunciation) Self-introduction, Situation and Function-based conversations; English Speech Sounds (Vowels and Consonants) **Soft Skills and Values** Inculcating self-confidence, and effecting desirable attitudinal and behavioural changes.
II	
III	
IV	
V	
VI	
VII	
VIII	

Semesters III-VI

Course Code:
Credits: 3 per semester
Instruction: 3 clock hours per week
Continuous Assessment: 20 Marks
University Examination: 80 Marks
Duration of University Examination: 3 Hours

Course Structure
Three equal units per semester integrating English language learning with ethics, values, and skill development.

Two units (one each in Sem V and VI) will be designed to inculcate gender sensitivity. Appropriate course material will be prepared.

The syllabus will include, but is not limited to, the following components:

Unit	Components
I	**Reading**: Fictional and Non-Fictional Prose, Poetry, and Drama for Comprehension, Interpretation, Literary Appreciation, Societal Awareness, Gender Sensitivity, Ecological Awareness, Constitutional Values. **Writing**: Process writing, Script writing, Personal Diary/journal writing, Essay Writing (different kinds), Report Writing (different kinds), CV Writing, Review/Article Writing. **Grammar**: Prepositions, Voice, Connectives, Reported Speech, Conditionals, Common Errors, Concord, Determiners, Degrees of comparison, Relative clauses, Framing questions, Transformation of sentences. **Vocabulary**:Synonyms, Antonyms, Anagrams, Acronyms, Rhyming words, Picture vocabulary, Indianisms, British-American English, Phrasal Verbs, Idioms, Technical Vocabulary, Commonly Confused Words.
II	
III	
IV	
V	
VI	
VII	
VIII	
IX	
X	
XI	
XII	

In addition, the proposed syllabus of Semesters III-VI will impart, as in Semesters I and II, either directly or through the use of authentic materials, **communication skills** (formal and informal conversation skills, debating skills, interview skills etc), **study skills** (reference skills, library skills etc), **social skills** (politeness, patience, participation, cooperation, sharing etc), **soft skills** (such as negotiation, team work, decision making, beating the odds, dealing with failure etc), and **values** (such as honesty, empathy, fortitude, selflessness etc).

Testing Pattern in the Reorganized CBCS
(With effect from AY 2019-20)

Subject: English (First Language)

BA/BSc/BCom and other UG Courses

Semesters I& II

I Internal Assessment: 20 marks

II End-Semester Exam: 80 marks

- Section I: 6 short answer Qs to be set. 4 to be answered.
  4 x 5 marks each = 20 marks
- Section II: 4 long answer Qs with internal choice to be set.
  4 x 15 marks each = 60 marks

Note: Questions should cover all units. In Section I, Q 1 to be based on Unit I, Q 2 on Unit II and so on. In Section II, Q 7 A & B to be based on Unit I, Q 8 A & B to be based onUnit II and so on.

Department of English
Palamuru University

Semesters I and II

Prescribed Text Book for Semesters I and II: English Made Easy. Editors: E. Suresh Kumar, Sumita Roy and A. Karunaker. Orient Blackswan, 2016.

Semester I

Lesson 1

SHORT FICTION: "The Curb in the Sky" by James Thurber—PRONUNCIATION: Consonant sounds—GRAMMAR: Noun—VOCABULARY: Word roots, prefixes and suffixes—SPELLING: Commonly misspelt words—PUNCTUATION: Capitalisation— CONVERSATION: Introducing yourself in a formal situation—READING PASSAGE: Chindula Yelamma—WRITING: Expansion of a sentence into a paragraph—SOFT SKILLS: Motivation and goal setting—VALUE ORIENTATION: Well begun is half done

Lesson 2

PROSE: "Happy People" by William Ralph Inge—PRONUNCIATION: Vowels: monophthongs—GRAMMAR: Pronoun—VOCABULARY: Word roots, prefixes, suffixes—SPELLING: Forming antonyms using un- and dis—PUNCTUATION: Capitalisation— CONVERSATION: Starting and sustaining a conversation—READING PASSAGE: The Million March—WRITING: Sequencing—SOFT SKILLS: Self-confidence—VALUE ORIENTATION: Doubt is the beginning of wisdom

Lesson 3

POETRY: "A Psalm of Life" by Henry Wadsworth Longfellow—PRONUNCIATION: Vowels: diphthongs—GRAMMAR: Auxiliary verbs—VOCABULARY: Homonyms, homographs, homophones—SPELLING: Words ending in -tion and -sion— PUNCTUATION: Full stop and comma—CONVERSATION: Describing your college and course of study—READING PASSAGE: Bathukamma—WRITING: Descriptive writing—SOFT SKILLS: Non-verbal communication and body language—VALUE ORIENTATION: Actions speak louder than words

Lesson 4

DRAMA: "The Dear Departed" (an extract) by Stanley Houghton—PRONUNCIATION: Letters with varied pronunciations—GRAMMAR: Main verbs and tenses—VOCABULARY: Collocations—SPELLING: Words ending in -tion and –ment—PUNCTUATION: Question mark and exclamation mark—CONVERSATION: Leaving a voicemail, making an appointment over phone—READING PASSAGE: Husain Sagar—WRITING: Dialogue writing—SOFT SKILLS: Interpersonal skills—VALUE ORIENTATION: Faith can move mountains.

Semester II

Lesson 5

SHORT FICTION: “A Visit of Charity” by Eudora Welty—PRONUNCIATION: Plosive—GRAMMAR: Non-finite verbs—VOCABULARY: Simile and metaphor—
SPELLING: Use of ie and ei—PUNCTUATION: Semicolon—
CONVERSATION:
Asking for information— READING PASSAGE: Hyderabad—WRITING: Note making—SOFT SKILLS: Time management—VALUE ORIENTATION: Time and tide wait for no one

Lesson 6

PROSE: “Benares” by Aldous Huxley—PRONUNCIATION: Fricative—
GRAMMAR:
Adjective—VOCABULARY: Oxymoron and hyperbole—SPELLING: Words ending in -able or -ible— PUNCTUATION: Colon and em-dash—
CONVERSATION:
Requests—READING PASSAGE: Burrakatha—WRITING: Informal letters—
SOFT SKILLS: Leadership—VALUE ORIENTATION: The pen is mightier than the sword

Lesson 7

POETRY: ‘Stanzas Written in Dejection, Near Naples’ by Percy Bysshe Shelley—
PRONUNCIATION: Affricate and nasal—GRAMMAR: Article—
VOCABULARY:
Portmanteau words and loan words—SPELLING: Words ending in -al, -ance, -ence, -
ic, -ity, and -ive—PUNCTUATION: Hyphen— CONVERSATION: Conducting a meeting—READING PASSAGE: ‘Flower boat’ by Sunkara Ramesh—WRITING: Formal letters—SOFT SKILLS: Stress management—VALUE ORIENTATION: Practice makes perfect

Lesson 8

DRAMA: Shakespeare Retold: Julius Caesar (extract)— PRONUNCIATION: Approximant— GRAMMAR: Adverb—VOCABULARY: Palindromes—
SPELLING:
Derived forms of words—PUNCTUATION: Inverted comma—
CONVERSATION:
Interview skills—READING PASSAGE: The handicrafts of Telangana—
WRITING:
Formal letters—SOFT SKILLS: Etiquette and grooming—VALUE ORIENTATION:
Necessity is the mother of invention.

Department of English
Palamuru University

Reorganized CBCS Curriculum with effect from AY 2019-20

English (First Language)

Question Paper Pattern

Time: 3 Hours **Max Marks: 80**

Semester I

Note: All questions in Section A and B are to be based on the lessons and exercises included in the prescribed textbook.

Section A
(4 x 5 marks = 20 marks)

6 questions to be set. Any 4 to be answered.

- Q 1-4 to be based on the following components of Units I-IV
    - Pronunciation, Grammar, Vocabulary, Spelling, Punctuation
- Q 5 to be based on the following component of Units I-IV
    - Writing
- Q 6 to be based on the following components of Units I-IV
    - Soft Skills, Value Orientation

Section B
(4 x 15 marks = 60 marks)

Qs 7-10 will have internal choice. Students can answer either A or B.

- Q 7 A & B are to be based on the following component of Unit I
    - Short fiction
- Q 8 A & B are to be based on the following component of Unit II
    - Prose
- Q 9 A & B are to be based on the following component of Unit III
    - Poetry
- Q 10 A & B are to be based on the following component of Unit IV
    - Drama

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CBCS General English Syllabus

Semesters III & IV (2020-21)

Prescribed textbook for Semesters III & IV: *English in Use: A Textbook for College Students*. Eds. T Vijay Kumar, K Durga Bhavani, YL Srinivas. Second Edition, Macmillan, 2020.

Semester III

3 Credits **3 hrs of instruction per week**

Unit I	Poem	Charlotte Brontë "Life"
	Prose	Rabindranath Tagore "A Wrong Man in Workers' Paradise"
	Vocabulary	Synonyms, Antonyms
	Grammar	Prepositions (including Prepositional Phrases)
Unit II	Poem	Kamala Das "Punishment in Kindergarten"
	Prose	RK Narayan "Toasted English"
	Vocabulary	British and American English (Common Words)
	Grammar	Voice
Unit III	Essay Writing	Discursive Essay, Argumentative Essay
	Vocabulary	Idioms
	Grammar	Connectives

Semester IV

3 Credits **3 hrs of instruction per week**

Unit IV	Poem	Langston Hughes "As I Grew Older"
	Prose	BR Ambedkar "Grammar of Anarchy" (Excerpt)
	Vocabulary	Phrasal Verbs
	Grammar	Concord
Unit V	Poem	Tennyson "Flower"
	Prose	Ruskin Bond "The Kitemaker"
	Vocabulary	Commonly Confused Words
	Grammar	Determiners
Unit VI	Report Writing	Business Reports, Media Reports
	Vocabulary	Technical Vocabulary (Business, Media)
	Grammar	Reported Speech (Including Reporting Verbs)

Department of English
Palamuru University

CBCS General English Syllabus

Semesters V & VI (2021-22)

Prescribed textbook for Semesters V & VI: *English in Action: A Textbook for College Students*. Eds. T Vijay Kumar, K Durga Bhavani, YL Srinivas. Macmillan, 2020.

Semester V

3 Credits **3 hrs of instruction per week**

Unit I	Poem	AK Ramanujan "Ecology"
	Prose	Henry Hitchings "What's the Language of the Future?" (Excerpt)
	Vocabulary	Indianisms
	Grammar	Framing Questions (including tag questions)
Unit II	**Gender Sensitization**	
	Poem	Jamaica Kincaid "Girl"
	Prose	Emma Watson "Gender Equality Is Your Issue Too"
	Vocabulary	Analogy and Odd Word Out
	Grammar	Verbs
Unit III	Writing Reviews	Film Review, Book Review
	Vocabulary	Technical vocabulary (Film, Literature)
	Grammar	Conditionals

Semester VI

3 Credits **3 hrs of instruction per week**

Unit IV	Poem	Roald Dahl "Television"
	Prose	JK Rowling "The Fringe Benefits of Failure, and the Importance of Imagination" (Excerpt)
	Vocabulary	One-word Substitutes
	Grammar	Relative Clauses
Unit V	**Gender Sensitization**	
	Poem	Elizabeth Ralph Mertz "Accomplishments"
	Prose	Chimamanda Ngozi Adichie "Third Suggestion" (An extract from Dear Ijeawele, or A Feminist Manifesto in Fifteen Suggestions)
	Vocabulary	Formal and Informal Vocabulary
	Grammar	Sentence Types
Unit VI	CV Writing	Chronological CV, Functional CV
	Vocabulary	Appropriacy
	Grammar	Common Errors

Subject: **English (First Language)**

BA/BSc/BCom and other UG courses

With effect from: **AY 2021–22**

Prescribed textbook for Semesters I and II: ***The English Turf***, edited by C. Muralikrishna and Y.L. Srinivas, published by Orient Blackswan, 2021.

SEMESTER I

Unit 1

POEM: 'In the Bazaars of Hyderabad' by Sarojini Naidu · PROSE: 'The Eyes are Not Here' by Ruskin Bond · VOCABULARY: Word Roots · GRAMMAR: Nouns · SPEAKING: Getting Someone's Attention and Interrupting · POST-READING: Creativity

Unit 2

POEM: 'If–' by Rudyard Kipling · PROSE: 'On Saying Please' by A.G. Gardiner · VOCABULARY: Prefixes and Suffixes · GRAMMAR: Pronouns · SPEAKING: Giving Instructions and Seeking Clarifications · POST-READING: Interpersonal Skills

Unit 3

POEM: 'Ulysses' by Alfred Tennyson · PROSE: 'Seeing People Off' by Max Beerbohm · VOCABULARY: Homonyms, Homographs, Homophones · GRAMMAR: Adjectives · SPEAKING: Asking for and Giving Opinions · POST-READING: Motivation

Unit 4

POEM: 'On His Having Arrived at the Age of Twenty-three' by John Milton · PROSE: 'Shyness My Shield' by M.K. Gandhi · VOCABULARY: Collocation GRAMMAR: Articles · SPEAKING: Agreeing and Disagreeing with Opinions · POST-READING: Self-analysis

SEMESTER II

Unit 5

POEM: 'The Felling of the Banyan Tree' by Dilip Chitre · PROSE: 'The Bet' by Anton Chekhov · VOCABULARY: Oxymoron and Hyperbole · GRAMMAR: Main Verbs and Tenses · WRITING: Paragraph Writing Essentials · POST-READING: Decision-making

Unit 6

POEM: 'A Walk by Moonlight' by Henry Derozio · PROSE: 'How the Coronavirus Sparked a Wave of Innovation in India' by Sreevas Sahasranamam · VOCABULARY: Loan Words · GRAMMAR: Auxiliary Verbs · WRITING: Sequencing · POST-READING: Holistic Health

Unit 7

POEM: 'A Different History' by Sujata Bhatt · PROSE: 'Nobel Lecture, 7 December 1993' (extract) by Toni Morrison · VOCABULARY: Portmanteau Words · GRAMMAR: Non-finite Verbs · WRITING: Descriptive Writing · POST-READING: Conflict Resolution

Unit 8

POEM: Lady Macbeth's Speech from *Macbeth* Act I, Scene 5 by William · Shakespeare · PROSE: 'How I Became a Public Speaker' (abridged) by G.B. Shaw · VOCABULARY: Simile and Metaphor · GRAMMAR: Adverbs WRITING: Argumentative Writing · POST-READING: Ethical Behaviour

A meeting of **U.G. Syllabus Review Committee**, Hindi Department, was held today i.e. on **14-06-2019 at 10:30. A.M.** and the following decisions were taken :-

1. As per the instructions of the Council of Higher Education, Telangana State, it has been resolved to extend the Second Language Hindi to U.G. Third Year also i.e. 5th and 6th Semester also. The syllabus, particularly that of the Third year would be a job oriented one.

2. The total Syllabus of U.G. Second Language Hindi would be of 20 Credits. Viz., 1st Year : 08 Credits (1st Semester : 04, 2nd Semester : 04), 2nd Year : 06 Credits (3rd Semester: 03, 4th Semester: 03) and 3rd Year : 06 Credits (5th Semester: 03, 6th Semester: 03)

3. Likewise the Syllabus for 1st Year (1st and 2nd Semester) and 2nd Year (3rd & 4th Semester) was restructured as per the Credits allotted by deleting certain lessons/topics.

4. The Third Year (5th & 6th) Semester Syllabus would be employment oriented one as per the latest market trends. The same would be prepared in the due course of time.

The Second Semester will consist of **04 Credits.** It was resolved unanimously by the Committee Members, to have the following Lessons of the Prose Book **'Gadya Darpan'**, for the B.A., B.Com., B.Sc., II Semester.

The details of the Lessons marked from the said book for B.A., B.Com., and B.Sc. II Semester (Second Language) are as follows.

(A) GADYA DARPAN (for II Semester B.A., B.Com, B.Sc.)

6. Dharti Ka Swarg	Vishnu Prabhakar
7. Taayee	Vishwambharnath Sharma 'Kaushik'
8. Rajneeti Kaa Bantwaaraa	Harishnakar Parsaai
9. Swami Vivekaanand	Vamshidhar Vidyaalankar
10. Paryaavaran Aur Hum	Rajeev Garg

The following stories have been recommended for the **II Semester from Non Detail 'Kathaa Sindhu'** are as follows.

(B) KATHAA SINDHU (for II Semester B.A., B.Com, B.Sc.)

6. Gadal	Raangeya Raaghav
7. Hansoo Yaa Roun	Vinayak Rao Vidyaalankar
8. Waapasi	Usha Priyamwadaa
9. Sevaa	Mamataa Kaaliyaa
10. Siliyaa	Susheelaa Takbhore

With regard to Grammar the following topics/Subjects were unanimously accepted and recommended for the II Semester by the members.

(C) GRAMMAR RECOMMENDED (forII Semester B.A., B.Com, B.Sc.)

V. Sandhi Vichched
VI. Antonyms (Vilom Shabd)
VII. Letter Writing: Personal Letters, Official Letters. Letter of Complaints, Application for Appointment.

REFERENCE BOOKS RECOMMENDED BY THE COMMITTEE.

1. Saral Hindi Vyaakaran : Dakshin Bharat Hindi Prachaar Sabhaa.
2. Hindi Vyaakaran : Shyam Chandra Kapoor
3. Prathamik Vyaakaran Evam Rachanaa : Harish Chandra.

The Third Semester will consist of **03 Credits**. After discussing in detail the committee members decided that the Title of the Poetry Book will be **'Kavya Nidhi'**, which will consist of **12 Poets** altogether.

It ws resolved to continue Hindi Sahitya Ka Itihas in the Syllabus without any change. Hindi Sahitya Ka Itihas consists of four periods Viz., Aadi Kaal, Bhakti Kaal, Shringaar Kaal and Adhunik Kaal. It was resolved to have Aadi Kaal and Bhakti Kaal in the III Semester and Shringaar Kaal and Adhunik Kaal will be taught in the IV Semester.

The details of the Poets and Poems chosen for B.A., B.Com. and B.Sc. III Semester (Second Language Hindi) are as follows.

I – Kavya Nidhi (For III Semester B.A.,B.Com.,B.Sc.)

1. Kabeer Das	Kabeer Ke Dohe
2. Tulasi Das	Tulasi Das Ke Dohe
3. Maithilisharan Gupt	Navyuvakon Se
4. Ayodhya Singh Upadhyay 'Harioudh'	Phool Aur Kaanta
5. Jai Shankar Prasad	Bharat
6. Subhadra Kumari Chauhan	Mera Nayaa Bachpan

II – Hindi Sahitya Ka Itihas : Main Tendencies of the Following ages.

1. Aadi Kaal : Naamkaran, Paristhitiyaan, Pravrittiyaan
2. Bhakti Kaal : Naamkaran, Paristhitiyaan, Pravrittiyan
3. Brief study of the following Authors and Poets.
   - Chand Bardaai
   - Soor das
   - Tulasi das
   - Sumitranandan Pant
   - Bharatendu Harishchandra
   - Maithilisharan Gupt
   - Ramdhari Singh 'Dinkar'

III – General Essay :

Sahitya Aur Samaaj
Vidyaarthi Aur Rajneeti
Vigyaan : Vardaan Yaa Abhishaap
Adhunik Shikshaa Aur Naari
Shikshaa Par Bhoomandalikaran Kaa Prabhaav
Jeewan Mein Swachchataa Kaa Mahatva

IV – Translation from English or Telugu to Hindi.

The Fourth Semester will be of **3 Credits.**

I – Kavya Nidhi (For IV Semester B.A.,B.Com.,B.Sc.)

7. Raheem	Raheem Ke Dohe
8. Bihaari	Bihari Ke Dohe
9. Sooryakant Tripathi 'Nirala'	Bhagwan Buddh Ke Prati
10. Mahadevi Varma	Ve Muskaate Phool Nahin
11. Ramdhari Singh 'Dinkar'	Kalam Aur Talwaar
12. Harivansh Rai Bachchan	Tu Kyon Baith Gayaa Hai Path Par

II – Hindi Sahitya Ka Itihas : Main Tendencies of the following ages

3. Shringaar Kaal : Naamkaran, Paristhitiyaan, Pravrittiyan
4. Aadhunik Kaal :
   (a) Bhartendu Yug, Dwivedi Yug, Chchyaawaad, Pragatiwaad, Prayogwaad.
   (b) Hindi Gadya Kaa Vikaas, Hindi Kahaani, Upanyaas Aur Naatak
5. Brief Study of the Following Authors and Poets :
   Meera Bai
   Bihaari
   Mahaveer Prasad Dwivedi
   Premchand
   Nirala
   Mahadevi Varma
   Agyeya

III – Essays on General Topics :
Vidyaarthi Aur Anushaasan
Aaj Ki Shiksha Neeti
Bharat Mein Berozgaari Ki Samasyaa
Paryaavaran Aur Pradooshan
Bharat Mein Badhati Huyi Jan Sankhyaa
Bharatiya Sanskriti

IV – Comprehension

Reference Books :-

1. Hindi Sahitya Kaa Itihas – Prof.T.Mohan Singh
2. Hindi Sahitya Kaa Sankshipt Itihas – Dr.Vidyasagar Dayal
3. Hindi Sahitya Kaa Sankshipt Itihas – Dr.Tej Narayan Jaiswal
4. Hindi Sahitya Kaa Subodh Itihas – Gulab Rai

Note:- Unit Wise division of the syllabus for the Four Semesters is as the following:-

SYLLABUS FOR
B.A., B.COM., B.Sc. FIRST SEMESTER HINDI, (04 CREDITS)
SECOND LANGUAGE
PALAMURU UNIVERSITY, W.E.F. 2019-2020

FIRST UNIT – GADAYA DARPAN

1. Charitra Sangathan	Babu Gulaab Raai
2. Baazaar Darshan	Jainendra Kumar

SECOND UNIT – GADYA DARPAN

1. Bhaabhi	Mahadevi Varma
2. Bharat Mein Sanskriti Sangam	Ramdhari Singh 'Dinkar'
3. Raashtra Kaa Swaroop	Vasudev Sharan Agrawal

THIRD UNIT – KATHA SINDHU

1. Sadgati	Premchand
2. Chhotaa Jaadoogar	Jaya Shankar Prasad
3. Sach Kaa Sauda	Sudarshan
4. Praayashchitt	Bagwati Charan Varma
5. Chief Ki Daawat	Bheeshma Saahani

FOURTH UNIT - GRAMMAR

1. Rewriting of Sentences as directed based on Gender, Number, Tense, Case & Voice.
2. Correction of Sentences.
3. Usages of words into Sentences.
4. Official Hindi, Administrative Terminology (Prashaasanik Shabdaavali)
   Official Designations (Padnaam)
   a) Translation of Hindi words into English.
   b) Translation of English words into Hindi.

REFERENCE BOOKS RECOMMENDED BY THE COMMITTEE

1. Saral Hindi Vyaakaran : Daksin Bharat Hindi Prachaar Sabhaa.
2. Hindi Vyaakaran : Shyam Chandra Kapoor.
3. Prathmik Vyakaran Evam Rachana : Harish Chandra.

SYLLABUS FOR
B.A., B.COM., B.Sc. SECOND SEMESTER HINDI, (04 CREDITS)
SECOND LANGUAGE
PALAMURU UNIVERSITY, W.E.F. 2019-2020

FIRST UNIT – GADAYA DARPAN

1. Dharti Ka Swarg	Vishnu Prabhakar
2. Taayee	Vishwambharnath Sharma 'Kaushik'

SECOND UNIT – GADYA DARPAN

1. Rajneeti Ka Bantwara	Hari Shankar Parasaai
2. Swami Vivekanand	Vanshidhar Vidyalankar
3. Paryawaran Aur Hum	Rajeev Garg

THIRD UNIT – KATHA SINDHU

1. Gadal	Raangeya Raaghav
2. Hansoo Yaa Roun	Vinayak Rao Vidyaalankar
3. Waapasi	Usha Priyamwadaa
4. Sevaa	Mamataa Kaaliyaa
5. Siliyaa	Susheelaa Takhbore

FOURTH UNIT - GRAMMAR

1. Sandhi Vichched
2. Antonyms (Vilom Shabd)
3. Letter Writing: Personal Letters, Official Letters, Letter of Complaints, Applications for Appointment.

REFERENCE BOOKS RECOMMENDED BY THE COMMITTEE

1. Saral Hindi Vyaakaran : Daksin Bharat Hindi Prachaar Sabhaa.
2. Hindi Vyaakaran : Shyam Chandra Kapoor.
3. Prathmik Vyakaran Evam Rachana : Harish Chandra.

SYLLABUS FOR
B.A., B.COM., B.Sc. THIRD SEMESTER HINDI, (03 CREDITS)
SECOND LANGUAGE
PALAMURU UNIVERSITY, W.E.F. 2020-2021

FIRST UNIT – KAVYA NIDHI

1. Kabeer Ke Dohe	Kabeer Das
2. Tulasi Das Ke Dohe	Tulasi Das
3. Navayuvakon Se	Maithilisharan Gupt
4. Phool Aur Kaanta	Ayodhya Singh Upadhyaya 'Harioudh'
5. Bharat	Jaya Shankar Prasad
6. Mera Nayaa Bachpan	Subhadra Kumari Chauhan

SECOND UNIT – HINDI SAHITYA KA ITIHAS : MAIN TENDENCIES OF THE FOLLOWING AGES:

1. Aadi Kaal : Naamkaran, Paristhitiyaan, Pravrittiyaan
2. Bhakti Kaal : Naamkaran, , Paristhitiyaan, Pravrittiyaan

Hindi Sahitya Ka Itihas : Brief Study of the Following Authors and Poets:-
Chand Bardaai
Soor Das
Tulasi Das
Sumitranandan Pant
Bharatendu Harishchandra
Maithilisharan Gupt
Ramdhari Singh 'Dinkar'

THIRD UNIT–GENERAL ESSAY (ON SOCIO-POLITICAL AND LITERARY SUBJECTS) & TRANSLATION

A) Essay:-
Sahitya Aur Sammaj
Vidyaarthi Aur Rajneeti
Vigyaan : Vardaan Yaa Abhishaap
Adhunik Shikshaa Aur Naari
Shikshaa Par Bhoomandalikaran Kaa Prabhaav
Jeewan Mein Swachchataa Kaa Mahatva.

B) Translation:-

REFERENCE BOOKS:-

1. Hindi Sahitya Kaa Ithihas – Prof.T.Mohan Singh
2. Hindi Sahitya Kaa Sankshipt Itihas – Dr.Vidyasagar Dayal
3. Hindi Sahitya Kaa Sankshipt Itihas – Dr.Tej Narayan Jaiswal
4. Hindi Sahitya Kaa Subodh Ithihas – Gulab Rai

SYLLABUS FOR
B.A., B.COM., B.Sc. FOURTH SEMESTER HINDI, (03 CREDITS)
SECOND LANGUAGE
PALAMURU UNIVERSITY, W.E.F. 2020-2021

FIRST UNIT – KAVYA NIDHI

1. Raheem Ke Dohe.	Raheem
2. Bihari Ke Dohe	Bihari
3. Bhagwan Buddh Ke Prati	Soorya Kant Tripathi 'Nirala'
4. Ve Muskaate Phool Nahin	Mahadevi Varma
5. Kalam Aur Talwaar	Ramdhari Singh 'Dinkar'
6. Tu Kyon Baith Gayaa Hai Path Par	Harivansh Rai Bachchan

SECOND UNIT – HINDI SAHITYA KA ITIHAS : MAIN TENDENCIES OF THE FOLLOWING AGES:

3. Reethi Kaal : Naamkaran, Paristhitiyaan, Pravrittiyaan
4. Aadhunik Kaal :
   a) Bhartendy Yug, Dwivedi Yug, Chchyaawaad, Pragatiwaad, Prayogwaad.
   b) Hindi Gadya Kaa Vikaas : Kahaani, Upanyaas Aur Naatak.

