

**GOVERNMENT DEGREE COLLEGE (CO-Ed)
WANAPARTHY
TELANGANA STATE**



**WELCOME
TO
NAAC PEER TEAM**



**From
Department Of Zoology**

Vision - Mission



- **VISION**
- To provide quality education at higher education level by providing required knowledge and skills to the students. Besides, the college aims at creating competent human resources inculcating concepts related to all round development particularly in rural areas.
- **MISSION**
- Implementing student centric methods like seminars, workshops, group discussions, assignments, study projects and quiz etc. we enable the students to improve communicative skills and employability skills.
- arranging extension lectures by various experts in different fields, we enable the students to know the various advancements and innovations in the subject.
- By offering different classics from ancient and modern literature, we enable the students to develop good character and moral values.

Basic Information of Department of zoology



- The Department of zoology has been functioning since the inception of the College in 1974.
- The department of zoology was established in July, 1974 with B.Sc (BZC) in English medium. Later B.Sc (BZC) Telugu Medium was introduced in 1980 with sufficient faculty.
- Previously the department of Zoology under the OSMANIA UNIVERSITY upto 2010, after 2010-2011 academic year the department converted to PALAMURU UNIVERSITY.
- At present the department of Zoology is in north side of the Building. The department is provided two labs.
- The department is encouraging the students towards higher education like M.Sc Zoology, Biotechnology and also for various competitive exams like TSPSC and other board exams.

COURSES OFFERED IN THE DEPARTMENT



S.No	Programme	Group	Medium
1	B.Sc	BZC	E/M & T/M
2	B.Sc	BZCs	E/M & T/M

FACULTY IN THE DEPARTMENT



S.No	Name of the Faculty	Qualification	Designation	Period	
				From	To
1	C. Ramakrishna Murthy	M.Sc.,B.Ed,M.Phil	Lecture in Zoology	2018	Till date
2	R. Vijaya laxmi	M.Sc	Lecture in Zoology	2013	Till date

Criterion -1



CURRICULAR ASPECTS

Curricular Aspects



- The Department of Zoology follows common core syllabus approved by Palamuru University, Mahabubnagar
- The Department of Zoology follows the CBCS system Introduced by the Palamuru University in 2016.
- Detailed course schedule and lesson plans are prepared at the beginning of the each academic year for effective curriculum teaching.

Time - Table

Day	Year	1	2	3		4	5	6	
	TM/EM	10.00-11.00	11.00-12.00	12.00-01.00	01.00-01.30	1.30-2.30	2.30-3.30	3.30-4.30	
Monday	I				L U N C H B R E A K	Pr	Pr	Pr	
	II	ZOO							
	III		ZOO						
Tuesday	I						Pr	Pr	Pr
	II		ZOO						
	III	ZOO							
Wednesday	I	ZOO					Pr	Pr	Pr
	II			ZOO					
	III								
Thursday	I		ZOO						
	II	Pr	Pr	Pr			ZOO		
	III	ZOO					Pr	Pr	Pr
Friday	I		ZOO						
	II	Pr	Pr	Pr					
	III					Pr	Pr	Pr	
Saturday	I			ZOO					
	II	Pr	Pr	Pr					
	III		ZOO			Pr	Pr	Pr	

Syllabus

Semester	Paper	Titles
Semester –I	I	Animal Diversity-Invertebrates
Semester –II	II	Animal Diversity- Vertebrates
Semester –III	III	Animal Physiology & Animal Behaviour
Semester- IV	IV	Cell Biology Genetics & Developmental Biology
Semester –V	V	Physiology & Biochemistry
	VI	Applied Zoology
Semester -VI	VII	Immunology & Animal Biotechnology
	VIII	Aquatic Biology

Curriculum Enrichment



- While the curriculum serves as a creative platform, it also serves as an appropriate resource for students personality development, confidence, employment opportunities, and ways to excel as expertise in the subject, showing them ways to win life.
- The main objective of these courses is to inculcate scientific knowledge of study in the students and to make them creative.
- Through the employment generating course 'Sericulture, Vermiculture, Poultry, Animal Husbandry, Public health and Hygiene', students can look for extensive employment opportunities in the field of Zoology and life sciences.
- Certificate course is useful for excellence in higher education and research.

Feed back System



- The structural feed back on curriculum is taken from the students and alumni of the college
- The Feed back is analyzed and action taken report is prepared on the basis of the feed back
- IQAC takes feed back on teaching faculty from students.
- Faculty will take their suggestion and improve teaching

Criterion -2



TEACHING – LEARNING AND EVALUATION

Teaching – learning and evaluation