Brief Study of the Following Authors and Poets:-

Meera Bai
Bihari
Mahaveer Prasad Dwivedi
Premchand
Mahadevi Varma
Nirala
Agyeya

THIRD UNIT–GENERAL ESSAY AND COMPREHENSION :

A) Essay :-

Vidyaarthi Aur Anushaasan
Aaj Ki Shiksha Neeti
Bharat Mein Berozgaari Ki Samasyaa
Paryaavaran Aur Pradooshan
Bharat Mein Badhati Huyi Jansankhyaa
Bharatiya Sanskriti

B) Comprehension :-

REFERENCE BOOKS:-

1. Hindi Sahitya Kaa Ithihas – Prof.T.Mohan Singh
2. Hindi Sahitya Kaa Sankshipt Itihas – Dr.Vidyasagar Dayal
3. Hindi Sahitya Kaa Sankshipt Itihas – Dr.Tej Narayan Jaiswal
4. Hindi Sahitya Kaa Subodh Ithihas – Gulab Rai

B.A., B.Com., B.Sc., B.B.A, B.S.W. (C.B.C.S)

1st Semester
Hindi 2nd Language
Scheme of Question Paper

Time : 3 hrs **Max. Marks. 80**

खण्ड– 'क' (लघु प्रश्नोत्तर)

I. किन्हीं चार प्रश्नों के संक्षेप में उत्तर दीजिए 4x5= 20

1) 'गद्य दर्पण' से प्रश्न।
2) 'गद्य दर्पण' से प्रश्न।
3) 'कथा सिन्धु' से प्रश्न।
4) 'कथा सिन्धु' से प्रश्न।
5) व्याकरणांशों से प्रश्न।
6) व्याकरणांशों से प्रश्न।

खण्ड– 'ख' (दीर्घ प्रश्नोत्तर)

II. निम्नलिखित प्रश्नों के उत्तर विस्तार से लिखिए 4x15= 60

7) 'गद्य दर्पण' से दिये गए 4 गद्यांशों में से किन्हीं दो की सन्दर्भ सहित व्याख्या करना है। $2x7\frac{1}{2} = 15$

8) 'गद्य दर्पण' से पूछे गए दो निबन्धात्मक प्रश्नों में से किसी एक का उत्तर लिखना है। 1x15= 15

9) (क) 'कथा सिन्धु' से पूछे गए दो निबन्धात्मक प्रश्नों में से किसी एक का उत्तर लिखना है। 1x10= 10

(ख) 'कथा सिन्धु' से दिये गए तीन पात्रों में से किसी एक का चरित्र–चित्रण करना है। 1x5= 5

10) (क) दिये गए 6 वाक्यों में से किन्हीं 4 वाक्यों को निर्देशानुसार लिखना है। 4x1= 4

(ख) दिये गए 5 अशुद्ध वाक्यों में से किन्हीं 3 के शुद्ध रूप लिखना है। 3x1= 3

(ग) दिये गए 6 शब्दों में से 3 का अपने वाक्यों में प्रयोग करना है। 3x1= 3

(घ) दिये गए 8 (4 अंग्रेज़ी + 4 हिन्दी) प्रशासनिक शब्दों/पदनामों में से किन्हीं 5 का हिंदी/अंग्रेज़ी में अनुवाद करना है। 5x1= 5

B.A., B.Com., B.Sc., B.B.A, B.S.W. (C.B.C.S)

2nd Semester
Hindi 2nd Language
Scheme of Question Paper

Time : 3 hrs **Max. Marks. 80**

खण्ड– 'क' (लघु प्रश्नोत्तर)

I. किन्हीं चार प्रश्नों के संक्षेप में उत्तर दीजिए 4x5= 20

1) 'गद्य दर्पण' से प्रश्न।
2) 'गद्य दर्पण' से प्रश्न।
3) 'कथा सिन्धु' से प्रश्न।
4) 'कथा सिन्धु' से प्रश्न।
5) व्याकरणांशों से प्रश्न।
6) व्याकरणांशों से प्रश्न।

खण्ड– 'ख' (दीर्घ प्रश्नोत्तर)

II. निम्नलिखित प्रश्नों के उत्तर विस्तार से लिखिए 4x15= 60

7) 'गद्य दर्पण' से दिये गए 4 गद्यांशों में से किन्हीं दो की सन्दर्भ सहित व्याख्या करना है। $2x7\frac{1}{2}= 15$

8) 'गद्य दर्पण' से पूछे गए दो निबन्धात्मक प्रश्नों में से किसी एक का उत्तर लिखना है। 1x15= 15

9) (क) 'कथा सिन्धु' से पूछे गए दो निबन्धात्मक प्रश्नों में से किसी एक का उत्तर लिखना है। 1x10= 10

(ख) 'कथा सिन्धु' से दिये गए तीन पात्रों में से किसी एक का चरित्र–चित्रण करना है। 1x5= 5

10) (क) दिये गए 8 शब्दों में से किन्हीं 4 का सन्धि–विच्छेद करना है। 4x1= 4

(ख) दिये गए 8 शब्दों में से किन्हीं 4 के विलोम रूप लिखना है। 4x1= 4

(ग) पूछे गए दो (औपचारिक/अनौपचारिक) पत्रों में से एक को लिखना है। 1x7= 7

B.A., B.Com., B.Sc., B.B.A, B.S.W. (C.B.C.S)

3rd Semester
Hindi 2nd Language
Scheme of Question Paper

Time : 3 hrs **Max. Marks. 80**

खण्ड– 'क'

I. किन्हीं चार प्रश्नों के संक्षेप में उत्तर दीजिए 4x5= 20

1) 'काव्यनिधि' के प्राचीन पद्य भाग से प्रश्न।
2) ''काव्यनिधि' के प्राचीन पद्य भाग से प्रश्न।
3) 'काव्यनिधि' के नवीन पद्य भाग से प्रश्न।
4) 'काव्यनिधि' के नवीन पद्य भाग से प्रश्न।
5) हिन्दी साहित्य के इतिहास (आदिकाल) से प्रश्न
6) हिन्दी साहित्य के इतिहास (भक्तिकाल) से प्रश्न।

खण्ड– 'ख'

II. निम्नलिखित प्रश्नों के उत्तर विस्तार से लिखिए 4x15= 60

7) 'काव्यनिधि' से दिये गए 4 पद्यांशों में से (प्राचीन पद्य भाग से 2 और नवीन पद्य भाग से 2) किन्हीं दो की सन्दर्भ सहित व्याख्या करना है। $2x7\frac{1}{2} = 15$

8) नवीन पद्य भाग की चार कविताओं में से पूछे गए दो निबन्धात्मक प्रश्नों में से एक का उत्तर लिखना है। 1x15= 15

9) (क) 'हिन्दी साहित्य के इतिहास से पूछे गए दो निबंधात्मक प्रश्नों (आदिकाल से एक और भक्तिकाल से एक) में से किसी एक का उत्तर लिखना है। 1x10= 10

(ख) निर्धारित सात साहित्यकारों में से– दिये गए तीन साहित्यकारों में से किसी एक का संक्षिप्त परिचय लिखना है। 1x5= 5

10) (क) निर्धारित 6 विषयों (शीर्षकों) में से– दिये गए 3 निबंधों में से एक लिखना है। 1x10= 10

(ख) दिये गए 8 अंग्रेज़ी वाक्यों में से किन्हीं पाँच का हिंदी में अनुवाद करना है। 5x1= 5

B.A., B.Com., B.Sc., B.B.A, B.S.W. (C.B.C.S)

4th Semester
Hindi 2nd Language
Scheme of Question Paper

Time : 3 hrs **Max. Marks. 80**

खण्ड– 'क'

I. किन्हीं चार प्रश्नों के संक्षेप में उत्तर दीजिए 4x5= 20

1) 'काव्यनिधि' के प्राचीन पद्य भाग से प्रश्न।

2) ''काव्यनिधि' के प्राचीन पद्य भाग से प्रश्न।

3) 'काव्यनिधि' के नवीन पद्य भाग से प्रश्न।

4) 'काव्यनिधि' के नवीन पद्य भाग से प्रश्न।

5) हिन्दी साहित्य के इतिहास (रीतिकाल) से प्रश्न

6) हिन्दी साहित्य के इतिहास (आधुनिक काल) से प्रश्न।

खण्ड– 'ख'

II. निम्नलिखित प्रश्नों के उत्तर विस्तार से लिखिए 4x15= 60

7) 'काव्यनिधि' से दिये गए 4 पद्यांशों में से (प्राचीन पद्य भाग से 2 और नवीन पद्य भाग से 2) किन्हीं दो की सन्दर्भ सहित व्याख्या करना है। $2x7\frac{1}{2} = 15$

8) नवीन पद्य भाग की चार कविताओं में से पूछे गए दो निबन्धात्मक प्रश्नों में से एक का उत्तर लिखना है। 1x15= 15

9) (क) 'हिन्दी साहित्य के इतिहास से पूछे गए दो निबंधात्मक प्रश्नों (रीतिकाल से एक और आधुनिक काल से एक) में से किसी एक का उत्तर लिखना है। x10= 10

(ख) निर्धारित सात साहित्यकारों में से– दिये गए तीन साहित्यकारों में से किसी एक का संक्षिप्त परिचय लिखना है। 1x5= 5

10) (क) निर्धारित 6 विषयों (शीर्षकों) में से– दिये गए 3 निबंधों में से एक लिखना है। 1x10= 10

(ख) बोधगम्य गद्यांश– दिये गए गद्यांश से संबंधित 5 प्रश्नों का उत्तर लिखना है। 5x1= 5

From : 2019-20

Question Paper Model for all semesters

part A : 6 लघु प्रश्नों में से 4 के उत्तर लिखने होंगे। 4 x 5 = 20

Part B : 7,8,9, 10 दीर्घ प्रश्न (Internal Choice) 4 x 15 = 60

Exam	: 80
Internal Assessment	: 20
	100

डिग्री तृतीय वर्ष B.A, B.Sc., B.Com & BBA Second Language Hindi (CBCS)

2021-22

पाठीचे प्रणाली

Vth SEM

3 Credits

Unit – I

1. हिंदी भाषा के विविध रूप
2. प्रयोजन मूलक हिन्दी
3. राष्ट्र भाषा
4. राज भाषा
5. संपर्क भाषा

Unit – II

1. अनुवाद
2. अनुवाद शब्द की उत्पति अर्थ परिभाषा एवं स्वरूप
3. अनुवाद का महत्व
4. अनुवाद के प्रकार
5. अनुवाद के गुण
6. अनुवाद का अभ्यास

Unit- III

1. साहित्य की विविध विधाओं का परिचय
2. कविता
3. कहानी
4. उपन्यास
5. नाटक
6. एकांकी
7. निबन्ध
8. आत्मकथा
9. संस्मरण
10. रेखा चित्र

डिग्री तृतीय वर्ष B.A, B.Sc., B.Com & BBA Second Language Hindi (CBCS)
2021-22
पाठीचे प्रणाली

VIth – SEM

3 Credits

Unit – I

1. जनसंचार का माध्यम
2. जनसंचार का अर्थ, परिभाषा एवं स्वरूप
3. जनसंचार का माध्यम
4. जनसंचार के प्रकार
5. ऋवय, दृश्य, मुहण
6. जनसंचार का दायित्व
7. इलेक्ट्रॉनिक एवं अन्य आधुनिक माध्यम

Unit –II (पत्रकारिता)

1. पत्रकारिता का अर्थ, परिभाषा एवं स्वरूप
2. पत्रकारिता का इतिहास
3. पत्रकारिता का महत्व
4. पत्रकारिता के प्रकार
5. पत्रकार के गुण
6. हिन्दी के प्रमुख समाचार पत्र

Unit – III

1. हिन्दी साहित्य में विविध विमर्ष
2. स्त्री विमर्ष
3. दलित विमर्ष
4. अल्पसंख्यक विमर्ष
5. आदिवासी विमर्ष

Syllabus

Degree 1st Year second Language Sanskrit

1st Semester

(All the universities in Telangana)

1st UNIT

1. **मुदाभिषेक्तुं वरद त्वमर्हसि** Mudabhishektum varada tvamarhasi

   (श्रीमद्वाल्मीकिरामायणे अयोध्याकाण्डे द्वितीयः सर्गः)

2. **हिमालयो नाम नगाधिराजः** Himalayo nam nagadhirajah

   (कुमारसम्भवे प्रथमसर्गः)

2nd UNIT

3. **धर्मबद्धो दौवारिकः** Dhrmabaddho dauvarikah

   (शिवराजविजये प्रथमविरामे द्वितीयनिःश्वासः)

4. **कृतघ्ने नास्ति निष्कृतिः** Kritaghne nasty nishkrutihi

   (पञ्चतन्त्रे लब्धप्रणाशे वानरमकरकथा)

3rd UNIT

5. **एष धर्मः सनातनः** Esha dharmah sanatanah

   (२०सुभाषितानि)

6. **शब्दाः** (शब्दरूपाणि) Shabdah

   (निर्धारितशब्दाः)

4th UNIT

7. **सन्धयः** Sandhayah

   (निर्धारितसन्धयः)

8. **संस्कृतसम्भाषणाभ्यासः** (1) Sanskritasambhashanabhyasah

   (निर्धारितसंवादाः)

9. **संस्कृतसम्भाषणाभ्यासः** (2) Sanskritasambhashanabhyasah

   (निर्धारितसंवादाः)

Syllabus

Degree 1st Year second Language Sanskrit

2nd Semester

(All the universities in Telangana)

1st UNIT

1. **सक्तुप्रस्थस्य महत्त्वम् – सक्तुप्रस्थो महत्तमः** Saktuprasthasya mahattvam

   (महाभारते अश्वमेधपर्वणि ९०तमाध्यायः)

2. **बुद्धस्य वैराग्योदयः** Buddhasya vairagyodayah

   (बुद्धचरिते तृतीयसर्गः)

2nd UNIT

3. **वैज्ञानिक (बृहत्) संहिता** Vaijyanika (brihat) Sanhita

4. **न गङ्गदत्तः पुनरेति कूपम्** Na gangadattah punareti kupam

   (पञ्चतन्त्रे लब्धप्रणाशे मण्डूकराजकथा)

3rd UNIT

5. **दैवासुरसम्पद्विभागयोगः** Daivasurasampadvibhagayogah

   (श्रीमद्भगवद्गीता)

6. **धातवः** (धातुरूपाणि) Dhatavah

   (निर्धारितधातवः)

4th UNIT

7. **समासाः** Samasah

   (निर्धारितसमासाः)

8. **संस्कृतसम्भाषणाभ्यासः** (1) Sanskritasambhashanabhyasah

   (निर्धारितसंवादाः)

9. **संस्कृतसम्भाषणाभ्यासः** (2) Sanskritasambhashanabhyasah

   (निर्धारितसंवादाः)

SCHEME OF QUESTION PAPER FOR SANSKRIT SECOND LANGUAGE, I SEMESTER

Part A: 4 to be answered from given 6 small answer type questions 4X5=20

Part B: 7,8,9,10 Long answer type questions with Internal choice 4X15=60

Exam: 80

Internal Assessment: 20

Total: 100

SCHEME OF QUESTION PAPER FOR SANSKRIT SECOND LANGUAGE, I SEMESTER

Time: Marks: 80

PART – A 4X5=20

Answer any four questions. All questions carry equal marks.

1. Translation/Anuvadah of one shloka. (One shloka should be given here from 21st shloka to 36th shloka of Mudabhishektum varada tvamarhasi)

2. Annotation/sandarbhavakya (only one). (One sandarbhavakya should be given here from Dharmabaddho dauvarikah)

3. Writing of a sholka/shlokapuranam. (The beginning and ending word of a shloka should be given here from first eight shlokas of Esha dharma sanatanah)

4. Annotation/sandarbhavakya (only one). (One sandarbhavakya should be given here from Mudabhishektum varada tvamarhasi)

5. Translation/anuvadah of one shloka. (One shloka should be given here from Kritaghne nasti nishkritih)

6. Disjoining the words as per the sandhi. (Five words should be given here from the Sandhis)

(5)

Part – B 4X15=60

Answer all questions. All questions carry equal marks.

7. Explain any two of the following with word to word meaning. (four shlokas should be given here from first 20 shlokas of Himalayo nama nagadhirajah)

8. Write an assay on any one of the following. (Two essay type questions one from each lesson of unit II are to be given here)

9. decline fully any two of the following. (Four declensions should be given here from the text book)

10. Join any five words and write the name of the sandhi. (Ten words are to be given here from Sandhis)

SCHEME OF QUESTION PAPER FOR SANSKRIT SECOND LANGUAGE, II SEMESTER

Part A: 4 to be answered from given 6 small answer type questions 4X5=20

Part B: 7, 8,9,10 Long answer type questions with Internal choice 4X15=60

Exam: 80

Internal Assessment: 20

Total: 100

SCHEME OF QUESTION PAPER FOR SANSKRIT SECOND LANGUAGE, II SEMESTER

Time: Marks: 80

PART – A 4X5=20

Answer any four questions. All questions carry equal marks.

1. Translation/Anuvadah of one shloka. (One shloka should be given here from 45st shloka to 54th shloka of Saktuprasthasya mahattvam)

2. Annotation/sandarbhavakya (only one). (One sandarbhavakya should be given here from Na gangadattah punareti kupam)

3. Writing of a sholka/shlokapuranam. (The beginning and ending word of a shloka should be given here from first eight shlokas of Daivasura sampadvibhagayogah)

4. Annotation/sandarbhavakya (only one). (One sandarbhavakya should be given here from Saktuprasthasya mahattvam)

5. Short essay on poet/kaviparichaya. (A question be given here from Vaijyanikasanhita)

6. Write the name of samasa. (Five words are given here from samasas)

Part – B 4X15=60

Answer all questions. All questions carry equal marks.

7. Explain any two of the following with word to word meaning. (Four shlokas should be given here from first 20 shlokas of Buddhasya vairagyodayah)

8. Write an assay on any one of the following. (Two essay type questions one from each lesson of unit II is to be given here)

9. Conjugate fully any three of the following. (Six dhatus should be given here mentioning the name of the root and lakara from text book)

10. Write the vigrahavakya of any five along with the name of samasa. (Ten words are to be given here from Samasas)

Syllabus

Degree 2nd Year Second Language Sanskrit

3rd Semester

(All the Universities in Telangana)

1st UNIT 1. प्रवर्ततां प्रकृतिहिताय पार्थिवः (महाकविकालिदासः)

2. नवरत्नानि (आचार्यरामुलुः)

2nd UNIT 1. शूद्रकवैशम्पायनयोः सम्भाषणम् (बाणमहाकविः)

2. रामदासः (सन्निधानं सूर्यनारायणशास्त्री)

3rd UNIT 1. हलन्तशब्दरूपाणि

2. संस्कृतसम्भाषणाभ्यासः

Syllabus

Degree 2nd Year Second Language Sanskrit

4th Semester

(All the Universities in Telangana)

1st UNIT 1. चित्रपटदर्शनम् (भवभूतिमहाकविः)

2. विवेकानन्दविजयम् (श्रीधरभास्करवर्णेकरः)

2nd UNIT 1. विश्रुतचरितम् (दण्डिमहाकविः)

2. ध्रुवोपख्यानम् (पि. वि. काणे)

3rd UNIT 1. कृदन्तरूपाणि

2. संस्कृतसम्भाषणाभ्यासः

Syllabus

Degree 3rd Year Second Language Sanskrit

5th Semester

(All the Universities in Telangana)

1st UNIT 1. मधुरोपदेशः (गंगादेवी)

2. अलंकाराः

2nd UNIT 1. शिष्यानुशासनम् (तैत्तिरीयोपनिषद्)

2. ब्रह्मशक्तिर्गरीयसी (केनोपनिषद्)

3rd UNIT 1. महाकविशास्त्रकारविभागः

(पाणिनिः, कौटिल्यः, भरतमुनिः, भारविः, माघः, श्रीहर्षः)

2. संस्कृतसम्भाषणाभ्यासः

Syllabus

Degree 3rd Year Second Language Sanskrit

6th Semester

(All the Universities in Telangana)

1st UNIT 1. अवन्तु भारतप्रजाःस्वतन्त्रभारतप्रभाम्

(श्रीभाष्यंविजयसारथिः)

2. अलंकाराः

2nd UNIT 1. दकारकथा (बृहदारण्यकोपनिषद्)

2. नचिकेतोपाख्यानम् (कठोपनिषद्)

3rd UNIT 1. महाकविशास्त्रकारविभागः

(आर्यभटः, भास्कराचार्यः, कणादः, शंकराचार्यः, भासः, हर्षवर्धनः)

2. संस्कृतसम्भाषणाभ्यासः

SCHEME OF QUESTION PAPER FOR SANSKRIT SECOND LANGUAGE, III SEMESTER

Part A: 4 to be answered from given 6 small answer type questions. 4X5=20

Part B: 7,8,9,10 Long answer type questions with internal choice. 4X15=60

Exam: 80

Internal Assessment: 20

Total: 100

SCHEME OF QUESTION PAPER FOR SANSKRIT SECOND LANGUAGE, III SEMESTER

Time: Marks: 80

Part – A 4X5=20

Answer any four questions. All questions carry equal marks.

1. Translation/अनुवादः of one श्लोकः. (One श्लोकः should be given here from नवरत्नानि)

2. Annotation/सन्दर्भवाक्यम् (only one). (One सन्दर्भवाक्यम् should be given here from शूद्रकवैशम्पायनयोः सम्भाषणम्)

3. Writing of लिंगविभक्तिवचनानि of five words. (Five words should be given from हलन्तशब्दरूपाणि)

4. Annotation/ सन्दर्भवाक्यम् (only one). (One sandarbhavakam should be given here from प्रवर्ततां प्रकृतिहिताय पार्थिवः)

5. A short assay question. (A short assay question should be given here from रामदासः)

6. Writing of लिंगविभक्तिवचनानि of five words. (Five words should be given from हलन्तशब्दरूपाणि)

Part – B

7. Explain any two of the following श्लोकाः with word to word meaning. (Four श्लोकाः should be given here from प्रवर्ततां प्रकृतिहिताय पार्थिवः.)

8. Write an assay on any one of the following. (Two essay type questions one from each lesson of unit I are to be given here.)

9. Write an assay on any one of the following. (Two essay type questions one from each lesson of unit II are to be given here.)

10. Decline fully any two of the following. (Four declensions should be given here from the हलन्तशब्दरूपाणि.)

SCHEME OF QUESTION PAPER FOR SANSKRIT SECOND LANGUAGE, IV SEMESTER

Part A: 4 to be answered from given 6 small answer type questions. 4X5=20

Part B: 7,8,9,10 Long answer type questions with internal choice. 4X15=60

Exam: 80

Internal Assessment: 20

Total: 100

SCHEME OF QUESTION PAPER FOR SANSKRIT SECOND LANGUAGE, IV SEMESTER

Time: Marks: 80

Part – A

4X5=20

Answer any four questions. All questions carry equal marks.

1. A Short essay question. (A question be given here from विवेकानन्दविजयम्)

2. Annotation/सन्दर्भवाक्यम् (only one). (One सन्दर्भवाक्यम् should be given here from विश्रुतचरितम्)

3. Writing five कृदन्त-words. (Five धातवः & प्रत्ययाः should be given from कृदन्तरूपाणि)

4. Annotation/ सन्दर्भवाक्यम् (only one). (One सन्दर्भवाक्यम् should be given here from चित्रपटदर्शनम्.)

5. A short assay question. (A short assay question should be given here from ध्रुवोपाख्यानम्)

6. Writing five कृदन्त- words. (Five धातवः & प्रत्ययाः should be given from कृदन्तरूपाणि)

Part – B

7. Explain any two of the following श्लोकाः with word to word meaning. (Four श्लोकाः should be given here from चित्रपटदर्शनम्.)

8. Write an assay on any one of the following. (Two essay type questions one from each lesson of unit I are to be given here.)

9. Write an assay on any one of the following. (Two essay type questions one from each lesson of unit II are to be given here.)

10. Writing धातवः & प्रत्ययाः of ten कृदन्त-words. (Fifteen कृदन्त-words should be given from कृदन्तरूपाणि)

SCHEME OF QUESTION PAPER FOR SANSKRIT SECOND LANGUAGE, V SEMESTER

Part A: 4 to be answered from given 6 small answer type questions. 4X5=20

Part B: 7,8,9,10 Long answer type questions with internal choice. 4X15=60

Exam: 80

Internal Assessment: 20

Total: 100

SCHEME OF QUESTION PAPER FOR SANSKRIT SECOND LANGUAGE, V SEMESTER

Time: Marks: 80

Part – A 4X5=20

Answer any four questions. All questions carry equal marks.

1. A Short essay question. (A question be given here from मधुरोपदेशः)

2. Annotation/ सन्दर्भवाक्यम् (only one). (One सन्दर्भवाक्यम् should be given here from शिष्यानुशासनम्)

3. A Short essay question. (A question should be given from महाकविशास्त्रकारविभागः.)

4. Writing of लक्षणम् & उदाहरणम् of अलंकारः (only one अलंकारः). (An अलंकारः should be given from अलंकाराः)

5. Annotation/ सन्दर्भवाक्यम् (only one). (One सन्दर्भवाक्यम् should be given here from ब्रह्मशक्तिर्गरीयसी)

6. A Short essay question. (A question should be given from महाकविशास्त्रकारविभागः.)

Part – B

7. Explain any two of the following श्लोकाः with word to word meaning. (Four श्लोकाः should be given here from मधुरोपदेशः.)

8. Writing of लक्ष्यलक्षणसमन्वयः of two अलंकाराः. (Four अलंकाराः should be given from अलंकाराः.)

9. Write an assay on any one of the following. (Two essay type questions one from each lesson of unit II are to be given here.)

10. Two essays on poets. (Four questions should be given from महाकविशास्त्रकारविभागः.)

SCHEME OF QUESTION PAPER FOR SANSKRIT SECOND LANGUAGE, VI SEMESTER

Part A: 4 to be answered from given 6 small answer type questions. 4X5=20
Part B: 7,8,9,10 Long answer type questions with internal choice. 4X15=60

Exam: 80
Internal Assessment: 20
Total: 100

SCHEME OF QUESTION PAPER FOR SANSKRIT SECOND LANGUAGE, VI SEMESTER

Time: Marks: 80

Part – A 4X5=20

Answer any four questions. All questions carry equal marks.

1. A Short essay question. (A question be given here from अवन्तु भारतप्रजाः स्वतन्त्रभारतप्रभाम्)

2. Annotation/ सन्दर्भवाक्यम् (only one). (One सन्दर्भवाक्यम् should be given here from दकारकथा)

3. A Short essay question. (A question should be given from महाकविशास्त्रकारविभागः.)

4. Writing of लक्षणम् & उदाहरणम् of अलंकारः (only one अलंकारः). (An अलंकार should be given from अलंकाराः)

5. Annotation/ सन्दर्भवाक्यम् (only one). (One सन्दर्भवाक्यम् should be given here from नचिकेतोपाख्यानम्)

6. A Short essay question. (A question should be given from महाकविशास्त्रकारविभागः.)

Part – B

7. Explain any two of the following shokas with word to word meaning. (Four shlokas should be given here from अवन्तु भारतप्रजाः स्वतन्त्रभारतप्रभाम्)

8. Writing of लक्ष्यलक्षणसमन्वयः of two अलंकाराः. (Four अलंकाराः should be given from अलंकाराः.)

9. Write an assay on any one of the following. (Two essay type questions one from each lesson of unit II are to be given here.)

10. Two essays on poets. (Four questions should be given from महाकविशास्त्रकारविभागः.)

Telugu

(Second Language)

B.A./ B.Com./ B.Sc. I - IV Semester Syllabus (CBCS)

(w.e.f. 2016 - 2017)

Faculty of Arts

PALAMURU UNIVERSITY

Mahabubnagar - 509 001, Telangana

2016

PALAMURU UNIVERSITY, MAHABUBNAGAR

Syllabus for B.A./ B.Sc./B.Com under CBCS pattern

TELUGU (SECOND LANGUAGE)

1st Semester

ప్రాచీన పద్యభాగం.

1.శకుంతలోపాఖ్యానము

2.గొడగూచి

3.త్యాగనిరతి

ఆధునిక కవిత్వం

1.కాసులు

2.రాజు – కవి

3.గంగిరెద్దు.

4.జయభేరి

1. ఉపవాచకం

రుద్రమదేవి (నవల)

భాషా విభాగం

భాషా భాగాలు, సాధుశబ్దాల గుర్తింపు

పర్యాయపదాలు, నానార్థాలు.

పాఠ్యగ్రంథం: తెలుగుఅకాడమీ ప్రచురించిన సాహితీమంజీర. దీనిలోని రెండు పాఠాలు- (సంవరణుని తపస్సు, శ్రీరంగక్షేత్ర మహిమ) ఉస్మానియావిశ్వవిద్యాలయ పరిధిలోని డిగ్రీ ద్వితీయభాష(తెలుగు), విద్యార్థులకు తొలగించి, వాటిని మాడర్న్ లాంగ్వేజ్ (తెలుగు)విద్యార్థులకు నిర్దేశించనైంది.

పరీక్షా పద్ధతి

ఎ. ఇంటర్నల్ ఎసెస్ మెంట్	**20** మార్కులు
బి. సెమిస్టర్ పరీక్ష	**80**మార్కులు
1.పద్యం, ప్రతిపదార్థ తాత్పర్యాలు – సమగ్ర వ్యాఖ్య	12
2.సందర్భ సహిత వ్యాఖ్యలు (ప్రాచీనపద్యభాగం నుండి 2, ఆధునికకవిత్వభాగం నుండి 2 రాయాలి,ప్రతిభాగం నుండి 4 ఇస్తారు.)	12 (4X3)
3.వ్యాసరూప ప్రశ్న (ప్రాచీన పద్యభాగం- ఇంటర్నల్ చాయిస్.)	12
4. వ్యాసరూప ప్రశ్న (ఆధునిక కవిత్వం- ఇంటర్నల్ చాయిస్)	12
5.వ్యాసరూప ప్రశ్నలు (ఉపవాచకంనుండి 4 ప్రశ్నలిస్తే 2రాయాలి)	20 (10+10)
6.భాషా విభాగం (భాషా భాగాల గుర్తింపు, సాధు శబ్దాల గుర్తింపునకు సంబంధించి పర్యాయపదాలు, నానార్థాలకు సంబంధించి ప్రశ్నలిస్తారు)	12(6+6)

.....

PALAMURU UNIVERSITY, MAHABUBNAGAR

Syllabus for B.A./ B.Sc./B.Com under CBCS pattern

TELUGU (SECOND LANGUAGE)

2nd Semester

ప్రాచీన పద్యభాగం.

1.గజేంద్ర మోక్షము

2.హనుమత్సందేశము

3. సుభాషితములు

ఆధునిక కవిత్వం

1.అంతర్నాదము

2..ప్రపంచ పదులు

3..రోడ్డురోలర్

4. అల్విదా

వచన విభాగం

1.యుగాంతం

2.ఎంకన్న

3. మామిడి పండు

4.మా ఊరు పోయింది.

5. ఇదీ ఒక కళే – పేరులు దారులు గుర్తుంచుకోవడం.

భాషా విభాగం

సంధులు, సమాసాలు

పరీక్షా పద్ధతి

ఎ. ఇంటర్నల్ ఎసెస్ మెంట్	**20** మార్కులు
బి. సెమిస్టర్ పరీక్ష	**80** మార్కులు
1.పద్యం, ప్రతిపదార్థ తాత్పర్యాలు – సమగ్ర వ్యాఖ్య	12
2.సందర్భ సహిత వ్యాఖ్యలు (ప్రాచీనపద్యభాగం నుండి 2, ఆధునికకవిత్వభాగం నుండి 2 రాయాలి. ప్రతిభాగం నుండి 4 ఇస్తారు.)	12 (4X3)
3.వ్యాసరూప ప్రశ్న (ప్రాచీన పద్యభాగం- ఇంటర్నల్ చాయిస్.)	12
4. వ్యాసరూప ప్రశ్న (ఆధునిక కవిత్వం- ఇంటర్నల్ చాయిస్)	12
5.వ్యాసరూప ప్రశ్నలు (వచనవిభాగంనుండి 4 ప్రశ్నలిస్తే 2 రాయాలి)	20 (2x10)
6.భాషా విభాగం (సంధులగుర్తింపు, సూత్రవివరణకు సంబంధించి 3 సమాసాలగుర్తింపు విగ్రహవాక్యాలకు సంబంధించి 3 ప్రశ్నలిస్తారు)	12 (6+6)

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Palamuru University, Mahabubnagar

CBCS SEMESTER - 3 (2017-18) TELUGU SYLLABUS

B.A., /B.Com.,/ B.Sc., / B.B.A., (ద్వితీయ భాష) తెలుగు – మూడవ సెమిస్టర్

సిలబస్ (మార్గదర్శి)

ప్రాచీన పద్యభాగం

1. ధర్మరాజు వాక్ చాతుర్యం .... తిక్కన
2. విభీషణ శరణాగతి .... గోన బుద్ధారెడ్డి
3. గుణనిధి కథ .... శ్రీనాథుడు

ఆధునిక పద్యభాగం

1. రైతు ప్రశస్తి ... వానమామలై జగన్నాథాచార్యులు
2. గురు దక్షిణ ... అంబటి లక్ష్మీనరసింహ రాజు
3. గుడిసెలు కాలిపోతున్నై ... బోయి భీమన్న

వచన విభాగం (నాటకం)

చలి చీమలు నాటకం ... పి.వి. రమణ

అలంకారాలు

శబ్దాలంకారాలు : వృత్త్యనుప్రాస, ఛేకానుప్రాస, లాటానుప్రాస, అంత్యానుప్రాస,
యమకం, ముక్తపదగ్రస్తాలంకారాలు.

అర్థాలంకారాలు : ఉపమ, ఉత్ప్రేక్ష, రూపక, స్వభావోక్తి, ఉల్లేఖ, అర్థాంతరన్యాస, శ్లేష, దృష్టాంతాలంకారాలు.

Palamuru University, Mahabubnagar

CBCS SEMESTER - 4 (2017-18) TELUGU SYLLABUS

B.A., /B.Com.,/ B.Sc., / B.B.A., (ద్వితీయ భాష) తెలుగు – నాల్గవ సెమిస్టర్

సిలబస్ (మార్గదర్శి)

ప్రాచీన పద్యభాగం

1. నారద గాన మాత్సర్యం .... పింగళి సూరన
2. వాగ్దాన భంగం .... ఆసూరి మరింగంటి వేంకట నరసింహాచార్యులు
3. నారసింహ శతకం ... ధర్మపురి శేషప్ప

ఆధునిక పద్యభాగం

1. నరుడా నేను నరుడా నేను .... కాళోజీ
2. ఆర్తగీతం ... తిలక్
3. దేవరకొండ దుర్గం ... డా॥ ముకురాల రామారెడ్డి

వచన విభాగం

1. అర్ధరాత్రి అరుణోదయం ... దాశరథి
2. సి.పి.బ్రౌన్ సాహిత్య సేవ ... జానుమద్ది హనుమచ్ఛాస్త్రి
3. మన గ్రామనామాలు ... డా॥ కపిలవాయి లింగమూర్తి
4. నివురు తొలగిన నిప్పు ... పోల్కంపల్లి శాంతాదేవి
5. కొండ మల్లెలు ... ఇల్లిందల సరస్వతీ దేవి

ఛందస్సు

పాఠ్య గ్రంథము లోనివి.

సామాజిక వ్యాసం.

Palamuru University, Mahabubnagar

CBCS SEMESTER - 4 (2017-18) TELUGU QUESTION PAPER

B.A., /B.Com.,/ B.Sc., / B.B.A., (ద్వితీయ భాష) తెలుగు – నాల్గవ సెమిస్టర్

అ – భాగం

ఏవేని ఐదు ప్రశ్నలకు సమాధానం రాయాలి. (5 × 4 = 20)

1. ఉత్తముల మహిమ నీరుకొలది తామర సుమ్మీ ..... సందర్భ సహిత వ్యాఖ్య రాయండి.
2. తెగు నా పాండవుల తోడ నిక బాంధవమున్ .... సందర్భ సహిత వ్యాఖ్య రాయండి.
3. చావు రాక మున్నే పిరికి; చావు చావలేను నేను .... సందర్భ సహిత వ్యాఖ్య రాయండి.
4. విధి ఇన్ని కత్తులను దూసినదేమీ? .... సందర్భ సహిత వ్యాఖ్య రాయండి.
5. ఆటవెలది పద్యాన్ని ఉదాహరణతో వివరించండి.
6. ధర్మపురి శేషప్ప కవి గురించి వివరించండి.
7. కొండమల్లెలు కథానిక నుండి పోచాలు పాత్రను పరిచయం చేయండి.
8. స్వచ్ఛభారత్‌పై మీ అభిప్రాయాన్ని ఒక కవిత ద్వారా తెలపండి.

ఆ – భాగం

ఈ క్రింది ప్రశ్నలకు సమాధానాలు రాయండి. (5 × 12 = 60)

9. ఈ క్రింది పద్యంలో ఒకదానికి సమగ్ర వ్యాఖ్యను రాయండి.

   అ) వారిద పంక్తిలో వెడలివచ్చు మెఱుంగుల పిండి నా, సఖీ
   వారముతో రమారమణి వచ్చెను; హెగ్గెడి కత్తెలెందఱే
   గోరి భజింప, నా కొలువు కూటము ముందఱి వంక నొప్పు సం
   గారపు దోటనుండి యధికంబగు వైభవ మింప మీఱగన్.

   ఆ) కనుగవ కెంపు బార మది కళ్వళ మంతకు బెంపుదేర, హె
   చ్చిన తమి మీర జెక్కుగవ చెమ్మట జార ప్రలంబ వైరి పై
   తన కసిదీర పట్టువిడి తాలిమి దూర సరోష భీషణా
   నన మలరార, నా కమలనాభుని చెంతకు జేరి యిట్లనెన్.

10. దేవరకొండ దుర్గ వైభవాన్ని వివరించండి.

    లేదా

    తిలక్ ఆర్తగీతం ద్వారా వెలిబుచ్చిన అభిప్రాయాన్ని తెలపండి.

11. సి.పి.బ్రౌన్ సాహిత్య సేవను వివరించండి.

    లేదా

    1947 ఆగస్టు 15 కాలం నాటి హైదరాబాద్ పరిస్థితులను తెలపండి.

12. గ్రామానామాల అధ్యయనం వల్ల కలిగే ప్రయోజనాలను తెలపండి.

    లేదా

    నివురు తొలగిన నిప్పు కథానికలో రమణ పాత్ర గురించి రచయిత్రి భావాలు వివరించండి.

13. చంపకమాల, మత్తేభము, ద్విపద ఛందస్సుల లక్షణాలను ఉదాహరణతో వివరించండి.

    లేదా

ఈ క్రింది పద్య పాదాలలోని ఛందస్సును గుర్తించి లక్షణాలను రాయండి.

అ) ఏనును దుంబురుం డెచటి కేగె? గృహంబున నున్నవాడె? యం

ఆ) వైకుంఠంబున నొక్కనాడతులితైశ్వర్యుండు విష్ణుండు నా

ఇ) భరత ఖండంబు చక్కని పాడియావు.

Palamuru University, Mahabubnagar

CBCS SEMESTER - 3 (2017-18) TELUGU QUESTION PAPER

B.A., /B.Com.,/ B.Sc., / B.B.A., (ద్వితీయ భాష) తెలుగు – మూడవ సెమిస్టర్

అ – భాగం

ఏవేని ఐదు ప్రశ్నలకు సమాధానం రాయాలి. (5 × 4 = 20)

1. వలవ దధిక దీర్ఘ వైర వృత్తి ..... సందర్భ సహిత వ్యాఖ్య రాయండి.
2. మరియాదలిట్టివి మా కులంబు నకు .... సందర్భ సహిత వ్యాఖ్య రాయండి.
3. లేచి ఎదురు తిరిగెనేని ఎదురు లేదు .... సందర్భ సహిత వ్యాఖ్య రాయండి.
4. ఇది మనధర్మంలోని రహస్యం .... సందర్భ సహిత వ్యాఖ్య రాయండి.
5. అంత్యానుప్రాసాలంకారాన్ని ఉదాహరణతో వివరించండి.
6. తాతాచారి పాత్ర చిత్రణ
7. విభీషణుని గూర్చి రాయండి
8. ఈ క్రింది వాక్యాలను తెలుగులోనికి అనువదించండి.

To Terry Fox, the one-legged runner whose life was the antithesis of self-aggrand-izement, the thought he would be the first Canadian depicted on a circulating coin would be considered loony, Fox asked every Canadian for a dollar toward cancer research whern he dipped his prosthesis into the frigid of St.John's harbour on April 12, 1980 and began his cross Canada marathon.

ఆ – భాగం

ఈ క్రింది ప్రశ్నలకు సమాధానాలు రాయండి. (5 × 12 = 60)

9. ఈ క్రింది పద్యంలో ఒకదానికి సమగ్ర వ్యాఖ్యను రాయండి.

అ) కావున శాంతిబొందుటయు కర్జము, దా నది యట్టులుండె; శ్రీ
గావలె నంచు, బొంతము గామియు గోరెద; మెల్ల సొమ్ములుం
బోవుటయుం గులక్షయము పుట్టుటయున్ వెలిగాగ నొందుమై
నే విధి నైన జక్కబడు టెంతయు నొప్ప జుమీ జనార్దనా!

ఆ) విడువక నీవు పట్టణము వీధుల వీధుల వెట్టివాడ వై
చెడుగుల గూడి ధైర్యములు సేయ మహీ రమణుండెఱింగెనే
విడుచును సోమయాజి మును వృత్తులు చేకొను నెల్లభంగులన్
జెడుదుము నీకతంబు నను జీరయు గూడును లేక పుత్రకా

10. అర్జునుడు గురుదక్షిణ చెల్లించిన విధము వివరించండి.

లేదా

రైతు ప్రశస్తి పాఠ్యాంశ సారాంశాన్ని వివరించండి.

11. చలిచీమలు నాటక నామౌచిత్యాన్ని వివరించండి.

లేదా

చలిచీమలు నాటకంలో విశాలాక్షి పాత్రను విశ్లేషించండి.

12. చలిచీమలు నాటక కాలం నాటి సాంఘిక పరిస్థితులను తెలపండి.

లేదా

చలిచీమలు నాటకంలో సురేశ్ పాత్ర గుణగణాలను వివరించండి.

13. స్వభావోక్తి, రూపక, ఉత్ప్రేక్ష అలంకారాల లక్ష్య లక్షణ సమన్వయం చేయండి.

లేదా

ఈ క్రింది పద్య పాదాలలోని అలంకారాలను, లక్షణాలను వివరించండి.

అ) పగయు గలిగె నేని బామున్న యింటిలో నున్న యట్ల గాక యూరడిల్లి

ఆ) పరమాత్ముడవు నీవ పరమంబు నీవ పరమ విద్యయు నీవ పరికింప నెందు

ఇ) వదల లేదు మాధవ మాధవ స్మృతులను

తీర్మానాలు

తేది 14 జూన్ 2019 న తెలంగాణ రాష్ట్రంలోని అన్ని విశ్వవిద్యాలయాల పరిధిలోని డిగ్రీ కళాశాలలలో తెలుగు ద్వితీయ భాషగా చదివే విద్యార్థుల కోసం కామన్ కోర్ సిలబస్ ను రూపొందించడానికి తెలంగాణ రాష్ట్ర ఉన్నత విద్యా మండలి, మాసబ్ ట్యాంక్, హైదరాబాద్ నందు వివిధ విశ్వవిద్యాలయాలలోని తెలుగు శాఖ విభాగాధిపతులు మరియు పాఠ్య ప్రణాళికా సంఘ చైర్ పర్సన్స్ సమావేశమైనారు. తెలంగాణ రాష్ట్ర ఉన్నత విద్యా మండలి ఆదేశాల ప్రకారం C.B.C.S పాఠ్య ప్రణాళిక నమూనా ఆధారంగా డిగ్రీ కోర్సులోని తెలుగు ద్వితీయ భాషకు మొత్తం 6 సెమిస్టర్లకు గాను 20 క్రెడిట్లను పొందుపరుస్తూ పాఠ్య ప్రణాళికలను రూపొందించడానికి తీర్మానించనైనది. పై తీర్మానం ప్రకారం ఈ సమావేశంలో ఒకటవ సెమిస్టర్ కు 4 క్రెడిట్లను మరియు రెండవ సెమిస్టర్ కు 4 క్రెడిట్లను పొందుపరుస్తూ ఒకటవ మరియు రెండవ సెమిస్టర్ల పాఠ్య ప్రణాళికలను రూపొందించి ఈ క్రింది విధంగా ఆమోదించనైనది.

C.B.C.S Pattern Syllabus from 2019-20 onwards
B.A., B.Sc., B.Com & B.B.A 1st Semester
IInd Language- Telugu

Unit –I ప్రాచీన కవిత్వం

1) శకుంతలోపాఖ్యానం– నన్నయ

2) గొడగూచి కథ – పాల్కురికి సోమనాథుడు

3) సంవరణుడి తపస్సు– అద్దంకి గంగాధరుడు

Unit–II ఆధునిక కవిత్వం

1) కాసులు – గురజాడ అప్పారావు

2) రాజు – కవి – డా. గుఱ్ఱం జాషువా

3) గంగిరెద్దు – డా. పల్లా దుర్గయ్య

4) జయభేరి – శ్రీ శ్రీ

Unit–III వచన విభాగం

రుద్రమదేవి (నవల) – ఒద్దిరాజు సోదరులు

Unit –IV భాషా భాగాలు- వ్యాకరణం

పర్యాయ పదాలు, నానార్థాలు, సంధులు, సమాసాలు, తెలుగు వాక్యం

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C.B.C.S Pattern Syllabus for 2019-20 onwards
B.A., B.Sc., B.Com & B.B.A 2nd Semester
IInd Language- Telugu

Unit–I ప్రాచీన కవిత్వం

1) గజేంద్ర మోక్షం – పోతన

2) హనుమత్ సందేశం– మొల్ల

3) సుభాషితాలు – ఏనుగు లక్ష్మణ కవి

Unit–II ఆధునిక కవిత్వం

1) స్నేహలత లేఖ – రాయప్రోలు సుబ్బారావు

2) అంతర్నాదం – దాశరథి కృష్ణమాచార్యులు

3) ప్రపంచపదులు – డా.సి. నారాయణ రెడ్డి

4) అల్విదా– కౌముది

Unit –III వచన విభాగం

1) యుగాంతం– నెల్లూరి కేశవ స్వామి

2) ఎంకన్న – ఆచార్య పాకాల యశోదారెడ్డి

3) మామిడిపండు – సురవరం ప్రతాప రెడ్డి

4) మా ఊరుపోయింది – దేవులపల్లి వేంకట కృష్ణశాస్త్రి

Unit –IV ఛందస్సు

ఉత్పలమాల, చంపకమాల, శార్దూలం, మత్తేభం, ఆటవెలది, తేటగీతి, ద్విపద, సీసం, కందం, ఉత్సాహం, తరళం, స్రగ్ధర, మహాస్రగ్ధర, ముత్యాలసరం

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2) ఈ ఒకటవ మరియు రెండవ సెమిస్టర్ల పాఠ్యాంశాలను **సాహితీ మంజీర** పేరుతో తెలుగు అకాడమీ ముద్రించాలని తీర్మానించడమైనది. ఈ పాఠ్య గ్రంథానికి సంపాదక మండలిగా ఈ సమావేశంలో పాల్గొన్న వివిధ విశ్వవిద్యాలయాలలోని తెలుగు శాఖ విభాగాధిపతులు మరియు పాఠ్య ప్రణాళికా సంఘ చైర్ పర్సన్స్ వ్యవహరిస్తారని సమావేశం తీర్మానించింది.

3) మూడు, నాలుగు, ఐదు, ఆరు సెమిస్టర్ల పాఠ్య ప్రణాళికను రూపొందించడానికి 2019 జూలై ఒకటవ వారంలో సమావేశం కావాలని తీర్మానించడమైనది.

ఈ సమావేశానికి హాజరైన వివిధ విశ్వవిద్యాలయాలలోని తెలుగు శాఖ విభాగాధిపతులు మరియు పాఠ్య ప్రణాళికా సంఘ చైర్ పర్సన్స్

క్రమ సంఖ్య	పేరు	విశ్వవిద్యాలయం.	సంతకం
1)			14/6/19
2)		BOS	14/6/19
3)			
4)			
5)			14/6/19
6)		HEAD	
7)			
8)			
9)			
10)		HOD	14/06/19
11)			14.6.19
12)	Dr K. Lavanya	Bos, TSD, Telangana University, Nzb	14/6/19

Question paper model for all semesters

Part A : 6 లఘు ప్రశ్నలకు 4 చేయాలి. = 4X5 = 20

Part B : 7. 8. 9. 10 వ్యాసరూపప్రశ్నలు Internal Choice 4 x 15 = 60

Exam 80+

Internal Assessment 20 = 100 Marks

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B.A., B.SC., B.COM & B.B.A (C.B.C.S) 1ST SEMESTER

TELUGU (11nd LANGUAGE)

SCHEME OF THE QUESTIONPAPER

TIME :3 HRS **MARKS :80**

అ భాగం (సంగ్రహసమాధానాలు)

ఏవేని **నాలుగు** ప్రశ్నలకు క్లుప్తంగా సమాధానాలు రాయండి. **4x5=20**

1. ప్రాచీనపద్యభాగంనుండి ఒకసందర్భం
2. ఆధునికపద్యభాగంనుండి ఒకసందర్భం
3. నానార్థాలు (5) రాయాలి. (చాయస్ లేదు)
4. పర్యాయపదాలు (5) రాయాలి. (చాయస్ లేదు)
5. నవలనుండి చిన్నప్రశ్న ఒకటి రాయాలి .
6. కవిపరిచయం (ప్రాచీన, ఆధునికపద్యభాగంనుండి)

ఆ భాగం (వ్యాసరూపసమాధానాలు)

అన్ని ప్రశ్నలకు వివరంగా సమాధానాలు రాయండి. **15x4=60**

7. ప్రాచీన పద్యభాగం నుండి రెండు పద్యాలు ఉంటాయి (ఒకదానికి సందర్భం, కవిపరిచయం, ప్రతిపదార్థతాత్పర్యాలు, వ్యాకరణాంశాలు వివరించాలి)

8. ప్రాచీన / ఆధునిక పద్యభాగం నుండి రెండుప్రశ్నలు ఉంటాయి. (ఒకదానికి సమాధానం రాయాలి.)

9. నవల నుండి రెండుప్రశ్నలు ఉంటాయి. (ఒకదానికి సమాధానం రాయాలి.)

10. తెలుగు వాక్యనిర్మాణరీతులను సోదాహరణంగా తెల్పండి. లేదా
మూడుసంధులను / మూడు సమాసాలను లక్ష్యలక్షణ సమన్వితంగా వివరించాలి

HOD, TSD, TU

HOD Palamuru University

HOD, NIZAM college, OU

Chairman, BOS O.U

P.U.

14/6/19

HOD Telugu G.D.C (W) Nalgonda M.G.U.

HOD. Karimnagar

(A. Jyothi) BOS. K.U.

HOD of Telugu

TELUGU (IInd LANGUAGE)

SCHEME OF THE QUESTIONPAPER

TIME :3 HRS　　　　　　　　　　　　MARKS :80

అ భాగం (సంగ్రహసమాధానాలు)

ఏవేని **నాలుగు** ప్రశ్నలకు క్లుప్తంగా సమాధానాలు రాయండి.　　**4x5=20**

1. ప్రాచీనపద్యభాగంనుండి ఒకసందర్భం
2. ఆధునికపద్యభాగంనుండి ఒకసందర్భం
3. పాఠ్యభాగంలోని కవి/రచయిత పరిచయం
4. ~~ప్రాచీన~~/ఆధునిక ~~పాఠ్యాంశాలనుండి విషయపరమైనప్రశ్న~~ కవితా ఖండికను ఇచ్చి విశ్లేషించమని అడగాలి.
5. వచనవిభాగానికి సంబంధించి　ఒక ప్రశ్న
6. పద్యపాదాన్ని ఇచ్చి గణవిభజన చేసి యతిస్థానాన్ని ఛందస్సును గుర్తించుట

ఆ భాగం (వ్యాసరూపసమాధానాలు)

అన్ని ప్రశ్నలకు వివరంగా సమాధానాలు రాయండి.　　**15x4=60**

7. ప్రాచీన పద్యభాగం నుండి రెండు పద్యాలు ఉంటాయి (ఒకదానికి సందర్భం, కవిపరిచయం, ప్రతిపదార్థతాత్పర్యాలు, వ్యాకరణాంశాలు వివరించాలి)
8. ప్రాచీన/ ఆధునిక పద్యభాగాల నుండి రెండు ప్రశ్నలుంటాయి. (ఒకదానికి సమాధానం రాయాలి.)
9. వచనవిభాగం నుండి రెండుప్రశ్నలు ఉంటాయి. (ఒకదానికి సమాధానం రాయాలి.)
10. మూడు ఛందస్సులను లక్ష్యలక్షణ సమన్వితంగా వివరించాలి **లేదా**

    మూడు పద్యపాదాలను ఇచ్చి గణవిభజన చేసి యతిస్థానాన్ని ఛందస్సును గుర్తించమని అడగాలి.

Chairman B.O.S. O.U Hyd

HOD, TSD, TU

14/6/19

HOD Telugu G.D.C(W) Nalgonda M.G.U.

HOD, BO Kakatiya

P.U.

HOD P.U.

V. HOD of Telugu KUC.

(A. Jyothi) BOS, K.U.

B.A., B.Sc., B.Com., & B.B.A., (CBCS)
Syllabus - 2020
Telugu (Second Language)
3rd Semester

Unit - I. ప్రాచీన పద్యభాగం

1. ధర్మజుని వాక్చాతుర్యం ... తిక్కన
2. విభీషణ శరణాగతి ... గోన బుద్దారెడ్డి
3. గుణనిధి కథ ... శ్రీనాథుడు

Unit - II. ఆధునిక పద్యభాగం

1. రైతు ప్రశస్తి ... వానమామలై జగన్నాథాచార్యులు
2. గురుదక్షిణ ... అంబటి లక్ష్మీనరసింహరాజు
3. గుడిసెలు కాలిపోతున్నై ... డా॥ బోయి భీమన్న

Unit - III. అలంకారాలు

శబ్దాలంకారాలు : వృత్త్యనుప్రాస, ఛేకానుప్రాస, లాటానుప్రాస, అంత్యానుప్రాస, యమకం, ముక్తపదగ్రస్తాలంకారాలు.

అర్థాలంకారాలు : ఉపమ, ఉత్ప్రేక్ష, రూపక, స్వభావోక్తి, ఉల్లేఖ, అర్థాంతరన్యాస, శ్లేష, దృష్టాంతాలంకారాలు.

పాఠ్య గ్రంథం : తెలుగు అకాడమీ వారి 'సాహితీ కిన్నెర' తెలుగు వాచకం

B.A., B.Sc., B.Com., & B.B.A., (CBCS)
Telugu (Second Language) - 2020
3rd Semester - Scheme of Question Paper

Time : 3 Hrs. **Marks : 80**

అ - భాగం (సంగ్రహ సమాధానాలు)

ఏవేని నాలుగు ప్రశ్నలకు సమాధానాలు రాయండి. **4×5 = 20**

1,2. ప్రాచీన పద్యభాగం నుండి ఒక సందర్భం

3,4. ఆధునిక పద్యభాగం నుండి ఒక సందర్భం

5. ప్రాచీన పాఠ్యాంశాల నుండి వస్తు విశ్లేషణ / కవి పరిచయం

6. ఆధునిక పాఠ్యాంశాల నుండి కవుల / రచయితల పరిచయం

ఆ - భాగం (వ్యాసరూప సమాధానాలు)

అన్ని ప్రశ్నలకు సమాధానాలు రాయండి. **15×4 = 60**

7. ప్రాచీన పద్యభాగం నుండి రెండు పద్యాలు ఉంటాయి. (ఒకదానికి సందర్భం, కవి పరిచయం, ప్రతిపదార్థ తాత్పర్యాలు, వ్యాకరణాంశాలు వివరించాలి)

8. ప్రాచీన పద్యభాగం నుండి వస్తు విశ్లేషణ సంబంధించిన రెండు ప్రశ్నలిస్తారు. (ఒకదానికి సమాధానం రాయాలి)

9. ఆధునిక పద్యభాగం నుండి రెండు ప్రశ్నలు ఉంటాయి. (ఒకదానికి సమాధానం రాయాలి)

10. మొత్తం ఆరు శబ్దార్థాలంకారాలు (3 పేర్లు + 3 ఉదాహరణలు) ఇచ్చి మూడింటికి లక్ష్యలక్షణ సమన్వితంగా వివరించమని అడగాలి.

B.A., B.Sc., B.Com., & B.B.A., (CBCS)
Syllabus - 2020
Telugu (Second Language)
4th Semester

Unit - I. ప్రాచీన పద్యభాగం

1. నారద గానమాత్సర్యం ... పింగళి సూరన
2. వాగ్దాన భంగం ... ఆసూరి మరింగంటి వేంకట నరసింహాచార్యులు
3. నారసింహ శతకం ... ధర్మపురి శేషప్ప

Unit - II. ఆధునిక పద్యభాగం

1. నరుడ నేను, నరుడ నేను ... కాళోజీ
2. ఆర్తగీతం ... దేవరకొండ బాలగంగాధర తిలక్
3. దేవరకొండ దుర్గం ... డా॥ ముకురాల రామారెడ్డి

Unit - III. వచన విభాగం

1. అర్ధరాత్రి అరుణోదయం ... దాశరథి రంగాచార్య
2. సి.పి.బ్రౌన్ సాహిత్య సేవ ... జానమద్ది హనుమచ్ఛాస్త్రి
3. మన గ్రామ నామాలు ... డా॥ కపిలవాయి లింగమూర్తి
4. నివురు తొలగిన నిప్పు ... పోల్కంపల్లి శాంతాదేవి
5. కొండమల్లెలు ... ఇల్లిందల సరస్వతీదేవి

పాఠ్య గ్రంథం : తెలుగు అకాడమీ వారి 'సాహితీ కిన్నెర' తెలుగు వాచకం

B.A., B.Sc., B.Com., & B.B.A., (CBCS)
Telugu (Second Language) - 2020
4th Semester - Scheme of Question Paper

Time : 3 Hrs. **Marks : 80**

అ - భాగం (సంగ్రహ సమాధానాలు)

ఏవేని నాలుగు ప్రశ్నలకు సమాధానాలు రాయండి. 4×5 = 20

1. ప్రాచీన పద్యభాగం నుండి ఒక సందర్భం
2. ఆధునిక పద్యభాగం నుండి ఒక సందర్భం
3. ప్రాచీన, ఆధునిక పాఠ్యాంశాల నుండి వస్తు విశ్లేషణ
4. ఆధునిక పాఠ్యాంశాల నుండి కవుల / రచయితల పరిచయం
5. వచన విభాగం నుండి ప్రశ్న
6. వచన విభాగం నుండి ప్రశ్న

ఆ - భాగం (వ్యాసరూప సమాధానాలు)

అన్ని ప్రశ్నలకు సమాధానాలు రాయండి. 15×4 = 60

7. ప్రాచీన పద్యభాగం నుండి రెండు పద్యాలు ఉంటాయి. (ఒకదానికి సందర్భం, కవి పరిచయం, ప్రతిపదార్థ తాత్పర్యాలు, వ్యాకరణాంశాలు వివరించాలి)
8. ప్రాచీన పద్యభాగం నుండి రెండు ప్రశ్నలు ఉంటాయి. (ఒకదానికి సమాధానం రాయాలి)
9. ఆధునిక పద్యభాగం నుండి రెండు ప్రశ్నలు ఉంటాయి. (ఒకదానికి సమాధానం రాయాలి)
10. వచన విభాగం నుండి రెండు ప్రశ్నలు ఉంటాయి. (ఒకదానికి సమాధానం రాయాలి)

డిగ్రీ తృతీయ సంవత్సరం B.A, B.Sc., B.Com & BBA Second Language

TELUGU (CBCS)

2021-22

పాఠ్య ప్రణాళిక

V- సెమిస్టర్ 3 Credits

I - కవితా ప్రక్రియలు

1. పద్యం
2. వచన కవిత
3. పాట
4. మినీ కవిత
5. హైకు
6. నానీలు
7. రుబాయీలు
8. గజల్

II- తెలుగు వ్యాసం

1. తెలుగు వ్యాస పరిణామ క్రమం
2. తెలుగు వ్యాస లక్షణాలు
3. తెలుగు వ్యాసం- రచన సూత్రాలు
4. వ్యాస రచనలో భాషా ప్రయోగాలు

III-వచన సాహిత్యం

1. సాహిత్య అధ్యాయం- ఆవశ్యకత
2. ముందు మాట
3. పుస్తక సమీక్ష
4. జానపద సాహిత్య పరిచయం

డిగ్రీ తృతీయ సంవత్సరం B.A, B.Sc., B.Com & BBA Second Language TELUGU (CBCS)

2021-22

పాఠ్య ప్రణాళిక

VI- సెమిస్టర్ 3 Credits

I-సాహిత్య ప్రక్రియల పరిచయం

1. నాటకం
2. నవల
3. కథానిక
4. జీవిత చరిత్ర
5. ఉపన్యాస కళ

II - జర్నలిజంలో మౌలికాంశాలు

1. **వార్త – నిర్వచనం, లక్షణాలు**
2. లీడ్ – ఎడిటింగ్
3. వార్తా కథనాలు
4. అనువాదం
5. ఇంటర్వ్యూలు

III- అధ్యయన పరికల్పన నివేదిక- ప్రాజెక్టు పరిచయం

Telangana State

Telangana State Council for Higher Education (TSCHE) Hydearabd.

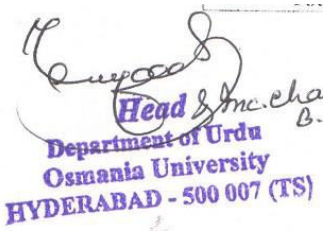
Syllabus

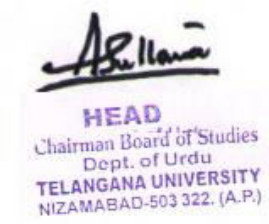
I[st] Year U.G. Course

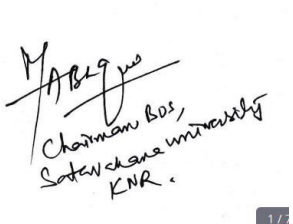
As per Choice Based Credit Grading System)

For First year & Second year U.G Course

(From the Academic Year 2019-2020)







Course Objectives:-

The 20-credit, Six-semesters course seeks to enhance the Urdu language skills of Urdu graduates students by

1. Introducing & enriching language & higher literature.
2. Imparting finer under current of contemporary literature
3. Exposing them to past & present morals & Ethics of society.
4. Improving their creative & critical thinking processes.
5. Show casing them the art of living in gust societies.
6. Introducing them to the world of peace & harmony, patience & tolerance.
7. Curbing bias of gender, religion, cast creed, rich / poor.
8. Teaching them the emergence of literature from the society behavior.

Course Outcomes:-

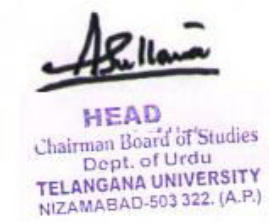
On successful completion of the 20-credit, Six-semesters course seeks to enhance the Urdu language skills of Urdu graduates students will be able to

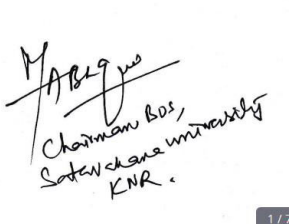
Get immense sense & ability of the cultural & literacy background extensively in the following manner.

1. He or she will be able to know the finest part of the Urdu language in respect of its Grammar, spelling & pronunciation of the words.
2. The students will be able to know the background, history and implementation of the Urdu language.
3. The poetry part of the language is very rich & attractive. One will know the life in a society better after reading Urdu couplets of the famous or infamous writers & he will enjoy them and share with the others to make their life enjoyable.
4. The prose part will also fetch a very impressive effect on society. Many files are based on the fiction and hence Urdu has been playing a good role in television serials too.
5. The never die image of the language is advantageous for its development. The students come across all such negative image but over comes all this. The language is so beautiful that one can lose his or her entire wealth in love for the language. No other language in the world has this pressing and the accepting quality. The students come to know all the aspects.
6. In the end this language teaches Ganga Jamuna culture of the country. Though its accepted in our Telangana State as a Second Language.

Credits, Syllabus, and Instructional Hours:

Semester	Number of Credits	Number of Units	Instruction (Clock hours per week)
I	4	4	4
II	4	4	4
III	3	3	3
IV	3	3	3
V	3	3	3
VI	3	3	3
Total	**20**	**20**	**20**





Telangana State Council of Higher Education, Govt. of Telangana
B.Sc., CBCS Common Core Syllabi for all Universities in Telangana (wef 2019-2020)

PROPOSED SCHEME FOR CHOICE BASED CREDIT SYSTEM IN B.Sc., BIOCHEMISTRY

SEMESTER-I				
Code	**Course Type**	**Course Title**	**HPW**	**Credits**
BS 101	AECC 1	Environmental Science	2	2
BS 102	L-1A	English	4	4
BS 103	L-2A	Second Language	4	4
BS 104	**DSC - 1A**	**Chemistry of Biomolecules**	**4T+2P=6**	**4+1=5**
BS 105	DSC - 2A	Optional II	4T+2P=6	4+1=5
BS 106	DSC - 3A	Optional III	4T+2P=6	4+1=5
		TOTAL		**25**
SEMESTER-II				
BS 201	AECC 2	Basic Computer Skills	2	2
BS 202	L-1B	English	4	4
BS 203	L -2B	Second Language	4	4
BS 204	**DSC -1B**	**Chemistry of Nucleic acids and Biochemical Techniques**	**4T+2P=6**	**4+1=5**
BS 205	DSC -2B	Optional II	4T+2P=6	4+1=5
BS 206	DSC -3B	Optional III	4T+2P=6	4+1=5
		TOTAL		**25**
SEMESTER-III				
BS 301	**SEC -1**	**Computational Biochemistry**	2	2
BS 302	**SEC - 2**	**Medical Lab Technology**	2	2
BS 303	L -1C	English	3	3
BS 304	L -2C	Second Language	3	3
BS 305	**DSC- 1C**	**Bioenergetics, Biological oxidation and Enzymology**	**4T+2P=6**	**4+1=5**
BS 306	DSC- 2C	Optional II	4T+2P=6	4+1=5
BS 307	DSC- 3C	Optional III	4T+2P=6	4+1=5
		TOTAL		**25**
SEMESTER-IV				
BS 401	**SEC – 3**	**Basics in Biochemical calculations and Biostatistics**	2	2

BS 402	**SEC – 4**	**Applied Biochemistry**	2	2
BS 403	L-1D	English	3	3
BS 404	L-2D	Second Language	3	3
BS 405	**DSC- 1D**	**Intermediary Metabolism**	**4T+2P=6**	**4+1=5**
BS 406	DSC- 2D	Optional II	4T+2P=6	4+1=5
BS 407	DSC- 3D	Optional III	4T+2P=6	4+1=5
		TOTAL		**25**
SEMESTER-V				
BS 501	**GE**	**Physiology and Biochemistry**	4T	4
BS 502	L-1E	English	3	3
BS 503	L-2E	Second Language	3	3
BS 504	**DSE-1E**	**A - Physiology and Clinical Biochemistry**	4T+2P=6	4+1=5
		B - Cell Biology and Genetics		
BS 505	DSE-2E	Optional II A/B	4T+2P=6	4+1=5
BS 506	DSE-3E	Optional III A/B	4T+2P=6	4+1=5
		TOTAL		**25**
	SEMESTER-VI			
BS 601	L-1F	English	3	3
BS 602	L-2F	Second Language	3	3
BS 603	DSE-1F	**A - Molecular Biology and Immunology**	4T+2P=6	4+1=5
		B – r-DNA technology and Biotechnology		
BS 604	DSE-2F	Optional II A/B	4T+2P=6	4+1=5
BS 605	DSE-3F	Optional III A/B	4T+2P=6	4+1=5
BS 606		Project work/Optionals	4	4
		TOTAL		**25**
		TOTAL CREDITS		**150**

AECC- Ability Enhancement Compulsory Course
DSC- Discipline Specific Core
SEC- Skill Enhancement Course
DSE- Discipline Specific Elective
GE- Generic Elective
HPW – Hours per week

Note: Credits under Non-CGPA : i. NSS/NCC/Sports/Extra-curricular – 2 in each year (up to 6)
ii. Summer internship – 2 in each after I & II years (up to 4)

Botany

B.Sc. Syllabus (CBCS)

(w.e.f. 2016)

Faculty of Science

PALAMURU UNIVERSITY

Mahabubnagar - 509 001, Telangana

2016

Palamuru University, Mahabubnagar - 509 001

Scheme of Insruction for B.Sc. I Year (I & II Semester) Botany under CBCS

FIRST YEAR SEMESTER-I				
Code	***Course Title***	***Course Type***	***HPW***	***Crdeits***
BS 104	Optional I	DSC I-A	4 T 2 P = 6	4 + 1 = 5
Paper-I Microbial Diversity of Lower Plants				
SEMESTER-II				
Code	***Course Title***	***Course Type***	***HPW***	***Crdeits***
BS 201	**Environmental Studies**	**AECC-2**	**2**	**2**
BS204	Optional-I	DSC-1B	4 T + 2P = 6	4 + 1 = 5
Paper-II Bryophytes Pteridophytes, Gymnosperms and Palaeobotany				
SECOND YEAR SEMESTER-III				
Code	***Course Title***	***Course Type***	***HPW***	***Crdeits***
BS304	Optional-I	DSC-IC	4 T + 2 P = 6	4 + 1 = 5
Paper-III Taxonomy of Angiosperms and Medicinal Botany				

SEMESTER-IV				
Code	***Course Title***	***Course Type***	***HPW***	***Crdeits***
BS404	Optional - I	DSC-ID	4 T + 2P = 6	4 + 1 = 5
Plant Anatomy, Embryology and Palynology				
THIRD YEAR SEMESTER-V				
Code	***Course Title***	***Course Type***	***HPW***	***Crdeits***
BS 503	Optional-I	DSC - IE	3 T + 2P = 5	3 + 1 = 4
Paper-V: Cell Biology and Genetics				
BS 506	Optional I A/B	DSE-I#	3T + 2P = 5	3 + 1 = 4
Elective-I Ecology and Biodiversity / Elective II: Horticulture				
SEMESTER-VI				
Code	***Course Title***	***Course Type***	***HPW***	***Crdeits***
BS 603	Optional-I	DSC - 1F	3 T + 2P = 5	3 + 1 = 4
Paper-VIII : Plant Physiology				
BS 606	Optional A/B/	DSE - IF	3 T + 2P = 5	3 + 1 = 4
Elective III Tissue Culture and Biotechnology / Elective-IV: Seed Technology				

AECC: Ability Enhancement Compulsory Course: DSC: Discipline Specific Course: DSE : Discipline Specific Elective

Proposed
B.Sc. Botany Syllabus

Under Choice Based Credit System

2019-20

Meeting held with Heads & Chairperson, BOS of Six Conventional Universities on 15th June, 2019 at TSCHE-Hyderabad.

Annexure – I (Credits)
Proposed CBCS Scheme for B.Sc.
w.e.f 2019-20

Courses		Papers	Total Credits	Credits for each paper / Semester B.Sc.					
				I	II	III	IV	V	VI
Core Courses DSC	Optional-1	4	20	5	5	5	5	-	-
	Optional-2	4	20	5	5	5	5	-	-
	Optional-3	4	20	5	5	5	5	-	-
Elective Courses DSE	Optional-1	2	10	-	-	-	-	5	5
	Optional-2	2	10	-	-	-	-	5	5
	Optional-3	2	10	-	-	-	-	5	5
Language	English(First Language)	5	20	4	4	3	3	3	3
	Second Language	5	20	4	4	3	3	3	3
Ability Enhancement Compulsory Course AECC	Environmental Science / Basic Computer Skills	1	2	2	-	-	-	-	-
	Basic Computer Skills / Environmental Science	1	2	-	2	-	-	-	-
Skill Enhancement Course SEC	SEC1	1	2	-	-	2	-	-	-
	SEC2	1	2	-	-	2	-	-	-
	SEC3	1	2	-	-	-	2	-	-
	SEC4	1	2	-	-	-	2	-	-
Generic Elective GE	Open Stream	1	4	-	-	-	-	4	-
Project Work/Optionals		1	4	-	-	-	-	-	4
Total Credits in each semester				25	25	25	25	25	25
Total Credits in UG				150					
Credits under Non-CGPA		NSS /NCC /sports / Extra curricular	6	Upto 6 (2 in each year)					
		Summer Internship	4	Upto 4 (2 in each, after I & II years)					

Annexure II

Proposed New Grading System

SGPA (SEMESTER GRADE POINT AVERAGE)			
S. No.	Grade Point	Range of marks	Grade Letter
1	10	Equal to and above 90 Marks	A+
2	9	More than or equal to 80 and less than 90 Marks	A
3	8	More than or equal to 70 and less than 80 Marks	B+
4	7	More than or equal to 60 and less than 70 Marks	B
5	6	More than or equal to 55 and less than 60 Marks	C+
6	5	More than or equal to 50 and less than 55 Marks	C
7	4	More than or equal to 40 and less than 50 Marks	D
8	0	Below 40 Marks	F

TELANGANA STATE COUNCIL OF HIGHER EDUCATION
PROPOSED CBCS COMMON CORE SCHEME FOR B.SC. COURSE
OPTIONAL -1: BOTANY

CODE	PAPER TITTLE	Course Type	HPW	Credits
	FIRST YEAR SEMSTER - I			
BS 104	PAPER-I : Microbial Diversity and Lower Plants	DSC-1A	4T+2P=6	4+1=5
	FIRST YEAR SEMSTER - II			
BS 204	PAPER-II: Gymnosperms, Taxonomy of Angiosperms and Ecology	DSC-1B	4T+2P=6	4+1=5
	SECOND YEAR SEMSTER - III			
BS 301	SEC-1: Nursery and Gardening	SEC-1	2	2
BS 302	SEC-2: Biofertilizers and Organic Farming	SEC-2	2	2
BS 304	PAPER-III: Plant Anatomy and Embryology	DSC-1C	4T+2P=6	4+1=5
	SECOND YEAR SEMSTER - IV			
BS 401	SEC-3: Greenhouse Technology	SEC-3	2	2
BS 402	SEC-4: Mushroom Culture Technology	SEC-4	2	2
BS 404	PAPER-IV : Cell Biology, Genetics & Plant Physiology	DSC-1D	4T+2P=6	4+1=5
	THIRD YEAR SEMESTER - V			
BS 501	GE-1: Industrial Microbiology	GE-1	4T	4
BS 502	DSE -1A: Biodiversity & Conservation DSE -1B: Economic Botany DSE -1C: Seed Technology	DSE-1A / DSE-1B / DSE-1C	4+2	4+1
	THIRD YEAR SEMESTER – VI			
BS 601	DSE-3: Project (Group Projects)	PROJECT	4	4
BS 602	DSE -2A: Plant Molecular Biology DSE -2B: Tissue Culture and Biotechnology DSE -2C: Analytical Techniques in Plant Sciences	DSE-2A / DSE-2B / DSE-5E	4T+2P=6	4+1=5

AECC: Ability Enhancement Compulsory Course, **SEC**: Skill Enhancement Course, **GE**: Generic Elective, **DSC**: Discipline Specific Core, **DSE**: Discipline Specific Elective.

Chemistry

B.Sc. Syllabus (CBCS)

(w.e.f. 2016 - 2017)

Faculty of Science

PALAMURU UNIVERSITY

Mahabubnagar - 509 001, Telangana

2016

B.Sc I yr CHEMISTRY
SEMESTER WISE SYLLABUS
SEMESTER I
Paper – I
Chemistry - I

Unit-I (Inorganic Chemistry) 15h(1 hr/week)

S1-I-1. s-block elements:

General Characteristics of groups I and II elements, Diagonal relationship between Li and Mg, Be and Al **2 h**

S1-I-2. p-block elements 1: 7 h

Group–13:Synthesis and structure of diborane and higher Boranes (B_4H_{10} and B_5H_9), Boron nitrogen compounds ($B_3N_3H_6$ and BN), Lewis acid nature of BX_3

Group – 14: Carbides-Classification – ionic, covalent, interstitial – synthesis.Structures and reactivity. Industrial application. Silicones – Preapartion – a) direct silicon process b) use of Grignard reagent c) aromatic silylation. Classification – straight chain, cyclic and cross-linked.

Group – 15: Nitrides – Classification – ionic, covalent and interstitial. Reactivity – hydrolysis.Preparation and reactions of hydrazine, hydroxyl amine, phosphazenes.

S1-I-3. General Principles of Inorganic qualitative analysis 6 h

Anion analysis: Theory of sodium carbonate extract, classification and reactions of anions-CO_3^{2-}, Cl^-, Br^-, SO_4^{2-}, PO_4^{3-}, BO_3^{3-},CH_3COO^-, NO_3^-.

Cation Analysis: Principles involved - Solubility product, common ion effect, general discussion for the separation and identification of group I individual cations (Hg_2^{2+}, Ag+, Pb+) with flow chart and chemical equations. Principle involved in separation of group II & IV cations.

General discussion for the separation and identification of group II (Hg^{2+}, Pb^{2+}, Bi^{3+}, Cd^{2+}, Sb^{2+}), III (Al^{3+}, Fe^{3+}), IV ((Mn^{2+}, Zn^{2+}) individual cations with flow chart and chemical equations. Application of concept of hydrolysis in group V cation analysis. General discussion for the separation and identification of group V individual cations (Ba^{2+}, Sr^{2+}, Ca^{2+}) with flow chart and chemical equations. Theory of flame test. Identification of Group VI cations (Mg^{2+}, NH_4^+).

Unit - II (Organic Chemistry) 15h(1 hr/week)

S1-O-1:Structural Theory in Organic Chemistry 6 h

***Bond polarization*:** Factors influencing the polarization of covalent bonds, electro negativity – inductive effect. Application of inductive effect (a) Basicity of amines (b) Acidity of carboxylic acids (c) Stability of carbonium ions. Resonance - Mesomeric effect, application to (a) acidity of phenol. (b) acidity of carboxylic acids and basicity of anilines. Stability of carbo cations, carbanions and free radicals. Hyper conjugation and its application to stability of carbonium ions, Free radicals and alkenes.

***Types of organic reactions*:** Addition reactions- electrophilic, nucleophilic and free radical. Substitution reactions – electrophilic, nucleophilic and free radical. Elimination and Rearrangement reactions– Examples.

S1-O-2:Acyclic Hydrocarbons 6 h

***Alkane*s**– Methods of preparation: Corey-House reaction, Wurtz reaction, from Grignard reagent, Kolbe synthesis. Chemical reactivity - inert nature, free radical substitution, Halogenation example- reactivity, selectivity and orientation.

Alkenes - Preparation of alkenes (with mechanism) (a) by dehydration of alcohols (b) dehydrohalogenation of alkyl halides (c) by dehalogenation of 1,2 dihalides, Zaitsev's rule. Properties: Addition of Hydrogen – heat of hydrogenation and stability of alkenes. trans-addition of halogen and its mechanism. Addition of HX, Markonikov's rule, addition of H_2O, HOX, H_2SO_4 with mechanism and addition of HBr in the presence of peroxide (anti – Markonikov's addition). Oxidation (cis – additions) – hydroxylation by $KMnO_4$, OsO_4, trans addition- peracids (via epoxidation), hydroboration, ozonolysis – location of double bond. Dienes – Types of dienes, reactions of conjugated dienes – 1,2 and 1,4 addition of HBr to 1,3 – butadiene and Diels – Alder reaction.

Alkynes– Preparation by dehydrohalogenation of vicinal dihalides, dehalogenation of tetrahalides. Physical Properties: Acidity of terminal alkynes (formation of metal acetylides) preparation of higher alkynes, Chemical reactivity – electrophilic addition of X_2, HX, H_2O (tautomerism), Oxidation (formation of enediol, 1,2 diones and carboxylic acids) and reduction (Metal-ammonia reduction, catalytic hydrogenation)

S1-O-3:Alicyclic Hydrocarbons 3 h

Nomenclature, preapartion by Freunds method, Dickmann, heating dicarboxylic metal salts. Properties – reactivity of cyclo propane and cyclo butane by comparing with alkanes. Stability of cycloalkanes – Baeyer strain theory, Sachse and Mohr predictions and Pitzer strain theory. Conformational structures ofcyclopentane, cyclohexane.

Unit-III (Physical Chemistry) 15 h (1 hr/week)

S1-P-1: Atomic structure and elementary quantum mechanics 6 h

Black body radiation, heat capacities of solids, Rayleigh Jeans law, Planck's radiation law, photoelectric effect,Limitations of classical mechanics, Compton effect, De Broglie's hypothesis. Heisenberg's uncertainty principle, Schrodinger's wave equation and its importance. Physical interpretation of the wave function, significance of ψ and ψ^2, a particle in a box, energy levels, wave functions and probability densities. Schrodinger wave equation for H-atom. Separation of variables, radial and angular functions (only equation), hydrogen like wave functions, quantum numbers and their importance.

S1-P-2:Gaseous State 5 h

Deviation of real gases from ideal behavior. van der Waals equation of state. Critical phenomenon. PV isotherms of real gases, continuity of state. Andrew's isotherms of CO_2. The van der Waal's equation and critical state. Derivation of relationship between critical constants and van der Waal's constants. The law of corresponding states, reduced equation of states. Joule Thomson effect and inversion temperature of a gas. Liquifaction of gases: i) Linde's method based on Joule Thomson effect ii) Claude's method based on adiabatic expansion of a gas.

S1-P-3: Liquid State 4 h

Intermolecular forces, structure of liquids (qualitative description). Structural differences between solids, liquids and gases. Surface tension and its determination using stalagmometer. Viscosity of a liquid and determination of coefficient of viscosity using Ostwald viscometer. Effect of temperature on surface tension and coefficient of viscosity of a liquid (qualitative treatment only). Liquid crystals, the mesomorphic state: Classification of liquid crystals in to Smectic and Nematic, differences between liquid crystal and solid / liquid. Application of liquid crystals as LCD devices.

Unit – IV (GeneralChemistry) 15 h (1 hr/week)

S1-G-1 Chemical Bonding 11 h

Ionic solids- lattice and solvation energy, solubility of ionic solids, Fajan's rule, polarity and polarizability of ions, covalent nature of ionic bond, covalent bond - Common hybridization and shapes of molecules.

Molecular orbital theory: Shapes and sign convention of atomic orbitals. Modes of overlapping. Concept of σ and π bonds. Criteria for orbital overlap. LCAO concept. Types of molecular orbitals- bonding, antibonding and non bonding. MOED of homonuclear diatomics - H_2, N_2, O_2,O_2^-,O_2^{2-},F_2 (unhybridized diagrams only) and heteronuclear diatomics CO, CN^- NO, NO^+ and HF. Bond order, stability and magnetic properties.

S1-G-2 Evaluation of analytical data 4 h

Significant figures, accuracy and precision. Errors-classification of errors- determinate and indeterminate errors, absolute and relative errors, propagation of errors in mathematical operations – addition, substraction, division and multiplication (with respect to determinate errors).

References:

Unit- I

1. Principles of Inorganic Chemistry by Puri, Sharma and Kalia Vishal Publications 1996.
2. Concise Inorganic Chemistry by J.D. Lee 3rd edn.
3. Basic Inorganic Chemistry by F.A.Cotton, G.Wilkinson and Paul.L. Gaus 3rd edn Wiley Publishers 2001. Chem.
4. Vogel's Qualitative Inorganic Analysis by Svehla
5. Inorganic Chemistry Principles of structure and reactivity by James E.Huhey, E.A. Keiter and R.L. Keiter 4th edn.
6. Chemistry of the elements by N.N.Greenwood and A. Earnshaw Pergamon Press 1989.
7. Inorganic Chemistry by Shriver and Atkins 3rd edn Oxford Press 1999.
8. Qualitative analysis by Welcher and Hahn.
9. Textbook of Inorganic Chemistry by R Gopalan
10. College Practical chemistry by V K Ahluwalia, Sunitha Dhingra and Adarsh Gulati

Unit- II

1. Text book of organic chemistry by Morrison and Boyd.
2. Text book of organic chemistry by Graham Solomons.
3. Text book of organic chemistry by Bruice Yuranis Powla.
4. Text book of organic chemistry by Soni.
5. General Organic chemistry by Sachin Kumar Ghosh.
6. Text book of organic chemistry by C N pillai

Unit III

1. Principles of physical chemistry by Prutton and Marron.
2. Text Book of Physical Chemistry by Soni and Dharmahara..
3. Text Book of Physical Chemistry by Puri and Sharma.
4. Text Book of Physical Chemistry by K. L. Kapoor.
5. Physical Chemistry through problems by S.K. Dogra.
6. Text Book of Physical Chemistry by R.P. Verma.
7. Elements of Physical Chemistry byLewis Glasstone.

Unit IV

1. Principles of Inorganic Chemistry by Puri, Sharma and Kalia Vishal Publications 1996.
2. Concise Inorganic Chemistry by J.D. Lee 3rd edn.
3. Basic Inorganic Chemistry by F.A.Cotton, G.Wilkinson and Paul.L. Gaus 3rd edn Wiley Publishers 2001. Chem
4. Analytical chemistry by G. L. David Krupadanam, D. Vijaya Prasad, K. Varaprasada Rao, K.L.N. Reddy and C. Sudhakar

Laboratory Course **45h (3 h / week)**

Paper IQualitative Analysis - I

I. Preparations:

1.Tetrammine copper (II) sulphate,
2.Potash alum $KAl(SO_4)_2.\ 12H_2O$,
3. Bis (dimethylglyoximato) nickel(II)

II. Analysis of two anions (one simple and one interfering)

B.Sc I yr CHEMISTRY
SEMESTER WISE SYLLABUS
SEMESTER II
Paper II
Chemistry - II

Unit-I (Inorganic Chemistry) 15 h (1 hr/week)

S2-I-1 p-block Elements -II 7 h

Oxides: Types of oxides (a) Normal- acidic, basic amphoteric and neutral (b) Mixed(c) sub oxide d) peroxide e) superoxide. Structure of oxides of C, N, P, S and Cl - reactivity, thermal stability, hydrolysis.

Oxy acids: Structure and acidic nature of oxyacids of B, C, N, P, S and Cl.Redox properties of oxyacids of Nitrogen: HNO_2 (reaction with $FeSO_4$, $KMnO_4$, $K_2Cr_2O_7$), HNO_3 (reaction with H_2S, Cu), HNO_4 (reaction with KBr, Aniline), $H_2N_2O_2$ (reaction with $KMnO_4$). Redox properties of oxyacids of Potasium: H_3PO_2 (reaction with $HgCl_2$), H_3PO_3 (reaction with $AgNO_3$, $CuSO_4$).
Redox properties of oxyacids of Sulphur: H_2SO_3 (reaction with $KMnO_4$, $K_2Cr_2O_7$), H_2SO_4 (reaction with Zn, Fe, Cu), $H_2S_2O_3$ (reaction with Cu, Au), H_2SO_5 (reaction with KI, $FeSO_4$), $H_2S_2O_8$ (reaction with $FeSO_4$, KI)

Interhalogens- classification- general preparation- structures of AB,AB_3, AB_5 and AB_7 type and reactivity. Poly halides- definition and structure of ICl_2^-, ICl_4^- and I_3^- .Comparison of Pseudohalogens with halogens.

S2-I-2 Chemistry of Zero group elements 2 h

General preparation, structure, bonding and reactivity of Xenon compounds – Oxides, Halides and Oxy-halides. Clatherate compounds and Anomalous behavior of He (II)

S2-I-3Chemistry of d-block elements 6 h

Characteristics of d-block elements with special reference to electronic configuration variable valence, ability to form complexes, magnetic properties &catalytic properties. Stability of various oxidation states and SRP Comparative treatment of second and third transition series with their 3d analogues. Study of Ti, Cr and Cu traids. Titanium triad – electronic configuration and reactivity of +3 and +4 states – oxides and halides. Chromium triad – reactivity of +3 and +6 states. Copper triad – reactivity of +1, +2 and +3 states.

Unit - II(Organic chemistry) 15 h (1 hr/week)

S2-O-1:Aromatic Hydrocarbons 7h

Concept of aromaticity –definition, Huckel's rule – application to Benzenoids and Non – Benzenoids (cyclopropenyl cation, cyclopentadienyl anion and tropylium cation).

Preapartions: From acetylene, phenols, benzene carboxylic acids and sulphonic acids

Reactions - General mechanism of electrophilic substitution, mechanism of nitration, sulphonation,and halogenation, Friedel Craft's alkylation(polyalkylation) and acylation. Orientation of aromatic substitution - Definition of ortho, para, and meta directing groups. Ring activating and deactivating groups with examples. Orientation – (i) activating groups: Amino, methoxy and alkyl groups. (ii) Deactivating groups - carboxy, nitro, nitrile, carbonyl and sulphonic acid& halo groups.

S2-O-2:Arenes and Polynuclear Aromatic Hydrocarbons 3 h

Preparation of alkyl benzenes by Friedel Craft's alkylation, Friedel Craft's acylation followed by reduction, Wurtz-Fittig reaction. Chemical reactivity: Ring substitution reactions,side chain substitution reactions and oxidation.

Polynuclear hydrocarbons – Structure of naphthalene and anthracene (Molecular Orbital diagram and resonance energy) Reactivity towards electrophilic substitution. Nitration and sulphonation as examples.

S2-O-3: Halogen compounds 5 hrs

Nomenclature and classification: alkyl (primary, secondary, tertiary), aryl, aralkyl, allyl, vinyl, benzyl. Chemical reactivity - reduction, formation of RMgX, Nucleophilic substitution reactions – classification into S_N^1 and S_N^2. Mechanism and energy profile diagrams of S_N^1 and S_N^2 reactions. Stereochemistry of S_N^2 (Walden Inversion) 2-bromobutane, S_N^1 (Racemisation) 1-bromo-1-phenylpropane explanation of both by taking the example of optically active alkyl halide. Structure and reactivity – Ease hydrolysis - comparison of alkyl, vinyl, allyl, aryl, and benzyl halides.

Unit – III (Physical Chemistry) 15 h (1 hr/week)

S2-P-1:Solutions 5 h

Liquid - liquid mixtures, ideal liquid mixtures**,** Raoult's and Henry's laws. Non ideal systems. Azeotropes HCl-H_2O and C_2H_5OH - H_2O systems. Fractional distillation,. Partially miscible liquids- Phenol – Water, Trimethyl amine – Water and Nicotine – Water systems. Lower upper consolute temperatures. Effect of impurity on consolute temperature.Immiscible liquids andsteam distillation. Nernst distribution law. Calculation of the partition coefficient. Applications of distribution law with solvent extraction.

S2-P-2: Dilute Solutions & Colligative Properties 5 h

Dilute Solutions, Colligative Properties, Raoult's law, relative lowering of vapour pressure, molecular weight determination. Osmosis - laws of osmotic pressure, its measurement, determination of molecular weight from osmotic pressure. Elevation of boiling point and depression of freezing point. Derivation of relation between molecular weight and elevation in boiling point and depression in freezing point. Experimental methods for determining various colligative properties. Abnormal molar mass, Van't hoff factor, degree of dissociation and assocoation of solutes.

S2-P-3: Solid state Chemistry 5 h

Laws of Crystallography – (i) Law of Constancy of interfacial angles (ii) Law of Symmetry, Symmetry elements in crystals (iii) Law of rationality of indices. Definition of space lattice, unit cell. Bravais Lattices and Seven Crystal systems (a brief review). X-ray diffraction by crystals; Derivation of Bragg's equation, Determination of structure of NaCl, KCl & CsCl (Bragg's method and Powder method).

Unit – IV (General Chemistry) 15 h (1 hr/week)

S2-G-1: Theory of Quantitative Analysis 5 hours

Volumetric Analysis: Introduction, standard solutions, indicators, end point, titration curves, Types of titrations: i)neutralization titration- principle, theory of acid base indicators, titration curves and selection of indicators- strong acid - strong base, strong acid –weak base, weak acid- strong base and weak acid –weak base.

Gravimetric analysis- Introduction, nucleation, precipitation, growth of precipitate, filtration and washing, drying and incineration of precipitate, coprecipitation and post precipitation. Determination of Ni^{2+}

S3-G-2: Theories of bonding in metals: 5 h

Valence bond theory, Explanation of metallic properties and its limitations, Free electron theory, thermal and electrical conductivity of metals, limitations, Band theory, formation of bands, explanation of conductors, semiconductors n-type and p-type, extrinsic & intrinsic semiconductors, and insulators.

S2-G-3: Material Science 5 h

Classification of materials- classification as metals, ceramics, organic polymers, composites, biological materials etc. The property of super conductivity of materials.

Super conducting materials- elements, alloys and compounds. Properties of super conductors- zero resistivity, Meisener effect and thermal properties. Composites- meaning of composites, advanced composites, classification –particle rein forced fiber reinforced and structural composites general characters of composite materials-Particle-reinforced composites – large particle and dispersion- strengthened composite. Fiber reinforced composites (continuous and discontinuous fiber composites).

References

Unit I

1. Principles of Inorganic Chemistry by Puri, Sharma and Kalia Vishal Publications 1996.
2. Concise Inorganic Chemistry by J.D. Lee 3rd edn.
3. Basic Inorganic Chemistry by F.A.Cotton, G.Wilkinson and Paul.L. Gaus 3rd edn
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4. Text Book of Physical Chemistry by K. L. Kapoor
5. Physical Chemistry through problems by S.K. Dogra.
6. Elements of Physical Chemistry by Lewis and Glasstone.
7. Material science by Kakani & Kakani

Unit IV

1. Vogel's Text Book of Quantitative Analysis by G.H.Jeffery, J.Bassett, J.Mendham and R.C. Denney 5th edn Addison Wesley Longman Inc. 1999.
2. Quantitative Analysis by Day and Underwood Prentice Hall (India) VI Edn..
3. Nano: The Essentials by T. Pradeep, McGraw-Hill Education.
4. Chemistry of nanomaterials: Synthesis, Properties and applications by CNR Rao et.al.
5. Nanostructured Materials and Nanotechnology, edited by Hari Singh Nalwa, Academic Press
6. College Practical chemistry by V K Ahluwalia, Sunitha Dhingra and Adarsh Gulati

Laboratory Course **45hrs (3 h / week)**

Paper II - Qualitative Analysis - II

I Semi micro analysis of mixtures

Analysis of two anions and two cations in the given mixture.

Anions: CO_3^{2-}, SO_3^{2-}, $.S^{2-}$ Cl^-, Br^-, I^- CH_3COO^-, NO_3^- PO_4^{3-}, BO_3^{3-}, SO_4^{2-}

Cations: Ag^+, Pb^{2+}, Hg^+, Hg^{2+}
Pb^{2+}, Bi^{3+}, Cd^{2+}, Cu^{2+}, $As^{3+/5+}$, $Sb^{3+/5+}$, $Sn^{2+/4+}$
Al^{3+}, Cr^{3+}, Fe^{3+}
Zn^{2+}, Ni^{2+}, Co^{2+}, Mn^{2+}
Ca^{2+}, Sr^{2+}, Ba^{2+}
Mg^{2+}, NH_4^+

B.Sc II yr CHEMISTRY
SEMESTER WISE SYLLABUS
SEMESTER III
Paper-III
Chemistry - III

Unit-I (Inorganic Chemistry) 15 h (1 hr/week)

S3-I-1: Chemistry of f-block elements: 6 h

Chemistry of Lanthanides**:**Position in periodic table,Electronic structure, oxidation state, ionic and atomic radii- lanthanide contraction- cause and consequences, anomalous behavior of post lanthanides-complexation- type of donor ligands preferred. Magnetic properties- paramagnetism. Colour and spectra, f-f transitions –occurrence and separation – ion exchange method, solvent extraction.

Chemistry of actinides- general features – electronic configuration, oxidation state, actinide contraction, colour and complex formation. Comparison with lanthanides.

S3-I-2: Symmetry of molecules 5 h

Symmetry operations and symmetry elements in molecules. Definition of Axis of symmetry types of C_n, Plane of symmetry (σh, σv, σd) Center of symmetry and improper rotational axis of symmetry (S_n). Explanation with examples.

S3-I-3: Non – aqueous solvents 4 h

Classification and characteristics of a solvent. Reactions in liquid ammonia – physical properties, auto-ionisation, examples of ammono acids and ammono bases. Reactions in liquid ammonia – precipitation, neutralization, solvolysis, solvation - solutions of metals in ammonia, complex formation, redox reactions. Reactions in HF – autoionisation, reactions in HF – precipitation, acid – base reactions, protonation.

Unit - II (Organic chemistry) 15 h (1 hr/week)

S3-O-1: Alcohols 6 hrs

Preaparation: 1°, 2° and 3° alchols using Griganard reagent, Ester hydrolysis, Reduction of Carbonyl compounds, carboxylic acids and esters. Physical properties: H-bonding, Boiling point and Solubility. Reactions with Sodium, $HX/ZnCl_2$ (Lucas reagent), esterification, oxidation with PCC, alk. $KMnO_4$, acidic dichromates, conc. HNO_3 and Oppenauer oxidation.

Diols: Pinacol - pinacolone rearrangement

Phenols: Preapartion: (i) from diazonium salts of anilines, (ii) from benzene sulphonic acids and (iii) Cumene hydroperoxide method.

Properties: Acidic nature, formation of phenoxide and reaction with R-X, electrophilic substitution nitration, halogenation and sulphonation. Riemer Tiemann reaction, Gattermann-Koch reaction, Azo-coupling reaction, Schotton-Boumann raction, Houben-Hoesch condensation, $FeCl_3$ reaction.

S3-O-2: Ethers and epoxides 2 hrs

Nomenclature, preparation by (a) Williamson's synthesis (b) from alkenes by the action of conc. H_2SO_4. Physical properties – Absence of Hydrogen bonding, insoluble in water, low boiling point. Chemical properties – inert nature, action of conc. H_2SO_4 and HI.

S3-O-3 Carbonyl compounds 7 h

Nomenclature of aliphatic and aromatic carbonyl compounds and isomerism.

Praparation of aldehydes & ketones from acid chloride,1,3-dithianes, nitriles and from carboxylic acids. Special methods of preparing aromatic aldehydes and ketones by (a) Oxidation of arenes (b) Hydrolysis of benzal halides Physical properties – absence of Hydrogen bonding. Keto-enol tautomerism, polarisability of carbonyl groups, reactivity of the carbonyl groups in aldehydes and ketones. Chemical reactivity: Addition of [a] $NaHSO_3$ (b) HCN (c) RMgX (d) NH_3 (e) RNH_2 (f)NH_2OH(g) $PhNHNH_2$ (h) 2,4DNP (Schiff bases). Addition of H_2O to form hydrate (unstable), comparison with chloral hydrate (stable), addition of alcohols - hemi acetal and acetal formation. Base catalysed reactions with mechanism- Aldol, Cannizaro reaction, Perkin reaction, Benzoin condensation, haloform reaction, Knoevengeal condensation. Oxidation reactions – $KMnO_4$ oxidation and auto oxidation, reduction – catalytic hydrogenation, Clemmenson's reduction, Wolf- kishner reduction, Meerwein Pondoff Verly reduction, reduction with LAH, $NaBH_4$. Analysis – 2,4 –DNP test, Tollen's test, Fehlings test, Scihff'stest, haloform test (with equations).

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UNIT – III (Physical Chemistry) 15 hr (1h / week)

S3-P-1: Phase Rule 6 h

Statement and meaning of the terms – Phase, Component and degrees of freedom, Gibb's Phase rule, phase equilibria of one component system – water system. Phase equilibria of two-component system – Solid-Liquid equilibria, simple eutectic – Pb-Ag system, desilverisation of lead. Solid solutions – compound with congruent melting point – Mg-Zn system and incongruent melting point – NaCl-H_2O system.

S3-P-2:Colloids& surface chemistry 9 h

Definition of colloids. Classification of colloids. Solids in liquids (sols): preparations and properties – (including Kinetic, Optical and Electricalstability of colloids) Protective action. Hardy–Schultz law, Gold number. Liquids in liquids(emulsions): Types of emulsions, preparation and emusifier. Liquids in solids(gels); Classification, preparations and properties, General applications of colloids.

Micelles: Classification of surface active agents. Surfactant action, micellization and micellar interactions, Structure of micelles – spherical and laminar. Critical micellar concentration (CMC). Factors affecting the CMC of surfactants. Counter ion binding to micelles.

Adsorption: Types of adsorption, Factors influencing adsorption. Freundlich adsorption isotherm. Langmuir theory of unilayer adsorption isotherm. Applications**.**

Unit –IV (General Chemistry) 15 h (1h/week)

S3-G-1: ***Nanomaterials:*** 3h

Nano structured materials – Definition, size, description of graphene, fullerenes, carbon nano tubes. Synthetic techniques, bottom-up-sol-gel method, top-down, electro deposition method. Production of carbon nano tubes – arc discharge, laser vaporization methods. General applications of nano materials.

S3-G-2: Stereochemistry of carbon compounds 10 h

Isomerism: Definition of isomers. Classification of isomers: Constitutional and Stereoisomers - definition and examples. Constitutional isomers: chain, functional and positional isomers. Stereoisomers: enantiomers and diastereomers – definitions and examples.

Optical activity:Definition, wave nature of light, plane polarised light, optical rotation and specific rotation, chiral centers. Chiral molecules: definition and criteria - absence of plane, center and S_n axis of symmetry – asymmetric and dissymmetric molecules. Examples of asymmetric molecules (Glyceraldehyde, Lactic acid, Alanine) and disymmetric molecules (trans-1,2-dichlorocyclopropane). Molecules with constitutionally symmetrical chiral carbons (Tartaric acid) Molecules with constitutionally unsymmetrical chiral carbons (2,3-dibromopentane)Number of enantiomers and mesomers - calculation. D, L &, R, S configuration for asymmetric and disymmetric molecules (Allenes, spiro compounds and biphenyls), Cahn-Ingold-Prelog rules. Racemic mixture, Racemisation and Resolution techniques. Geometrical isomerism with reference to alkenes and cyclo alkanes– cis, trans and E, Z configuration.

S3-G-3: Conformational analysis 2 h

Classification of stereoisomers based on energy. Definition and examples of conformational and configurational isomers. Conformational analysis of ethane, n-butane, 1,2-dichloroethane,2-chloroethanol and methylcyclohexane

Referances:

Unit- I

1. Principles of Inorganic Chemistry by Puri, Sharma and Kalia Vishal Publications 1996.
2. Concise Inorganic Chemistry by J.D. Lee 3rd edn.
3. Basic Inorganic Chemistry by F.A.Cotton, G.Wilkinson and Paul.L. Gaus 3rd edn Wiley Publishers 2001.
4. Inorganic Chemistry Principles of structure and reactivity by James E.Huhey, E.A. Keiter and R.L. Keiter 4th edn.
5. Chemistry of the elements by N.N.Greenwood and A. Earnshaw Pergamon Press 1989.
6. Inorganic Chemistry by Shriver and Atkins 3rd edn Oxford Press 1999.
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1. Text book of organic chemistry by Soni.
2. General Organic chemistry by Sachin Kumar Ghosh.
3. Text book of organic chemistry by Morrison and Boyd.
4. Text book of organic chemistry by Graham Solomons.
5. Text book of organic chemistry by Bruice Yuranis Powla.
6. Text book of organic chemistry by C N pillai

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1. Principles of physical chemistry by Prutton and Marron.
2. Text Book of Physical Chemistry by Soni and Dharmahara..
3. Text Book of Physical Chemistry by Puri and Sharma.
4. Text Book of Physical Chemistry by K. L. Kapoor.
5. Colloidal and surface chemistry , M. Satake, Y. Hayashi, Y.Mido, S.A.Iqbal and M.S.sethi
6. Material science by Kakani & Kakani

Unit IV

1. Text book of organic chemistry by Morrison and Boyd
2. Text book of organic chemistry by Graham solomons
3. Text book of organic chemistry by Sony
4. Text book of organic chemistry by Bruice yuranis Powla
5. General Organic chemistry by Sachin kumar Ghosh

Laboratory Course

Paper III- Quantitative Analysis - I 45hrs (3 h / week)

Acid - Base titrations

1. Estimation of Carbonate in Washing Soda.
2. Estimation of Bicarbonate in Baking Soda.
3. Estimation of Carbonate and Bicarbonate in the Mixture.
4. Estimation of Alkali content in Antacid using HCl.

Redox Titrations

1. Determination of Fe(II) using $K_2Cr_2O_7$
2. Determination of Fe(II) using $KMnO_4$ with sodium oxalate as primary standard.
3. Determination of Cu(II) using $Na_2S_2O_3$ with $K_2Cr_2O_7$ as primary standard

B.Sc II yr CHEMISTRY
SEMESTER WISE SYLLABUS
SEMESTER IV
Paper-IV
Chemistry - IV

Unit-I (Inorganic Chemistry) 15h (1 h/week)

S4-I-1: Coordination Compounds-I 7 h

Simple inorganic molecules and coordination complexes. Nomenclature – IUPAC rules, 1. Brief review of Werner's theory,Sidgwick's electronic interpretation and EAN rule and their limitations. (Valence bond theory (VBT) – postulates and application to (a) tetrahedral complexes $[Ni(NH_3)_4]^{2+}$, $[NiCl_4]^{2-}$ and $[Ni(CO)_4]$ **(**b) square planar complexes $[Ni(CN)_4]^{2-}$, $[Cu(NH_3)_4]^{2+}$, $[PtCl_4]^{2-}$ (c) octahedral complexes $[Fe(CN)_6]^{4-}$, $[Fe(CN)_6]^{-3}$, $[FeF_6]^{4-}$, $[Co(NH_3)_6]^{3+}$, $[CoF_6]^{3-}$. Limitations of VBT).2. Coordination number, coordination geometries of metal ions, types of ligands. 3. Isomerism in coordination compounds, stereo isomerism –(a)geometrical isomerism in (i) square planar metal complexes of the type$[MA_2B_2]$, $[MA_2BC]$, $[M(AB)_2]$, [MABCD]. (ii) Octahedral metal complexes of the type $[MA_4B_2]$, $[M(AA)_2B_2]$, $[MA_3B_3]$ using suitable examples, (b) Optical isomerism in (i). tetrahedral complexes [MABCD], (ii). Octahedral complexes $[M(AA)_2B_2]$, $[M(AA)_3]$ using suitable examples. Structural isomerism: ionization, linkage, coordination ligand isomerism using suitable examples.

S4-I-2:Organometallic Chemistry 4h

Definition, nomenclature and classification of organometallic compounds.Methods of preparation, properties and applications of alkyl and aryl compounds of Li, Mg &Al. Preparation and properties of ferrocene.

S4-I-3: Metal carbonyls and related compounds 4h

18 valence electron rule, classification of metal carbonyls: $Ni(CO)_4$, $Fe(CO)_5$, $Fe_2(CO)_9$, $Fe_3(CO)_{12}$ and $Cr(CO)_6$, Preparation and properties of Ni(CO)4.

UNIT - II (Organic chemistry) 15 h (1 hr/week)

S4-O-1: Carboxylic acids and derivatives 6h

Nomenclature, classification and methods of preparation a) Hydrolysis of Nitriles, amides and esters. b) Carbonation of Grignard reagents. Special methods of preparation of Aromatic Acids. Oxidation of the side chain of Arenes. Hydrolysis of benzotrichlorides. Kolbe reaction. Physical properties- hydrogen bonding, dimeric association, acidity – strength of acids with the examples of trimethyl acetic acid and trichloro acetic acid, Relative differences in the acidity of Aromatic, aliphatic acids& phenols. Chemical properties – Reactions involving H, OH and COOH groups -salt formation, anhydride formation, Acid halide formation, Esterification (mechanism) & Amide formation. Reduction of acid to the corresponding primary alcohol - via ester or acid chloride. Degradation of carboxylic acids by Huns Diecker reaction, Schmidt reaction (Decarboxylation). Arndt – Eistert synthesis, Halogenation by Hell – Volhard - Zelensky reaction. Carboxylic acid Derivatives – Reactions of acid halides, Acid anhydrides, acid amides and esters (mechanism of ester hydrolysis by base and acid).

S4-O-2: Synthesis based on Carbanions 3h

Acidity of α-Hydrogens of withdrawing groups, structure of carbanion. Preparation of Aceto acetic ester (ethylacetoester) by Claisen condensation and synthetic application of Aceto acetic ester. (a) Acid hydrolysis and ketonic hydrolysis: Butanone, 3-Methyl 2-butanone. Preparation of (i) monocarboxylic acids ii) dicarboxylic acids (b) malonic ester – synthetic applications. Preparation of (i) substituted mono carboxylic acids and (ii) substituted dicarboxylic acids.

S4-O-3Nitro hydrocarbons: 6 h

Nomenclature and classification of nitro hydrocarbons. Structure. Tautomerism of nitroalkanes leading to aci and keto form. Preparation of Nitroalkanes. Reactivity - halogenation, reaction with HNO_2 (Nitrous acid), Nef reaction, Mannich reaction,Michael addition and reduction. Aromatic Nitro hydrocarbons: Nomenclature, Preparation of Nitrobenzene by Nitration. Physical properties, chemical reactivity – orientation of electrophilic substitution on nitrobenzene. Reduction reaction of Nitrobenzenes in different media.

Unit – III (Physical Chemistry) 15 hr (1h / week)

S4-P-1: Electrochemistry & EMF 15 h

Electrical transport – conduction in metals and in electrolyte solutions, specific conductance and equivalent conductance, measurement of equivalent conductance, variation of specific and equivalent conductance with dilution. Migration of ions and Kholrausch's law, Arrhenius theory of electrolyte dissociation and its limitations, weak and strong electrolytes, Ostwald's dilution law, its uses and limitations. Debye-Huckel-Onsagar's equation for strong electrolytes (elementary treatment only). Transport number, definition and determination by Hittorf's method for attackable electrodes. Applications of conductivity measurements: Determination of degree of dissociation, determination of K_a of acids, determination of solubility product of a sparingly soluble salt, conductometric titrations.

Electrolyte and Galvanic cells – reversible and irreversible cells, conventional representation of electrochemical cells. EMF of a cell and its measurement. Computation of EMF. Types of reversible electrodes- the gas electrode, metal-metal ion, metal-insoluble salt and redox electrodes. Electrode reactions, Nernst equation, cell EMF and single electrode potential, standard Hydrogen electrode – reference electrodes (calamel electrode) – standard electrode potential, sign conventions, electrochemical series and its significance.

Applications of EMF measurements, Calculation of thermodynamic quantities of cell reactions (ΔG, ΔH and K). Determination of pH using hydrogen electrode, glass electrode and quinhydrone electrode, Solubility product of AgCl. Potentiometric titrations.

Unit –IV (General Chemistry) 15 h (1h/week)

S4-G-1: Pericyclic Reactions 5 h

Concerted reactions, Molecular orbitals of ethene,1,3-butadiene and allyl radical. Symmetry properties, HOMO, LUMO, Thermal and photochemical pericyclic reactions. Types of pericyclic reactions – electrocyclic, cycloaddition and sigmatropic reactions – one example each and their explanation by FMO theory.

S4-G-2: Synthetic Strategies 5 h

Terminology – Target molecule (TM), Disconnection approach – Retrosynthesis, Synthon, Synthetic equivalent (SE), Functional group interconversion (FGI), Linear, Convergent synthesis. Retrosynthetic analysis of the following molecules: 1) acetophenone 2) cyclohexene and 3) phenylethylbromide.

S4-G-3: **Asymmetric synthesis 5 h**

Definition and classification of stereoslective reactions: substrate, product stereoselective reactions, enantio and diastereo selective reactions. Stereospecific reaction – definition – example – dehalogenation of 1,2-dibromides induced by iodide ion. Enantoselective reactions – definition – example –Reduction of Ethylacetoacetate by Yeast. Diastereoselective reaction-definition-example:Acid catalysed dehydration of 1-phenylproponal and Grignard addition to 2-phenyl propanal. Definition and explanation of enantiomeric excess and diastereomeric excess.

References:

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1. Principles of Inorganic Chemistry by Puri, Sharma and Kalia Vishal Publications
2. 1996.
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5. Physical Chemistry through problems by S.K. Dogra.
6. Text Book of Physical Chemistry by R.P. Verma.
7. Elements of Physical Chemistry byLewis Glasstone.
8. Industrial Electrochemistry, D. Pletcher, Chapman & Hall

Unit IV

1. Text book of organic chemistry by Morrison and Boyd
2. Text book of organic chemistry by Graham solomons
3. Fundamentals of organic synthesis and retrosynthetic analysis
4. by Ratna Kumar Kar
5. Organic synthesis by Dr. Jagadamba Singh and Dr. L.D.S. Yadav
6. Stereochemistry of organic compounds by D. Nasipuri
7. Organic chemistry by Clayden, Greeves, Warren and Wothers
8. Fundamentals of Asymmetric Synthesis by G. L. David Krupadanam

Laboratory Course

Paper IV- Quantitative Analysis - II 45hrs (3h/ week))

1. Conductometry titrations:
   i) Strong acid Vs Strong base;
   ii) Weak acid Vs Strong base.
2. Potentiometry titration:
   i) Strong acid Vs Strong base;
   ii) Weak acid Vs Strong base.
3. Estimation of Nickel by back titration (Standard $MgSO_4$ solution will be given)
4. Estimation of Barium as Barium Sulphate

B.Sc III yr CHEMISTRY
SEMESTER WISE SYLLABUS
SEMESTER V
Paper-V
Chemistry - V

Unit-I (Inorganic Chemistry) 11 h

S5-I-1: Coordination compounds –II 9 h

Crystal field theory (CFT)- Postulates of CFT, splitting patterns of d-orbitals in octahedral, tetrahedral, square planer with suitable examples. Crystalfield stabilization energies and its calculations for various d^n configurations in octahedral complexes. High Spin Low Spin complexes.

Magnetic properties of transition metal complexes- para, dia, ferro , anti ferromagnetic properties, determination of magnetic susceptibility (Guoy method), spin only formula, calculations of magnetic moments.

Electronic spectra of metal complexes – colour of transtion metal aqua complexes– d-d transitions.Detection of complex formation - basic principles of various methods- change in chemical properties, solubility, colour, pH, conductivity, magnetic susceptibility.

Thermodynamic and kinetic stability of transition of metal complexes . Stability of metal complexes –stepwise and overall stability constant andf their relationship.Factors effecting the stability constants. Chelate effect, determination of composition of complex by Job's method and mole ratio method.

Applications of coordination compounds

Applications of coordination compounds a) in quantitative and qualitative analysis with suitable examples b) in medicine for removal of toxic metal ions and cancer therapy c) in industry as catalysts polymerization – Ziegler Natta catalyst d) water softening .

S5-I-2: Boranes and Carboranes: 2 h

Definition of clusters. Structures of boranes and carboranes- Wade's rules,closo, nido arachno Boranes and carboranes.

Unit-II (Organic Chemistry) 11 h

S5-O-1: Amines, Cyanides and Isocyanides 7 h

Amines:

Nomenclature, classification into 1^0, 2^0, 3^0Amines and Quarternary ammonium compounds. Preparative methods – 1. Ammonolysis of alkyl halides 2. Gabriel synthesis 3. Hoffman's bromamide reaction (mechanism). Reduction of Amides and Schmidt reaction. Physical properties and basic character – Comparative basic strength of Ammonia, methyl amine, dimethyl amine, trimethyl amine and aniline- comparative basic strength of aniline, N-methylaniline and N,N- dimethyl aniline (in aqueous and non- aqueous medium), steric effects and substituent effects. Use of amine salts as phase transfer catalysts. 4. Chemical Properties: a) Alkylation b) Acylation c) Carbylamine reaction d) Hinsberg separation. 5. Reaction with Nitrous acid of 1^0, 2^0, 3^0 (Aliphatic and aromatic amines).

Electophilic substitutions of Aromatic amines – Bromination and Nitration, oxidation of aryl and 3^0 Amines, diazotisation. 6. Diazonium salts: Preparation with mechanism. Synthetic importance – a) Replacement of diazonium group by – OH, X (Cl)- Sandmeyer and Gatterman reaction, by fluorine (Schiemann's reaction), by iodine, CN, NO_2, H and aryl groups. Coupling Reaction of diazonium salts. i) with phenols ii) with anilines. Reduction to phenyl hydrazines.

Cyanides and isocyanides:

Nomenclature (aliphatic and aromatic) structure. Preparation of cyanides from a) Alkyl halides b) from amides c) from aldoximes. Preparation of isocyanides from Alkyl halides and Amines. 2. Properties of cyanides and isocyanides, a)hydrolysis b) addition of Grignard reagent iii) reduction iv) oxidation.

S5-O-2: Heterocyclic Compounds 4 h

Introduction and definition: Simple 5 membered ring compounds with one hetero atom Ex. Furan. Thiophene and pyrrole. Importance of ring systems – presence in important natural products like hemoglobin and chlorophyll. Numbering the ring systems as per Greek letter and Numbers. Aromatic character – 6- electron system (four-electrons from two double bonds and a pair of non-bonded electrons from the hetero atom). Tendency to undergo substitution reactions.

Resonance structures: Indicating electron surplus carbons and electron deficient hetero atom. Explanation of feebly acidic character of pyrrol, electrophillic substitution at 2 or 5 position, Halogenation, Nitration and Sulphonation under mild conditions. Reactivity of furan as 1,3-diene, Diels Alder reactions (one example). Sulphonation of thiophene purification of Benzene obtained from coal tar). Preparation of furan, Pyrrole and thiophene from 1,4,- dicarbonyl compounds only, Paul-Knorr synthesis, structure of pyridine, Basicity – Aromaticity – Comparison with pyrrole – one method of preparation and properties – Reactivity towards Nucleophilic substitution reaction – chichibabin reaction.

Unit-III(Physical Chemistry)

S5-P-1: Chemical Kinetics 11 h

Introduction to chemical kinetics, rate of reaction, variation of concentration with time, rate laws and rate constant. Specific reaction rate.Factors influencing reaction rates: effect of concentration of reactants, effect of temperature, effect of pressure, effect of reaction medium, effect of radiation, effect of catalyst with simple examples, order of reaction.

First order reaction, derivation of equation for rate constant. Characteristics of first order reaction. Units for rate constant. Half- life period, graph of 1^{st} order reaction, examples. Decomposition of H_2O_2 and decomposition of oxalic acid.

Pseudo first order reaction, Hydrolysis of methyl acetate, inversion of cane sugar, problems.

Second order reaction, derivation of expression for 2^{nd} order rate constant, examples- Saponification of ester, $2O_3$ ---→ $3O_2$, $C_2H_4 + H_2$ ------.> C_2H_6. characteristics of second order reaction, units for rate constants, half- life period and second order plots.

Zero order reaction: derivation of rate expression, examples i)combination of H_2 and Cl_2 to form HCl, ii) thermal decomposition of HI on gold surface characteristics of Zero order reaction units of k, half-life period and graph, problems.
Determination of order of reaction: i) method of integration, ii) half life method, iii) vant-Hoff differential method iv) Ostwald's isolation method. Problems
Kinetics of complex reactions (first order only): opposing reactions, parallel reactions, consecutive reactions and chain reactions. Problems.
Effect of temperature on reaction rate, Arrhenius equation. Temperature coefficient. Concept of energy of activation, determination of energy of activation from Arrhenius equation and by graphical method, problems.Simple collision theory based on hard sphere model explanation of frequency factor, orientation or steric factor. The transition state theory (elementary treatment).

Unit-IV (General Chemistry) 12 h

S5-G-2: Molecular spectroscopy 8 h

Introduction to electromagnetic radiation, interaction of electromagnetic rations with molecules, various types of molecular spectra.

Rotational spectroscopy (Microwave spectroscopy)
Rotational axis, moment of inertia, classification of molecules (based on moment of inertia), rotational energies, selection rules, determination of bond length of rigid diatomic molecules eg. HCl.

Infra red spectroscopy
Energy levels of simple harmonic oscillator, molecular vibration spectrum, selection rules. Determination of force constant. Qualitative relation of force constant to bond energies. Anharmonic motion of real molecules and energy levels. Modes of vibrations in polyatomic molecules. Characteristic absorption bands of various functional groups. Finger print nature of infrared spectrum.

Electronic spectroscopy:
Bonding and antibonding molecular orbitals,electronic energy levels of molecules (σ,π, n), types of electronic transitions:σ-σ^*, n-σ^*, n-π^*, π-π^* with suitable examples.Selection rules,Terminology of chromophore, auxochrome, bathochromic and hypsochromic shifts. Absorption of characteristicsof chromophones: diene, enone and aromatic chromophores. Representation of UV-visible spectra.

S5-G-3: Photochemistry 4 h
Introduction to photochemical reactions, Difference between thermal and photochemical reactions, Laws of photo chemistry- Grotthus - Drapper law, Stark – Einsteins Law of photo chemical equivalence.Quantum yield. Examples of photo chemical reactions with different quantum yields. Photo chemical combinations of H_2 – Cl_2 and H_2 – Br_2 reactions, reasons for the high and low quantum yield. Problems based on quantum efficiency,Consequences of light absorptions. Singlet and triplet states. Jablonski diagram Explanation of internal conversion, inter- system crossing, Phosphorescence,fluorescence.

References :

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1. Principles of Inorganic Chemistry by Puri, Sharma and Kalia Vishal Publications 1996.
2. Concise Inorganic Chemistry by J.D. Lee 3rd edn.
3. Basic Inorganic Chemistry by F.A.Cotton, G.Wilkinson and Paul.L. Gaus 3rd edn Wiley Publishers 2001. Chem.
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5. Text Book of Physical Chemistry by K. L. Kapoor.
6. Physical Chemistry through problems by S.K. Dogra.
7. Text Book of Physical Chemistry by R.P. Verma.
8. Elements of Physical Chemistry byLewis Glasstone.
9. Basics of Chemical Kinetics by G.L. Agarwal
10. Kinetics and mechanism of chemical transformations by Rajaram & Kuriacose

Unit IV

1. Bioinorganic Chemistry, M.N.Huges
2. Organic spectroscopy, William Kemp
3. Text Book of Physical Chemistry by Puri,Sharmaand Pattania.
4. Photochemistry by Gurdeep Raj, Goel publishing house, 5th edition

Laboratory Course:

Paper V(Organic Chemistry) (CHE 551) 45 h (3h/w)

1. Synthesis of Organic compounds:

Acetylation: Acetylation of salicylic acid, Benzoylation of Aniline.

Aromatic electrophilic substitution: Nitration: Preparation of nitro benzene and m-dinitro benzene.

Halogenation: Preparation of p-bromo acetanilide, Preparation of 2,4,6-tribromo phenol

Oxidation: Preparation of benzoic acid from benzyl chloride.

Esterification: Preparation of n-butyl acetate from acetic acid.

Methylation: Preparation of β- naphthyl methyl ether.

Condensation: Preparation of benzilidine aniline and Benzaldehyde and aniline.

Diazotisation: Azocoupling of β-Naphthol.

2. Thin layer Chromatography

Determination of Rf values and identification of organic compounds: preparation and separation of 2,4-dinitrophenyl hydrazones of acetione and 2-butanone using toluene and light petroleum(40:60)
Separation of ortho & para nitro aniline mixtures

3. Microwave assisted synthesis of organic compounds – DEMO (demonstration only)

B.Sc. III yr CHEMISTRY
SEMESTER WISE SYLLABUS
SEMESTER V
Paper-VI
Chemistry - VI

Unit-I (Inorganic Chemistry) 11 h

S5-I-1:Inorganic reaction mechanisms 4h

Labile and inert complexes, Thermodynamic and kinetic stability based on VBT & CFT: ligand substitution reactions – S_N1 and S_N2 in Octahedral complexes; substitution reactions of square planar complexes – Trans effect and applications of trans effect.
Reactions of tetrahedral complexes - Hydrolysis of silicon halides and phosphorous oxides.

S5-I-2:Bioinorganic chemistry 5h

Essential elements, biological significance of Na, K, Mg, Ca, Fe, Co, Ni, Cu, Zn and chloride (Cl^-). Toxic metal ions As, Hg & Pb
Oxygen transport and storage – structure of hemoglobin, binding and transport of oxygen. Fixation of CO_2 in photosynthesis- overview of light and dark reactions in photosynthesis. Structure of chlorophyll and coordination of magnesium. Electron transport in light reactions from water to $NADP^+$ (Z – scheme).

S5-I-3:Hard and soft acids bases (HSAB) 2h

Classification, Pearson's concept of hardness and softness, application of HSAB principles – Stability of compounds / complexes, predicting the feasibility of reaction

UNIT - II (Organic Chemistry) 11 h

S5-O-1:Carbohydrates 6 h

Introduction: Classification and nomenclature – classification into mono, oligo and polysacchrides, into pentoses, hexoses *etc*., into aldoses and ketoses.
Monosaccharides:All discussion to be confined to (+) glucose as an example of aldo hexoses and (-) fructose as example of ketohexoses. Chemical properties and structural elucidation: Evidences for straight chain pentahydroxy aldehyde structure (Acetylation, reduction to n- hexane, cyanohydrin formation, reduction of Tollen's and Fehling's reagents and oxidation to gluconic and saccharic acids). Number of optically active, isomers possible for the structure, configuration of glucose based on D-glyceraldehyde as primary standard (No proof for configuration is required). Evidence for cyclic structure of glucose (some negative aldehyde tests and mutarotation). Cyclic structure of glucose: Proposition of cyclic structure (Pyranose structure, anomeric Carbon and anomers). Proof for the ring size (methylation, hydrolysis and oxidation reactions). Different ways of writing pyranose structure (Haworth formula and chair conformational formula). Structure of fructose: Evidence of 2 – ketohexose structure (formation of penta acetate, formation of cyanohydrin its hydrolysis and reduction by HI to give 2-Carboxy-n-

hexane) Same osazone formation from glucose and fructose, Hydrogen bonding in osazones, cyclic structure for fructose (Furanose structure,Haworth formula).
Inter Conversion of Monosaccharides: Aldopentose to aldo hexose – eg: Arabinose to D-glucose, D- mannose (kiliani – Fischer method). Epimers, Epimerisation- Lobry de bruyn van Ekenstein rearrangement. Aldohexose – Aldopentose eg: D-glucose to D-arabinose by Ruff's degradation. Aldohexose(+) (glucose) to ketohexose (–)(fructose) and Ketohexose(Fructose) to aldohexose (Glucose).

S5-O-2Amino acids and proteins5 h

acids into acidic, basic and neutral amino acids with examples. Methods of synthesis: General methods of synthesis of alpha amino acids (specific examples – Glycine, Alanine, valine and Leucene) by following methods: a) From halogenated Carboxylic acid b)Malonic ester synthesis c) strecker's synthesis.Physical properties: Optical activity of naturally occurring amino acids: L – configuration, irrespective of sign of rotation. Zwitter ion structure – salt like character, solubility, melting points, amphoteric character, definition of isoelectric point.
Chemical properties: General reactions due to amino and carboxyl groups – Lactams from gamma and delta amino acids by heating peptide bond (amide linkage). Structure and nomenclature of peptides and proteins, peptide synthesis

Unit-III (Physical Chemistry) 11 h

S5-P-1:Thermodynamics -I 11h

A brief review of - Energy, work and heat units, mechanical equivalent of heat, definition of system, surroundings. I law of thermodynamics statement- various forms mathematical expression. Thermodynamic quantities- extensive properties and intensive properties, state function, path functions energy as a state function, and exact differential. Work of expansion and heat absorbed as path function.
Expression for work of expansion, sign convention problems on I law. Heat changes at constant pressure and heat changes at constant volume. Enthalpy. Heat capacities at constant pressure and constant volume. Derivation Cp-Cv = R.
Isothermal adiabatic processes. Reversible and irreversible processes. Reversible change and maximum work. Derivation of expression for maximum work for isothermal reversible process. Problems.Internal energy of an ideal gas. Joules experiment and Joule-Thompson coefficient.Adiabatic changes in ideal gas derivation of equation, PV^{γ} = constant. P-V curves for isothermal and adiabatic processes.
Heat of a reaction at constant volume and at constant pressure, relation between ΔH and ΔV. Variation of heat of reaction with temperature. Kirchoff's equation and problems. Limitations of I law and need for II law. Statement of II law of thermodynamics. Cyclic process. Heat engine, Carnot's theorem, Carnot's cycle. Derivation of efficiency of heat engine problems. Thermodynamic scale of temperature.

Unit-IV **12 h**

S5-G-1: Proton Magnetic Resonance Spectroscopy 4h

Principles of nuclear magnetic resonance,equivalent and non-equivalent protons, position of signals. Chemical shift, NMR splitting of signals – spin-spin coupling, representation of proton NMR spectrum– Integrations. ^{1}H NMR spectrum of – ethyl bromide, acetaldehyde, 1,1,2-tribromo ethane, ethyl acetate and acetophenone.

S5-G-2: Mass Spectrometry 4 h

Electron Impact Mass: Basic principles,Nitrogen rule, types of ions: Molecular ion, fragment ion and isotopic ions, representation of mass spectrum, types of peaks (molecular ion, fragment and isotopic ion peaks). Determination of molecular weight Mass spectrum of ethyl chloride, ethyl bromide and acetophenone.

S5-G-3: Thermodynamics- II 4 hrs

Entropy: Definition from Carnot's cycle. Entropy as a state function. Entropy as a measure of disorder. Sign of entropy change for spontaneous and non- spontaneous processes&equilibrium processes. Entropy changes in i). Reversible isothermal process, ii). reversible adiabatic process, iii). phase change, iv). reversible change of state of an ideal gas. Problems. Entropy of mixing inert perfect gases.Free energy Gibb's function (G) and Helmholtz's function (A) as thermodynamic quantities. Concept of maximum work and net work ΔG as criteria for spontaneity. Derivation of equation $\Delta G = \Delta H - T\Delta S$. significance of the equation. Gibbs equations and the Maxwell relations. Variation of G with P, V and T.

References :

Unit- I

1. Basic Inorganic Chemistry by F.A.Cotton, G.Wilkinson and Paul.L. Gaus 3rd edn Wiley Publishers 2001.
2. Inorganic Chemistry Principles of structure and reactivity by James E.Huhey, E.A. Keiter and R.L. Keiter 4th edn.
3. Reaction mechanisms, K.Veera Reddy.

Unit- II

1. Text book of organic chemistry by Soni.
2. General Organic chemistry by Sachin Kumar Ghosh.
3. Text book of organic chemistry by Morrison and Boyd.
4. Text book of organic chemistry by Graham Solomons.
5. Text book of organic chemistry by Bruice Yuranis Powla.

Unit III

1. Principles of physical chemistry by Prutton and Marron.
2. Text Book of Physical Chemistry by Soni and Dharmahara..
3. Text Book of Physical Chemistry by Puri,Sharmaand Pattania.
4. Physical Chemistry by Atkins & De Paula, 8th Edition
5. Text Book of Physical Chemistry by K. L. Kapoor.
6. Physical Chemistry through problems by S.K. Dogra.
7. Text Book of Physical Chemistry by R.P. Verma.
8. Elements of Physical Chemistry byLewis Glasstone.
9. Thermodynamics by Rajaram

Unit IV

1. Basic Inorganic Chemistry by F.A.Cotton, G.Wilkinson and Paul.L. Gaus 3rd edn Wiley Publishers 2001.
2. Organic Spectroscopy, William Kemp
3. Principles of physical chemistry by Prutton and Marron.
4. Text Book of Physical Chemistry by Soni and Dharmahara..
5. Text Book of Physical Chemistry by Puri,Sharmaand Pattania.
6. Thermodynamics by Rajaram

Paper VI (Physical Chemistry) (CHE 552) 45hrs (3 h / w)

1. Distribution law

i. Determination of distribution coefficient of iodine between water and carbon Tetrachloride/determination of molecular status and partition coefficient of benzoic acid in Toluene and water.

ii. Determination of distribution coefficient of acetic acid between n-butanol and water.

2. Electrochemistry

i. Determination of cell constant of conductivity cell.

ii. Determination of dissociation constant (K_a) of acetic acid by conductivity measurements.

iii. Determination of solubility and solubility product of $BaSO_4$

2. Colorimetry

i. Verification of Beer's - Lamberts law for KMnO4 and determine the concentration of given solution.

4. Adsorption

i. Adsorption of acetic acid on animal charcoal, verification of Freundlich isotherm.

5. Physical constants

i. Surface tension and viscosity of liquids

Telangana State Council of Higher Education, Govt. of Telangana B.Sc., CBCS Common Core Syllabi for all Universities in Telangana

PROPOSED SCHEME FOR CHOICE BASED CREDIT SYSTEM IN B.Sc., Chemistry from 2019-2020

CODE	COURSE TITLE	COURSE TYPE	HPW	CREDITS
	FIRST YEAR- SEMSTER I			
	Ability Enhancement Compulsory Course AECC-1	ES	2	2
	English	CC-1A	4	4
	Second language	CC-2A	4	4
	Optional I	DSC-1A	4T+3P=7	4+1=5
	Optional II	DSC-2A	4T+3P=7	4+1=5
	Optional III- Chemistry - I	**DSC-3A**	4T } = 7	4 } =5
	Laboratory Course – I (Qualitative Analysis)		3P	1
	Total Credits		31	25
	FIRST YEAR- SEMSTER II			
BS 201	Ability Enhancement Compulsory Course AECC-2	BCS	2	2
BS 202	English	CC-1B	4	4
BS 203	Second language	CC-2B	4	4
BS 204	Optional I	DSC-1B	4T+3P=7	4+1=5
BS 205	Optional II	DSC-2B	4T+3P=7	4+1=5
BS 206	**Optional III- Chemistry - II**	**DSC-3B**	4T } = 7	4 } =5
	Laboratory Course - II (Quantitative Analysis)		3P	1
	Total Credits		31	25
	SECOND YEAR- SEMSTER III			
BS 301	Rules in Chemistry Laboratory and Lab Reagents	**SEC-1**	**2**	**2**
	Remedial methods for pollution, drinking water and Soil fertility	**SEC-2**	**2**	**2**
BS 302	English	CC-1C	3	3
BS 303	Second language	CC-2C	3	3
BS 304	Optional I	DSC-1C	4T+3P=7	4+1=5
BS 305	Optional II	DSC-2C	4T+3P=7	4+1=5
BS 306	**Optional III- Chemistry - III**	**DSC-3C**	4T } = 7	4 } =5
	Laboratory Course - III (Synthesis of Organic compounds)		3P	1
	Total Credits		31	25
	SECOND YEAR- SEMSTER IV			
BS 401	Materials and their Applications	**SEC-3**	**2**	**2**
	Chemistry of Cosmetics and Food Processing	**SEC-4**	**2**	**2**
BS 402	English	CC-1D	3	3
BS 403	Second language	CC-2D	3	3
BS 404	Optional I	DSC-1D	4T+3P=7	4+1=5
BS 405	Optional II	DSC-2D	4T+3P=7	4+1=5
BS 406	**Optional III- Chemistry - IV**	**DSC-3D**	4T } = 7	4 } = 5
	Laboratory Course - IV (Qualitative and Spectral Analysis of Organic Compounds)		3P	1
	Total Credits		31	25

*AECC: Ability Enhancement Compulsory Course, SEC: Skill Enhancement Course, DSC: Discipline Specific Course, GE: Generic Elective, ES: Environmental Science , BCS : Basic computer skills.

(Prof Ch. Abraham Lincoln) BOS (O.U) (Dr. M. NOORJAHAN) (Dr. G. Brahmeshwari) BOS KU Wgl Dr. G. BALAKISHAN CBOS, TU (Dr. G. Hanmanthu) K.U. Wgl DR. M. Sarasija SU Karimnagar

Ch. Sarala, Palamuru Univ. HOD, Chemistry Dr. P. Veera Somaiah

Telangana State Council of Higher Education, Govt. of Telangana B.Sc, CBCS Common Core Syllabi for all Universities in Telangana

PROPOSED SCHEME FOR CHOICE BASED CREDIT SYSTEM IN B.Sc., Chemistry (for the batch admitted in 2019-2020)

THIRD YEAR- SEMESTER V				
CODE	**COURSE TITLE**	**COURSE TYPE**	**HPW**	**CREDITS**
BS 501	**Chemistry of Cosmetics, Food Processing, Drugs and Pharmaceuticals**	**GE**	4	4
BS 502	English	CC-1E	3	3
BS 503	Second language	CC-2E	3	3
BS 504	Optional- I A/B	DSE -1E	------	4+1=5
BS 505	Optional- II A/B	DSE -2E	------	4+1=5
BS 506	Optional- III A/B **A. Spectroscopy and Chromatography** **(or)** **B. Metallurgy, Dyes and Catalysis**	**DSE -3E**	**4T** } = 7	**4** } = 5
	Laboratory Course -V **Experiments in Physical Chemistry-I**		**3P** }	**1** }
	TOTAL			**25**
THIRD YEAR- SEMESTER VI				
BS 601	**Project in Chemistry/ Advanced Chemistry**			4
BS 602	English	CC-1F	3	3
BS 603	Second language	CC-2F	3	3
BS 604	Optional- I A/B	DSE-1F	--------	4+1=5
BS 605	Optional- II A/B	DSE -2F	--------	4+1=5
BS 606	Optional- III A/B **A. Medicinal Chemistry** **(or)** **B. Agricultural and Fuel Chemistry**	DSE -3F	**4T** } = 7	**4** } = 5
	Laboratory Course -VI **Experiments in Physical Chemistry-II**		**3P** }	**1** }
	TOTAL			**25**
	TOTAL Credits			**150**

PALAMURU UNIVERSITY

SCHEME OF INSTRUCTION AND SYLLABUS

B.Sc. MATHS

UNDER CBCS SCHEME

(FROM THE ACADEMIC YEAR 2017-18)

B.Sc. Course Structure Template

B.Sc. PROGRAMME

FIRST YEAR SEMESTER-I				
Code	Course Title	Course Type	HPW	Credits
BS101	Communication	AECC-1	2	2
BS102	English	CC-1A	5	5
BS103	Second Language	CC –2A	5	5
BS104	Optional - I **Differential Calculus**	DSC-1A	4 T + 2P = 6	4+1=5
BS105	Optional - II	DSC-2A	4 T + 2P = 6	4+1=5
BS106	Optional – III	DSC-3A	4 T + 2P = 6	4+1=5
			30	27
SEMESTER-II				
BS201	Environmental Studies	AECC-2	2	2
BS202	English	CC-1B	5	5
BS203	Second Language	CC –2B	5	5
BS204	Optional - I **Differential Equations**	DSC-1B	4 T + 2P = 6	4+1=5
BS205	Optional - II	DSC-2B	4 T + 2P = 6	4+1=5
BS206	Optional – III	DSC-3B	4 T + 2P = 6	4+1=5
			30	27

B.Sc. PROGRAMME

SECOND YEAR SEMESTER-III				
BS301	A/B **Logic& Sets/Theory of Equations**	SEC-1	2	2
BS302	English	CC-1C	5	5
BS303	Second Language	CC-2C	5	5
BS304	Optional - I **Real Analysis**	DSC-1C	4 T + 2P = 6	4+1=5
BS305	Optional - II	DSC-2C	4 T + 2P = 6	4+1=5
BS306	Optional – III	DSC-3C	4 T + 2P = 6	4+1=5
			30	27
SEMESTER-IV				
BS401	C/D **Transportation & Game Theory/ Number Theory**	SEC-2	2	2
BS402	English	CC -1D	5	5
BS403	Second Language	CC-2D	5	5
BS404	Optional - I **Algebra**	DSC-1D	4 T + 2P = 6	4+1=5
BS405	Optional - II	DSC-2D	4 T + 2P = 6	4+1=5
BS406	Optional – III	DSC-3D	4 T + 2P = 6	4+1=5
			30	27

B.Sc. Course Structure Template

B.Sc. PROGRAMME

THIRD YEAR SEMESTER-V				
Code	Course Title	Course Type	HPW	Credits
BS501	E/F Probability and Statistics/Mathematical Modelling	SEC-3	2	2
BS502	Lattice Theory	GE-1	2 T	2
BS503	Optional - I Linear Algebra	DSC-1E	3 T + 2P = 5	3+1=4
BS504	Optional –II	DSC-2E	3 T + 2P = 5	3+1=4
BS505	Optional –III	DSC-3E	3 T + 2P = 5	3+1=4
BS506	Optional –I A/B/C Slid Geometry/ Integral Calculus	DSE- 1E	3 T + 2P = 5	3+1=4
BS507	Optional – II A/B/C	DSE-2E	3 T + 2P = 5	3+1=4
BS508	Optional – III A/B/C	DSE-3E	3 T + 2P = 5	3+1=4
			34	28
SEMESTER-VI				
BS601	G/H Boolean Algebra/Graph Theory	SEC-4	2	2
BS602	Elements of Number Theory	GE-2	2 T	2
BS603	Optional - I Numerical Analysis	DSC-1F	3 T + 2P = 5	3+1=4
BS604	Optional –II	DSC-2F	3 T + 2P = 5	3+1=4
BS605	Optional –III	DSC-3F	3 T + 2P = 5	3+1=4
BS606	Optional –I A/B/C Complex Analysis/ Vector Calculus	DSE- 1F	3 T + 2P = 5	3+1=4
BS607	Optional – II A/B/C	DSE-2F	3 T + 2P = 5	3+1=4
BS608	Optional – III A/B/C	DSE-3F	3 T + 2P = 5	3+1=4
			34	28
	TOTAL Credits			164

B.Sc. PROGRAMME

SUMMARY OF CREDITS

Sl. No.	Course Category	No. of Courses	Credits Per Course	Credits
1	AECC	2	2	4
2	SEC	4	2	8
3	CC Language DSC DSC	8 12 6	5 5 4	40 60 24
4	DSE	6	4	24
5	GE	2	2	4
	TOTAL	**40**		**164**
	Optionals Total	24		108

Telangana State Council of Higher Education

Government of Telangana

Mathematics Course Structure

(B.Sc. Common Core Syllabus for All Universities of Telangana State for the Students Admitted from the Academic Year 2019-2020 Batch onwards)

Telangana State Council of Higher Education
B.A/B.Sc. Mathematics Course Structure

(Common Core Syllabus for All Universities of Telangana State for the Students Admitted from the Academic Year 2019-20 Batch onwards)

Paper	Semester	Subject	Hours/ per week	Hours/per week		Max. Marks	Credits
				Theory	*Tutorials		
DSC - I	I	Differential & Integral Calculus	6	5	1	100	5
DSC - II	II	Differential Equations	6	5	1	100	5
DSC - III	III	Real Analysis	6	5	1	100	5
DSC - IV	IV	Algebra	6	5	1	100	5
DSC - V	V	Linear Algebra	6	5	1	100	5
DSE – VI(A)	VI	(A) Numerical Analysis	6	5	1	100	5
DSE – VI(B)	VI	(B) Integral Transforms	6	5	1	100	5
DSE – VI(C)	VI	(C) Analytical Solid Geometry	6	5	1	100	5
SEC-I	III	Theory of Equations	2	2	-	50	2
SEC-II	III	Logic & Sets	2	2	-	50	2
SEC-III	IV	Number Theory	2	2	-	50	2
SEC-IV	IV	Vector Calculus	2	2	-	50	2
Generic Elective	V-A*	1. Basic Mathematics **or** 2. Mathematics of Finance & Insurance	4	4	-	100	4
Project/ Optional	VI*	Mathematical Modelling	4	4	-	100	4

***Tutorials:** Problems solving session for each 20 student's one batch.

PROPOSED SYLLABUS (2019-20) for B.Sc Microbiology

Code: BS 104, DSC

B.Sc I year: I Semester Paper-I Theory

Paper Title: Introductory Microbiology **4HPW-credits: 4**

1st Credit: Introduction

Microbiology: Definition and scope. History of microbiology: Contribution of Antony Van Leeuwenhoek, Edward Jenner, Louis Pasteur, Robert Koch, Iwanoswky, Beijernik, Winogradsky and Alexander Fleming.

Microbiological Techniques: Sterilization and Disinfection - Physical methods (dry and moist heat), filtration, radiation. Chemical methods (alcohols, phenols, aldehydes, fumigants)

2nd Credit: Microscopy and Staining methods

Principles and applications of Microscopy-Bright field, Dark field, Phase-contrast, Fluorescent and Electron microscopy (SEM and TEM). Ocular and stage micrometry.

Principles and types of stains-Simple stain, Differential stain, Negative stain.

Structural stain: spore, capsule, flagella

3rd Credit: Classification, Isolation and Identification of Microorganisms

Classification of living organisms; Haeckel, Whittaker and Carl Woese systems. Differentiation of prokaryotes and eukaryotes. Classification and identification of bacteria as per the second edition of Bergey's manual of systematic bacteriology. Classification of protozoa, microalgae and fungi.

Growth media – synthetic, semi- synthetic, selective, enrichment and differential media. Isolation of Pure culture techniques - Enrichment culturing, Dilution plating, streak plate, spread plate, Micromanipulator. Preservation of Microbial cultures – Sub culturing, overlaying cultures with minerals oils, sand cultures, lyophilization, storage at low temperature.

4th Credit: Structure and General Characteristics of Microorganisms

General characteristics of prokaryotes: Bacteria, Archaea bacteria. Rickettsia, Mycoplasma, Cyanobacteria and Actinomycetes. Ultra structure of bacterial cell: cell wall, cell membrane, ribosomes, nucleoid, capsule, flagella, fimbriae, endospores & storage granules.

General characteristics of eukaryotes: protozoa, microalgae and fungi.

General characteristics and classification of virus. Morphology and structure of lambda bacteriophage (lytic and lysogeny), TMV and HIV.

References:

1. Michael J. Pelczar, Jr. E.C.S.Chan, Noel R. Krieg Microbiology Tata McGraw- Hill Publisher.
2. Prescott, M.J., Harly, J.P. and Klein Microbiology 5th Edition, WCB Mc GrawHill, New York.
3. Madigan, M.T., Martinkl, J.M and Parker,j. Broch Biology of Microorganism, 9th Edition, MacMillan Press, England.
4. Dube, R.C. and Maheshwari, D.K. General Microbiology S Chand, New Delhi.

I-Semester Practical Paper-I

Introductory Microbiology 2HPW-Credits-1

5th Credit: Practicals

1. Compound microscope and its handling.
2. Sterilization techniques: Autoclave, Hot air oven and filtration
3. Calibration of microscope by ocular , stage micrometer and measurement of bacterial and fungal spores.
4. Simple and differential staining (Gram staining), Spore staining, capsule staining and flagellar staining.
5. Microscopic observation of bacteria (Gram positive bacilli and cocci, Gram negative bacilli), cyanobacteria (Nostoc, Spirulina), fungi (Saccharomyces, Rhizopus, Aspergillus, Penicillium)
6. Bacterial motility: hanging drop method
7. Preparation of culture media: Solid/Liquid.
8. Isolation of bacteria by serial dilution and pure cultures methods (streak, spread and pour plate techniques)
9. Preservation of microbial cultures- Slant, Stab, mineral oil overlay and glycerol stocks
10. Bacterial biochemical identification-IMViC test, carbohydrate fermentation test

References:

1. Experiments in Microbiology by K.R. Aneja.
2. Gopal Reddy.M., Reddy. M.N., Sai Gopal, DVR and Mallaiah K.V. Laboratory Experiments in Microbiology.
3. Dubey, R.C. and Maheshwari, D.K. Practical Microbiology, S. Chand and Co New Delhi.
4. Alcamo, I.E. Laboratory Fundamentals of Microbiology. Jones and Bartlett Publishers, USA.

B.Sc I year: II Semester Paper-II Theory

Code: BS 204, DSC

Title: Microbial Physiology and Biochemistry **4HPW-credits-4**

1st Credit: Microbial nutrition and growth

Microbial Nutrition, Uptake of nutrients by cell. Nutritional groups of microorganisms – Autotrophs, Heterotrophs, Mixotrophs, Methylotrophs. Photosynthetic apparatus in prokaryotes.

Bacterial growth – Different phases of growth, factors influencing bacterial growth. Synchronous, Continuous, Biphasic Growth. Methods for measuring microbial growth – Direct Microscopic, Viable count, Turbidometry.

2nd Credit: Microbial metabolism

Bacterial photosynthesis: Outline of oxygenic and anoxygenic photosynthesis in bacteria. Microbial respiration – Aerobic: Glycolysis, HMP Pathway, ED Pathway , TCA Cycle and Anaplerotic reactions, Electron transport, Oxidative and Substrate level phosphorylation. Glyoxylate cycle, Anaerobic respiration (Nitrate and Sulphate).

3rd Credit: Biomolecules

Classification and characteristics of carbohydrates (Monosaccharides, disaccharides and polysaccharides). General characteristics of amino acids and proteins, fatty acids (saturated and unsaturated) and lipids (sphingo lipids, sterols and phospholipids). Structure of nitrogenous bases, nucleotides and nucleic acids.

Properties and Classification of enzymes. Biocatalysis – Induced fit and Lock & Key Model, Coenzymes, Co-factors. Factors effecting enzyme activity.

4th Credit: Biochemical techniques

Hydrogen ion concentration in biological fluids. pH measurement. Types of buffers and their uses in biological reactions. Principles and application of colorimetry and chromatography (paper and thin layer). Principles and applications of Electrophoretic techniques- Agarose gel electrophoresis and SDS PAGE

References:

1. Michael J. Pelczar, Jr. E.C.S.Chan, Noel R. Krieg Microbiology Tata McGraw- Hill Publisher.
2. Prescott, M.J., Harly, J.P. and Klein Microbiology 5th Edition, WCB Mc GrawHill, New York.
3. Madigan, M.T., Martinkl, J.M and Parker,j. Broch Biology of Microorganism, 9th Edition, MacMillan Press, England.
4. Dube, R.C. and Maheshwari, D.K. General Microbiology S Chand, New Delhi.
5. Voet, D Biochemistry WCB. Mc GrawHill, Iowa.

6. N.J. Dimmock, A.J Easton, and K.N. Leppard. Introduction to Modern Virology. Blackwell Publishing.

II-Semester Practical Paper – II

Microbial Physiology and Biochemistry 2 HPW- CREDITS-1

5th Credit: Practicals

1. Setting up of Winogradsky's column
2. Cultivation of photosynthetic bacteria
3. Determination of viable count of bacteria
4. Turbidometric measurement of bacterial growth curve
5. Factors affecting bacterial growth – pH, temperature, salts
6. Qualitative tests for carbohydrates and amino acids
7. Determination of pH
8. Preparation of Buffers
9. Colorimetry - Principles, laws, determination of absorption maxima
10. Paper chromatography-separation of sugars/amino acids

References:

1. Experiments in Microbiology by K.R. Aneja.
2. Gopal Reddy.M., Reddy. M.N., Sai Gopal, DVR and Mallaiah K.V. Laboratory Experiments in Microbiology.
3. Dubey, R.C. and Maheshwari, D.K. Practical Microbiology, S. Chand and Co New Delhi.
4. Alcamo, I.E. Laboratory Fundamentals of Microbiology. Jones and Bartlett Publishers, USA.
5. Mahy, B.W.J. and Kangro, H.O. Virology – Methods Manual Academic Press, USA.
6. Burleson et al Virology – A Laboratory Manual. Academic Press, USA.

Proposed scheme for B.Sc Microbiology program under choice based credit system (CBCS)

B.Sc Microbiology **Code:**

B.Sc I year, SEMESTER-I

THEORY

Title: INTRODUCTORY MICROBIOLOGY **Credits-4, HPW-4**

Model Question Paper

I. Short Answer type Questions (Answer any 8 of the following) **8X4=32**

1. Unit-I
2. Unit-I
3. Unit-I
4. Unit-II
5. Unit-II
6. Unit-II
7. Unit-III
8. Unit-III
9. Unit-III
10. Unit-IV
11. Unit-IV
12. Unit-IV

II. Essay type Questions (Answer all of the following) **12X4=48**

13. a) Unit-I
    or
    b) Unit-I

14. a) Unit-II
    or
    b) Unit-II

15. a) Unit-III
    or
    b) Unit-III
16. a) Unit-IV
    or
    b) Unit-IV

Telangana State Council of Higher Education, Govt.of Telangana
(Palamuru University)
PROPOSED SCHEME FOR CHOICE BASED CREDIT SYSTEM IN B.Sc. MICROBIOLOGY (2020-21)

Code	Course Title	Course Type	HPW	Credits
FIRST YEAR-SEMESTER-1				
BS	AEC-1			2
BS	English			4
BS	Second Language			4
BS	**General Microbiology**	DSC-1A	4+2	5
BS	Optional-II			5
BS	Optional-III			5
SEMESTER-2				
BS	AEC-2			2
BS	English			4
BS	Second Language			4
BS	**Microbial Diversity**	DSC-1B	4+2	5
BS	Optional-II			5
BS	Optional-III			5
SECOND YEAR-SEMESTER-3				
BS	**Haematology**	SEC-1	2	2
BS	**UGC Given**	SEC-2		2
BS	English			3
BS	Second Language			3
BS	**Food & Environmental Microbiology**	DSC-1C	4+2	5
BS	Optional-II			5
BS	Optional-III			5
SEMESTER-4				
BS	**Mushroom Cultivation**	SEC-3	2	2
	UGC Given	SEC-4		2
	English			3
BS	Second Language			3
BS	**Medical Microbiology & Immunology**	DSC-1D	4+2	5
BS	Optional-II			5
BS	Optional-III			5
THIRD YEAR-SEMESTER-5				
	English			3
	Second language			3
BS	**Microbiology and Human Health**	GE	4	4
BS	**1A.Molecular Biology & Microbial Genetics or 1B. Microbial Omics**	DSE-I	3+2	5
BS	Optional-II			5
BS	Optional-III			5

SEMESTER-6				
BS	English			3
BS	Second language			3
BS	**2.A Industrial Microbiology** **2.B Pharmaceutical Microbiology**	DSE-2	4+2	5
BS	**PROJECT WORK / Applied Microbiology**		3+2	4
BS	Optional-II-A/B/C			5
BS	Optional-III-A/B/C			5
Total				150

2

Department Of Physics

Palamuru University

Scheme of Instruction and Syllabus

B.Sc Physics

Under CBCS scheme

(from the academic year 2016)

B.Sc. PHYSICS SYLLABUS UNDER CBCS SCHEME
SCHEME OF INSTRUCTION

Semester	Paper [Theory and Practical]	Instructions Hrs/week	Marks	Credits
I sem	Paper – I : Mechanics	4	100	4
	Practicals – I : Mechanics	3	50	1
II sem	Paper – II: Waves and Oscillations	4	100	4
	Practicals – II : Waves and Oscillations	3	50	1
III sem	Paper – III : Thermodynamics	4	100	4
	Practicals – III : Thermodynamics	3	50	1
IV sem	Paper – IV : Optics	4	100	4
	Practicals – IV :Optics	3	50	1
V sem	Paper –V : Electromagnetism	3	100	3
	Practicals – V: Electromagnetism	3	50	1
	Paper – VI : Elective – I Solid state physics/ Quantum Mechanics and Applications	3	100	3
	Practicals – VI : Elective – I Practical Solid state physics/ Quantum Mechanics and Applications	3	50	1
VI sem	Paper – VII : Modern Physics	3	100	3
	Practical – VII : Modern Physics Lab	3	50	1
	Paper – VIII : Elective – II Basic Electronics/ Physics of Semiconductor Devices	3	100	3
	Practicals – VIII : Elective – II Practical Basic Electronics/ Physics of Semiconductor Devices	3	50	1

Total Credits 36

SCHEME OF INSTRUCTION :: B.Sc. PHYSICS SYLLABUS UNDER CBCS SCHEME
Revised and effective from academic year 2019-2020

Semester	Paper [Theory and Practical]	Instructions Hrs/week	Marks	Credits
I	Paper – I : Mechanics	4	100	4
	Practicals – I : Mechanics	3	50	1
II	Paper – II: Thermal Physics	4	100	4
	Practicals – II : Thermal Physics	3	50	1
III	Paper – III : Electromagnetic Theory	4	100	4
	Practicals – III : Electricity &Magnetism	3	50	1
IV	Paper – IV : Optics	4	100	4
	Practicals – IV :Optics	3	50	1
V	Paper –V : A. Modern Physics B. Computational Physics using MATLAB	4	100	4
	Practicals – V: A. Modern Physics B. Computational Physics using MATLAB	3	50	1
VI	Paper – VI : A. Electronics B. Applied Optics	4	100	4
	Practicals VI: A. Electronics B. Applied Optics	3	50	1

Total credits: 30

Skill enhancement courses

1. Measurements and Errors
2. Electrical circuits and Networking
3. Basic Instrumentation
4. Biomedical Instrumentation
5. Digital Electronics

Generic Elective:

1. Renewable Energy & Harvesting

Project work /Optionals (Nano science)

~~B.Sc. (Physics)Semester I-Theory Syllabus~~ ~~36 hrs~~

1 2 3

4 15.6.19 G. PRASAD 5 6 15.6.19

7 15.6.19 Dr D. SURESH KUMAR 8 15.6.19 N. MOHAN BABU 9 15.6.19 Dr. L. Hanuma BOS, TU

Zoology

B.Sc. (I - IV Semesters) Syllabus (CBCS)

(w.e.f. 2016 - 2017)

Faculty of Science

PALAMURU UNIVERSITY

Mahabubnagar - 509 001, Telangana

2016

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS

B.Sc. I Year
I - SEMESTER
Discipline Specific Course, Paper – I
[Code: BS105; Course Type DSC 2A]
Animal Diversity – Invertebrates

Periods: 60 Max. Marks: 40

UNIT – I (15 Periods)

1.1 Brief history of Invertebrates
- 1.1.1 Kingdom Animalia
- 1.1.2 Brief history of Invertebrates

1.2 Protozoa
- 1.2.1 General characters
- 1.2.2 Classification up to classes with examples
- 1.2.3 Type study - *Elphidium*
- 1.2.4 Life cycle of *Plasmodium.*
- 1.2.5 Locomotion, Reproduction and Diseases

1.3 Porifera
- 1.3.1 General characters
- 1.3.2 Classification of Porifera up to classes with examples
- 1.3.3 Type study - *Sycon*
- 1.3.4 Canal system in sponges and Spicules.

UNIT – II (15 Periods)

2.1. Cnidaria
- 2.1.1 General characters
- 2.1.2 Classification of Cnidaria up to classes with examples
- 2.1.3 Type study - *Obelia*
- 2.1.4 Polymorphism in hydrozoa
- 2.1.5 Corals and coral reef formation

2.2 Platyhelminthes
- 2.1.1 General characters
- 2.1.2 Classification of Platyhelminthes up to classes with examples
- 2.1.3 Type study- *Schistosoma*

2.3 Nemathelminthes
- 2.3.1 General characters
- 2.3.2 Classification of Nemathelminthes up to classes with examples
- 2.3.3 Type study - *Dracunculus*
- 2.3.4 Parasitic Adaptations in Helminthes

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS

UNIT – III (15 Periods)

3.1 Annelida

- 3.1.1 General characters
- 3.1.2 Classification of Annelida up to classes with examples
- 3.1.3 Type study - *Hirudinaria granulosa.*
- 3.1.4 Evolutionary significance of Coelome and Coelomoducts and metamerism

3.2 Arthropoda

- 3.2.1 General characters
- 3.2.2 Classification of Arthropoda up to classes with examples
- 3.2.3 Type study - Prawn
- 3.2.4 Mouth parts of Insects
- 3.2.5 Insect metamorphosis
- 3.2.6 *Peripatus* - Structure and affinities

UNIT – IV (15 Periods)

4.1 Mollusca

- 4.1.1 General characters
- 4.1.2 Classification of Mollusca up to classes with examples
- 4.1.3 Type study - *Pila*
- 4.1.4 Pearl formation
- 4.1.5 Torsion and detorsion in gastropods

4.2 Echinodermata

- 4.2.1 General characters
- 4.2.2 Classification of Echinodermata up to classes with examples
- 4.2.3 Water vascular system in star fish
- 4.2.4 Echinoderm larvae and their significance

4.3 Hemichordata

- 4.3.1 General characters
- 4.3.2 Classification of Hemichordata up to classes with examples
- 4.3.3 *Balanoglossus* - Structure and affinities

Suggested Readings

1. L.H. Hyman '*The Invertebrates' Vol I, II and V*. – M.C. Graw Hill Company Ltd.
2. Kotpal, R.L. 1988 - 1992 Protozoa, Porifera, Coelenterata, Helminthes, Arthropoda, Mollusca, Echinodermata. Rastogi Publications, Meerut.
3. E.L. Jordan and P.S. Verma '*Invertebrate Zoology*' S. Chand and Company.
4. R.D. Barnes '*Invertebrate Zoology*' by: W.B. Saunders CO., 1986.
5. Barrington. E.J.W., '*Invertebrate structure and Function*' by ELBS.
6 P.S. Dhami and J.K. Dhami. Invertebrate Zoology. S. Chand and Co. New Delhi.
7. Parker, T.J. and Haswell '*A text book of Zoology*' by, W.A., Mac Millan Co. London.
8. Barnes, R.D. (1982). *Invertebrate Zoology,* V Edition"

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS

B.Sc. I Year
ZOOLOGY PRACTICAL SYLLABUS FOR I SEMESTER
Discipline Specific Course, Paper – I
[Code: BS105; Course Type DSC 2A]
ANIMAL DIVERSITY - INVERTEBRATES

Periods: 30 Max. Marks: 40

1. Study of museum slides / specimens / models (Classification of animals up to orders)
   - i. Protozoa: Amoeba, *Paramoecium*, *Paramoecium Binary fission and Conjugation*, *Vorticella*, *Entamoeba histolytica*, *Plasmodium vivax*
   - ii. Porifera: *Sycon*, *Spongilla*, *Euspongia*, *Sycon* - T.S & L.S, Spicules, Gemmule
   - iii.
   - iv. Coelenterata: *Obelia – Colony & Medusa*, *Aurelia*, *Physalia*, *Velella*, *Corallium*, *Gorgonia*, *Pennatula*
   - v.
   - vi. Platyhelminthes: *Planaria*, *Fasciola hepatica*, *Fasciola* larval forms – Miracidium, Redia, Cercaria, *Echinococcus granulosus*, *Taenia solium*, *Schistosoma haematobium*
   - vii.
   - viii. Nemathelminthes: *Ascaris(Male & Female)*, *Drancunculus*, *Ancylostoma*, *Wuchereria*
   - ix.
   - x. Annelida: *Nereis*, *Aphrodite*, *Chaetopteurs*, *Hirudinaria*, Trochophore larva
   - xi.
   - xii. Arthropoda: Cancer, Palaemon, Scorpion, *Scolopendra*, *Sacculina*, *Limulus*, *Peripatus*, Larvae - Nauplius, Mysis, Zoea, Mouth parts of male & female *Anopheles* and *Culex*, Mouthparts of Housefly and Butterfly.
   - xiii.
   - xiv. Mollusca: *Chiton*, *Pila*, *Unio*, *Pteredo*, *Murex*, *Sepia*, *Loligo*, *Octopus*, *Nautilus*, Glochidium larva
   - xv.
   - xvi. Echinodermata: *Asterias*, *Ophiothrix*, *Echinus*, *Clypeaster*, *Cucumaria*, *Antedon*, Bipinnaria larva
   - xvii.
   - xviii. Hemichordata: *Balanoglossus*, Tornaria larva
   - xix.
2. Dissections:

   Prawn: Appendages, Digestive system, Nervous system, Mounting of Statocyst
   Insect Mouth Parts
3. Laboratory Record work shall be submitted at the time of practical examination
4. An "Animal album" containing photographs, cut outs, with appropriate write up about the above mentioned taxa. Different taxa/ topics may be given to different sets of students for this purpose.
5. Computer aided techniques should be adopted – show virtual dissections

Suggested manuals:

1. Practical Zoology- Invertebrates S.S. Lal
2. Practical Zoology - Invertebrates P.S. Verma
3. Practical Zoology - Invertebrates K.P. Kurl

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS

B.Sc. I Year
ZOOLOGY PRACTICAL SYLLABUS FOR I SEMESTER
Discipline Specific Course, Paper – I
[Code: BS105; Course Type DSC 2A]
ANIMAL DIVERSITY - INVERTEBRATES

Time: 2 Hrs. Max. Marks: 40

1. Identification, labeled diagram and salient features of spots:	18
(7 Museum specimens + 2 slides)	
2. Dissection (one) (Diagram -02 + Dissection & Display-05)	07
3. Field Visit & Note Book	04
4. Project Work	03
5. Certified practical record	03
6. Animal Album	03
7. Viva voce	02

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS

B.Sc. I Year
II - SEMESTER
Discipline Specific Course, Paper – II
[Code: BS205; Course Type DSC 2B]
Ecology, Zoogeography and Animal Behavior

Periods: 60 Max. Marks: 40

UNIT – I (15Periods)

1.1 Ecology - I

1.1.1 Ecosystem structure and functions.
1.1.2 Types of Ecosystems –Aquatic and Terrestrial.
1.1.3 Biogeochemical cycles - Nitrogen, Carbon, Phosphorus and Water.
1.1.4 Energy flow in ecosystem.
1.1.5 Food chain, food web and ecological pyramids.
1.1.6 Animal Associations - Mutualism, commensalism, parasitism, competition, predation.

UNIT – II (15 Periods)

2.1 Ecology – II

2.1.1 Concept of Species, Population dynamics and Growth curves.
2.1.2 Community Structure and dynamics and Ecological Succession.
2.1.3 Ecological Adaptations.
2.1.4 Environmental Pollution – Sources, Effect and Control measures of Air, Water, Soil and Noise pollution,
2.1.5 Wildlife conservation - National parks and Sanctuaries of India, Endangered species.
2.1.6. Biodiversity and hotspots of Biodiversity in India.

UNIT – III (15 Periods)

3.1 Zoogeography

3.1.1 Zoogeographical regions – Palaearctic, Nearctic, Neotropical, Oriental, Australian and Ethiopian regions - their Climatic and faunal peculiarities
3.1.2 Wallace line, Discontinuous distribution
3.1.3. Continental Drift

UNIT – IV (15 Periods)

4.1 Animal Behaviour

4.1.1 Types of Behaviour- Innate and Acquired, Instinctive and Motivated behaviour
4.1.2 Taxes, Reflexes, Tropisms
4.1.3 Physiology and phylogeny of learning, trial and error learning, Imprinting, habituation, Classical conditioning, Instrumental conditioning
4.1.5 Social behavior, Communication, Pheromones

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS

4.1.6 Biological rhythms, Biological clocks, Circadian rhythms

Suggested Readings

M.P.Arora, *'Ecology'* Himalaya Publishing company.
P.D.Sharma, *Environmental Biology'*.
P.R.Trivedi and Gurdeep Raj. *'Environmental Ecology'*
Buddhadev Sarma and Tej Kumar, *Indian Wildlife Threats and Preservation*
Chapman J.L. and Reiss M.J, *Ecology Principles and Applications,* Second Ed., Cambridge University Press, London.
Benny Joseph, *Environmental Studies*, TATA MGraw Hill Com., New Delhi.
Eugene P. Odum, *Fundamentals of Ecology* Third Ed., NataraJ Publishers, Dehradun.
Veer Bala Rastogi, "Ecology and Animal Distribution"
P.K. Gupta, "Text Book of Ecology and Environment"
Bhatnagar and Bansal, "Ecology and Wildlife biology
Dasmann, "Wild life Biology"
Reena Mathur, "Animal Behaviour"
Alocock, "Animal Behaviour- an Evolutionary Approach

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS

B.Sc. I Year
B.Sc. PRACTICAL SYLLABUS FOR II SEMESTER
Discipline Specific Course, Paper – II
[Code: BS205; Course Type DSC 2B]
Ecology, Zoogeography and Animal Behavior

Periods: 30 Max. Marks: 40

1. Determination of pH of Soil and Water
2. Estimation of salinity (chlorides) of water in given samples.
3. Estimation of Carbonates and bicarbonates in the given water samples.
4. Estimation of dissolved oxygen of pond water, sewage water and effluents.
5. Identification of Zooplankton from a nearby water body.
6. Study of Pond Ecosystem / local polluted site - Report submission
7. Study of at least 3 endangered or threatened wild animals of India through photographs / specimens / models
8. Field visit to Zoo Park to study the management, behavior and enumeration of wild animals.
9. Identification of Zoogeographical realms from the Map and identify specific fauna of respective regions.
10. Observe the response of invertebrates in different lightening conditions

Computer aided techniques should be adopted as per UGC guide lines.

Suggested manuals

1. Robert Desharnais,Jeffrey Bell, 'Ecology Student Lab Manual, Biology Labs'
2. Darrell S Vodopich, 'Ecology Lab Manual'

B.Sc. ZOOLOGY SYLLABUS UNDER CBS

B.Sc. II Year
III - SEMESTER
Core Paper – III
Animal Diversity- Vertebrates and Developmental Biology

Periods: 60 Max. Marks: 80

UNIT – I (15 Periods)

1.1. Urochordata, Cephalochordata, Cyclostomata
- 1.1.1. Salient features of Urochordata
- 1.1.2. Retrogressive metamorphosis and its significance in Urochordata
- 1.1.3. Salient features and affinities of Cephalochordata
- 1.1.4. General characters of Cyclostomata
- 1.1.5. Comparison of the *Petromyzon* and *Myxine*
- 1.1.6. General characters and classification of Chordata upto orders with examples.

1.2. Pisces
- 1.2.1. General characters of Fishes
- 1.2.2. Classification of fishes up to order level with examples
- 1.2.3. *Scoliodon* – Respiratory, Circulatory and Nervous system.
- 1.2.4. Types of Scales and types of Fins

UNIT – II (15 Periods)

2.1. Amphibia
- 2.1.1. General characters of Amphibians
- 2.1.2. Classification of Amphibians up to orders with examples.
- 2.1.3. *Rana tigrina* - Respiratory, Circulatory and Nervous system.
- 2.1.4. Parental care in amphibian; neoteny and paedogenesis.

2.2 Reptilia
- 2.2.1. General characters of Reptilia
- 2.2.2. Classification of Reptilia up to orders with examples
- 2.2.3. *Calotes* – Respiratory system, Circulatory and Nervous system.
- 2.2.4. Temporal fosse in reptiles and its evolutionary importance
- 2.2.5. Distinguished characters of Poisonous and Non poisonous snakes.
- 2.2.6. Rhynchocephalia.

UNIT – III (15 Periods)

3.1. Aves
- 3.1.1. General characters of Aves
- 3.1.2. Classification of Aves up to orders with examples.
- 3.1.3. *Columba livia* -, Digestive system, Circulatory systems, Respiratory system and Nervous system.
- 3.1.4. Migration in Birds
- 3.1.5. Flight adaptation in Birds

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS

3.2. Mammalia

3.2.1. General characters of Mammalia
3.2.2. Classification of Mammalia up to orders with examples
3.2.3. Rabbit –Digestive, Respiratory, Circulatory and Nervous system.
3.2.4. Dentition in mammals.
3.2.5. Aquatic adaptations in Mammals.

UNIT – IV (15 Periods)

4.1 Developmental Biology and Embryology

4.1.1 Gametogenesis (Spermatogenesis and Oogenesis)
4.1.2 Fertilization
4.1.3 Types of eggs
4.1.4 Types of cleavages
4.1.5 Development of Frog up to formation of primary germ layers
4.1.6 Formation of Foetal membrane in chick embryo and their functions
4.1.7 Types and functions of Placenta in mammals
4.1.8 Regeneration in Turbellaria and Lizards

Suggested Readings:

1. E.L.Jordan and P.S. Verma '*Chordate Zoology*' -. S. Chand Publications.
2. Mohan P.Arora. '*Chordata – I*, Himalaya Publishing House Pvt.Ltd.
3. Marshal, Parker and Haswell '*Text book of Vertebrates*'. ELBS and McMillan, England.
4. Alfred Sherwood Romer. Thomas S. Pearson '*The Vertebrate Body*, Sixth edition, CBS college Publishing, Saunders College Publishing
5. George C. Kent, Robert K. Carr. *Comparative Anatomy of the Vertebrates,* 9th ed. McGraw Hill.
6. Kenneth Kardong *Vertebrates: Comparative Anatomy*, *Function and Evolution,* 4th ed, 'McGraw Hill.
7. J.W. Young, *The Life of Vertebrates*, 3rd ed, Oxford University press.
8. Harvey Pough F, Christine M. Janis, B. Heiser, *Vertebrate Life*, Pearson, 6th ed, Pearson Education Inc.2002.

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS

B.Sc. II Year
ZOOLOGY PRACTICAL SYLLABUS FOR III SEMESTER
ZOOLOGY - CORE PAPER - III
Animal Diversity- Vertebrates and Developmental Biology

Periods: 30 Max. Marks: 25

Study of museum slides / specimens / models (Classification of animals up to orders)

1. Protochordata: *Amphioxus*, *Amphioxus* T.S. through pharynx
2. Cyclostomata: *Petromyzon*, *Myxine*, *Ammocoetus larva*
3. Pisces: Sphyrna *Pristis*, *Torpedo*, *Channa*, *Pleuronectes*, *Hippocampus*, *Exocoetus*, *Echieneis*, *Labeo*, *Catla*, *Clarius*, *Auguilla*, *Protopterus*, Scales: Placoid, Cycloid, Ctenoid
4. Amphibia: *Ichthyophis*, *Amblystoma*, *Siren*, *Hyla*, *Rachophous*,*Bufo*,*Rana*, Axolotal larva
5. Reptilia : *Draco*, *Chemaeleon*, *Gecko*, *Uromastix*, *Vipera russelli*, *Naja*, *Bungarus*, *Enhydrina*, *Typhlops*, *Testudo*, *Trionyx*, *Crocodilus*, *Ptyas.*
6. Aves: Archaeopteryx, *Passer*, *Psittacula*, *Bubo*, *Alcedo*, *Columba*, *Corvus*, *Pavo;* Collection and study of different types of feathers: Quill, Contour, Filoplume, Down
7. Mammalia: *Ornithorhynchus*, *Tachyglossus*, *Pteropus*, *Funambulus*, *Manis*, *Loris*, Hedgehog

Histology: T.S. of Liver, Pancreas, Kidney, Stomach, Intestine, Lungs Artery, Vein, Bone T.S., Spinal cord.

Osteology :

1. Rabbit – Axial skeleton system (bones of Skull and Vertebral Column)
2. Varanus, Pigeon and Rabbit – Appendicular skeleton system (bones of limbs and girdles)

Dissections of *Labeo/Tilapia*:

1. Digestive system.
2. Brain, Weberian ossicles
3. V, VII, IX, X cranial nerves

Embryology

1. Study of T.S. of Testis and Ovary of a mammal
2. Study of different stages of cleavages (2, 4, 8, 16 cell stages); Morula, Blastula
3. Study of chick embryos of 18 hours, 24 hours, 33 hours and 48 hours of incubation

Laboratory Record work shall be submitted at the time of practical examination
An "Animal album" containing photographs, cut outs, with appropriate write up about the above mentioned taxa. Different taxa/ topics may be given to different sets of students for this purpose.

Computer aided virtual dissections.

Suggested manuals

1. S.S.Lal, Practical Zoology – Vertebrata
2. P.S.Verma, A manual of Practical Zoology – Chordata
3. Freeman & Bracegirdle, An atlas of embryology

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS

B.Sc. II Year
ZOOLOGY PRACTICAL SYLLABUS FOR III SEMESTER
ZOOLOGY - CORE PAPER - III
Animal Diversity- Vertebrates and Developmental Biology

Time: 2 Hrs. Max. Marks: 25

1. Identification, labeled diagram and salient features of spots: (6 Museum specimens + 2 slides)	08
2. Osteology (02 Spots)	04
3. Dissection (one) (Diagram + Dissection & Display)	05
4. Embryology (02 Spots)	04
5. Certified practical record	03
6. Animal Album	02
7. Viva voce	02

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS

B.Sc. II Year
IV - SEMESTER
Core Paper – IV
Cell Biology, Genetics & Evolution

Periods: 60 Max. Marks: 80

UNIT – I (15 Periods)

1. Cell Biology
1.1. Cell theory, Differences of Prokaryotic and Eukaryotic cells
1.2. Ultrastructure of animal cell
1.3. Structure and functions of plasma membrane proteins.
1.4. Structure and functions of cell organelles –
Endoplasmic reticulum, Golgi body, Ribosomes, Lysosomes, centrosomes, Mitochondria and Nucleus
1.1.5 Chromosomes – Structure, types, giant chromosomes
1.1.6 Cell Division - Mitosis, Meiosis.
1.1.7. Cell cycle and its regulation.

UNIT – II (15 Periods)

2. Molecular Biology
2.1 DNA (Deoxyribo Nucleic Acid) - Structure
2.2 RNA (Ribo Nucleic Acid) - Structure, types
2.3 DNA Replication
2.4 Protein Synthesis – Transcription and Translation
2.5 Gene Expression – Genetic Code; operon concept
2.6 Molecular Biology Techniques- Polymerase Chain Reaction, Electrophoresis

UNIT – III (15 Periods)

3. Genetics
3.1 Mendals laws of Inheritance and Non-Medelian Inheritance
3.2 Linkage and Crossing over
3.3.Sex determination and sex-linked inheritance
3.4 Chromosomal Mutations- Deletion, Duplication, Inversion, Translocation, Aneuploidy and Polyploidy.
3.5. Gene mutations- Induced versus Spontaneous mutations.
3.6. Inborn errors of metabolism.
3.7. One gene one enzyme, one gene one polypeptide theory.

UNIT – IV (15 Periods)

4. Evolution
4.1. Theories of evolution – Lamarckism and Neo-Lamarckism, Darwinism and Neo-Darwinism, Modern synthetic theory.
4.2. Evidences of Evolution and Hardy Weinberg Law.
4.3. Forces of Evolution – mutation, gene flow, genetic drift, and natural selection.
4.4. Isolation – Pre-mating and post mating isolating mechanisms
4.5. Speciation: Methods of speciation - Allopatric and sympatric
4.6. Causes and Role of Extinction in Evolution.

Suggested readings

1. Lodish, Berk, Zipursky, Matsudaria, Baltimore, Darnell *'Molecular Cell Biology'* W.H. Free man and company New York..
2. Gardner, E.J., Simmons, M.J., Snustad, D.P. (2008). *Principles of Genetics*. VIII Edition. Wiley India.
3. Snustad, D.P., Simmons, M.J. (2009). *Principles of Genetics*. V Edition. John Wiley and Sons Inc.
4. Klug, W.S., Cummings, M.R., Spencer, C.A. (2012). *Concepts of Genetics*. X Edition. Benjamin Cummings.
5. Russell, P. J. (2009). *Genetics- A Molecular Approach.* III Edition. Benjamin Cummings.
6. Griffiths, A.J.F., Wessler, S.R., Lewontin, R.C. and Carroll, S.B. *Introduction to Genetic Analysis*. IX Edition. W. H. Freeman and Co.
7. Ridley, M. (2004). *Evolution*. III Edition. Blackwell Publishing
8. Barton, N. H., Briggs, D. E. G., Eisen, J. A., Goldstein, D. B. and Patel, N. H. (2007). *Evolution*. Cold Spring, Harbour Laboratory Press.
9. Hall, B. K. and Hallgrimsson, B. (2008). *Evolution*. IV Edition. Jones and Bartlett Publishers
10. Campbell, N. A. and Reece J. B. (2011). *Biology*. IX Edition, Pearson, Benjamin, Cummings.
11. Douglas, J. Futuyma (1997). *Evolutionary Biology*. Sinauer Associates.
12. Minkoff, E. (1983). *Evolutionary Biology*. Addison-Wesley.
13. James D. Watson, Nancy H. Hopkins '*Molecular Biology of the Gene'*
14. Jan M. Savage. *Evolution,* 2nd ed, Oxford and IBH Publishing Co., New Delhi.
15. Gupta P.K., 'Genetics'

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS

B.Sc. II Year
ZOOLOGY PRACTICAL SYLLABUS FOR III SEMESTER
ZOOLOGY Core Paper – IV
Cell Biology, Genetics and Evolution

Periods: 30 Max. Marks: 25

I. Cytology
1. Preparation and Identification of slides of Mitotic divisions with onion root tips
2. Preparation and Identification of different stages of Meiosis in Grasshopper Testes
3. Identification and study of the following slides
   i). Different stages of Mitosis and Meiosis
   ii) Lamp brush and Polytene chromosomes

II. Genetics
1. Problems on Genetics - Mendelian inheritance, Linkage and crossing over, Sex linked inheritance

III. Evolution
1. Museum Study of Fossil animals: *Peripatus*, *Coelacanth Fish*, *Dipnoi fishes*, *Sphenodon*, *Archeopteryx*.
2. Study of homology and analogy from suitable specimens and pictures
3. Problems on Hardy-Weinberg Law
4. Macroevolution using Darwin finches (pictures)

Laboratory Record work shall be submitted at the time of practical examination

An "Album" containing photographs, cut outs, with appropriate write-up about Genetics and Evolution.

Computer aided techniques should be adopted as per UGC guide lines.

Suggested manuals

Manual of laboratory experiments in cell biology Edward, G.

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS

B.Sc. II Year
B.Sc. PRACTICAL MODEL PAPER FOR IV SEMESTER
ZOOLOGY - CORE PAPER - IV
Cell Biology, Genetics and Evolution

Time:2 Hrs. Max. Marks: 25

1. Identification, labeled diagram and salient features of spots: (05 spots)	10
2. Prepare and Identify Mitotic divisions with onion root tips:	04
3. One Problem from Genetics	03
4. One Problem from Evolution	03
5. Certified practical record	03
6. Album	02
7. Viva voce	02

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS 2019

CURRICULUM FOR ZOOLOGY
IN UNDER GRADUATE DEGREE PROGRAMME
CBCS SYLLABUS SCHEDULE 2019

Year	Semester	Paper		Title of the Paper	No. of Credits	Exam Hrs.	Max. Marks		
							I.A	End Exam	Total
I	I	Paper - I	Core-I Theory	Animal Diversity- Invertebrates	4	2	20	80	100
			Core-I Practical	Animal Diversity- Invertebrates	1	2	-	25	25
	II	Paper – II	Core-II Theory	Animal Diversity- Vertebrates	4	2	20	80	100
			Core-II Practical	Animal Diversity- Vertebrates	1	2	-	25	25
II	III	Paper – III	Core-III Theory	Animal Physiology, Animal Behaviour and Developmental Biology	4	2	20	80	100
			Core-III Practical	Animal Physiology, Animal Behaviour and Developmental Biology	1	2	-	25	25
			SEC-1	Sericulture / Aquaculture	2	2	10	40	50
			SEC-2	Clinical Science / Health and Hygiene	2	2	10	40	50
	IV	Paper - IV	Core-IV Theory	Cell Biology, Genetics, Evolution and Zoogeography.	4	2	20	80	100
			Core-IV Practical	Cell Biology, Genetics, Evolution and Zoogeography	1	2	-	25	25
			SEC-3	Apiculture / Poultry and Animal Husbandry	2	2	10	40	50
			SEC-4	Vermiculture / Biomaterials from Animals sources	2	2	10	40	50
III	V	Paper - V	DSE-I Theory	Physiological Chemistry / Immunology / Diagnostic Methods of Parasites / Animal Biotechnology	4	2	20	80	100
			DSE -I Practical	Physiological Chemistry / Immunology / Diagnostic Methods of Parasites / Animal Biotechnology	1	2	-	25	25
			GE – I Theory	Preventive Medicine / Integrated Pest Management / Health and Hygiene	4	2	20	80	100
		Paper - VI	DSE-II Theory	Fisheries / Limnology / Vector Biology / Laboratory Animals Maintenance and Applications	4	2	20	80	100
			DSE-II Practical	/ Fisheries / Limnology / Vector Biology / Laboratory Animals Maintenance and Applications	1	2	-	25	25
				Project / Tools and Techniques in Biology	4				

Practical One Credit equal to 3hrs

B.Sc. ZOOLOGY SYLLABUS UNDER CBCS 2019-20

CURRICULUM FOR ZOOLOGY
IN UNDER GRADUATE DEGREE PROGRAMME
CBCS SYLLABUS SCHEDULE 2019-20
PALAMURU UNIVERSITY

Year	Semester	Paper		Title of the Paper	No. of Credits	Exam Hrs.	Max. Marks		
							I.A	End Exam	Total
I	I	Paper - I	Core-I Theory	Animal Diversity- Invertebrates	4	2	20	80	100
			Core-I Practical	Animal Diversity- Invertebrates	1	2	10	40	50
	II	Paper – II	Core-II Theory	Animal Diversity- Vertebrates	4	2	20	80	100
			Core-II Practical	Animal Diversity- Vertebrates	1	2	10	40	50
II	III	Paper – III	Core-III Theory	Animal Physiology and Animal Behaviour	4	2	20	80	100
			Core-III Practical	Animal Physiology and Animal Behaviour	1	2	10	40	50
			SEC-1	Sericulture / Apiculture	2	2	10	40	50
			SEC-2	Public Health and Hygiene/ Medical Diagonistics	2	2	10	40	50
	IV	Paper - IV	Core-IV Theory	Cell Biology, Genetics, and Developmental Biology	4	2	20	80	100
			Core-IV Practical	Cell Biology, Genetics, and Developmental Biology	1	2	10	40	50
			SEC-3	Poultry and Animal Husbandry/ Vermiculture/ Vector Biology	2	2	10	40	50
			SEC-4	Biomaterials from Animals sources / Aquaculture/ Aquarium Fish Keeping	2	2	10	40	50
III	V	Paper - V	DSE-I Theory	Physiological Chemistry and Endocrinology/ Laboratory Animals Maintenance and Applications / Immunology and Animal Biotechnology	4	2	20	80	100
			DSE -I Practical	Physiological Chemistry and Endocrinology/ Laboratory Animals Maintenance and Applications / Immunology and Animal Biotechnology	1	2	10	40	50
			GE – I Theory	Preventive Medicine / Integrated Pest Management	4	2	20	80	100
	VI	Paper - VI	DSE-II Theory	Fisheries / Limnology / Ecology, Zoogeography and Evolution	4	2	20	80	100
			DSE-II Practical	Fisheries / Limnology / Ecology, Zoogeography and Evolution	1	2	10	40	50
				Project / Tools and Techniques in Biology	4	2	20	80	100
					46	**36**	**260**	**1040**	**1300**

DSC – Discipline Specific Core; **DSE –** Discipline Specific Elective; **SEC –** Skill enhancement Course; **GE-** Generic Elective (Open streams)

*Practical one credit equal to 3 hours of instruction

Paper AECC2 (a): BASIC COMPUTER SKILLS

(For students of Computer Science and Computer Applications)

Hours Per Week: 2 **Credits**: 2
Exam Hours: 1 ½ **Marks:** 40U+10I

Objective: to impart a basic level understanding of working of a computer and its usage.

UNIT I: UNDERSTANDING OF COMPUTER AND WORD PROCESSING:

Knowing computer: What is Computer, Basic Applications of Computer; Components of Computer System, Central Processing Unit (CPU), VDU, Keyboard and Mouse, Other input/output Devices, Computer Memory, Concepts of Hardware and Software; Concept of Computing, Data and Information; Applications of IECT; Connecting keyboard, mouse, monitor and printer to CPU and checking power supply.

Operating Computer using GUI Based Operating System: What is an Operating System; Basics of Popular Operating Systems; The User Interface, Using Mouse; Using right Button of the Mouse and Moving Icons on the screen, Use of Common Icons, Status Bar, Using Menu and Menu-selection, Running an Application, Viewing of File, Folders and Directories, Creating and Renaming of files and folders, Opening and closing of different Windows; Using help; Creating Short cuts, Basics of O.S Setup; Common utilities.

Understanding Word Processing: Word Processing Basics; Opening and Closing of documents; Text creation and Manipulation; Formatting of text; Table handling; Spell check, language setting and thesaurus; Printing of word document.

UNIT II: SPREAD SHEET, PRESENTATION SOFTWARE & INTRODUCTION TO INTERNET, WWW AND WEB BROWSERS:

Using Spread Sheet: Basics of Spreadsheet; Manipulation of cells; Formulas and Functions; Editing of Spread Sheet, printing of Spread Sheet.

Basics of presentation software: Creating Presentation; Preparation and Presentation of Slides; Slide Show; Taking printouts of presentation / handouts.

Introduction to Internet, WWW and Web Browsers:

Introduction to Internet: Basic of Computer networks; LAN, WAN; Concept of Internet; Applications of Internet; connecting to internet; What is ISP; Knowing the Internet; Basics of internet connectivity related troubleshooting.

World Wide Web: Search Engines; Understanding URL; Domain name; IP Address; Using e-governance website.

Web Browsing: Software, Communications and collaboration: Basics of electronic mail; Getting an email account; Sending and receiving emails; Accessing sent emails; Using Emails; Document collaboration; Instant Messaging; Netiquettes.

SUGGESTED READINGS:

1. Introduction to Computers, Peter Norton, McGrawHill , 2012.
2. Using Information Technology, Brian K williams, StaceyC.Sawyer, Tata McGrawHill.

Web Resources:

1. https://online.stanford.edu/courses/soe-ycscs101-sp-computer-science-101
2.https://www.extension.harvard.edu/open-learning-initiative/intensive-introduction- computer-science.

B.A./B.Com./B.Sc./B.B.A. (CBCS) Syllabus 2019– 2020

COURSE NO. AECC 2

BASIC COMPUTER SKILLS

OBJECTIVE:

The objective of this courses to enable student to understand the basic computer concepts related to day to day office environment.

UNIT – I: INTRODUCTION TO COMPUTERS

Introduction to Computation and Computers, components of computer CPU, Types of Memory, Types of computers – Software, Hardware Definition- Input devices (keyboard, MICR, OCR, OMR), Graphic input devices (Mouse, Graphic Tablet, Joystick), output devices (Printers - Impact & non-impact printer)- Introduction to Software, classification of software, Evolution of operating system, functions of operating system, Types of operating system.

UNIT - II: INTRODUCTION TO INFORMATION SYSTEM, WORD PROCESSING AND PRESENTATION:

Data & information, System, types of System, information system, Types system information system – definition, Application of information system, ethical and social issues in information system.

Word Processing -Creating, editing and saving documents, formatting features of word processing, working with tables and graphs, preview & printing documents;

Presentation – Creating, Editing and Saving shade shows, Templates, Animations – Brelitin Customer made – Preparing slideshows.

SUGGESTED BOOKS :

1. Computer fundamentals, 2e, A.K.Sharma, Universiy Press.
2. Introduction to computers , Tata Mc Graw Hill, Alexis Leon & Mathews Leon
3. Introduction to information technology, 2e, John Wiley & sons, Turban, Rainer, Potter
4. Computer fundamentals, Pearson, Anita Goel
5. Fundamentals of computers, Raja Raman, PHI
6. Basics of Computer Skills, Tulasi Ram, 2019, HPH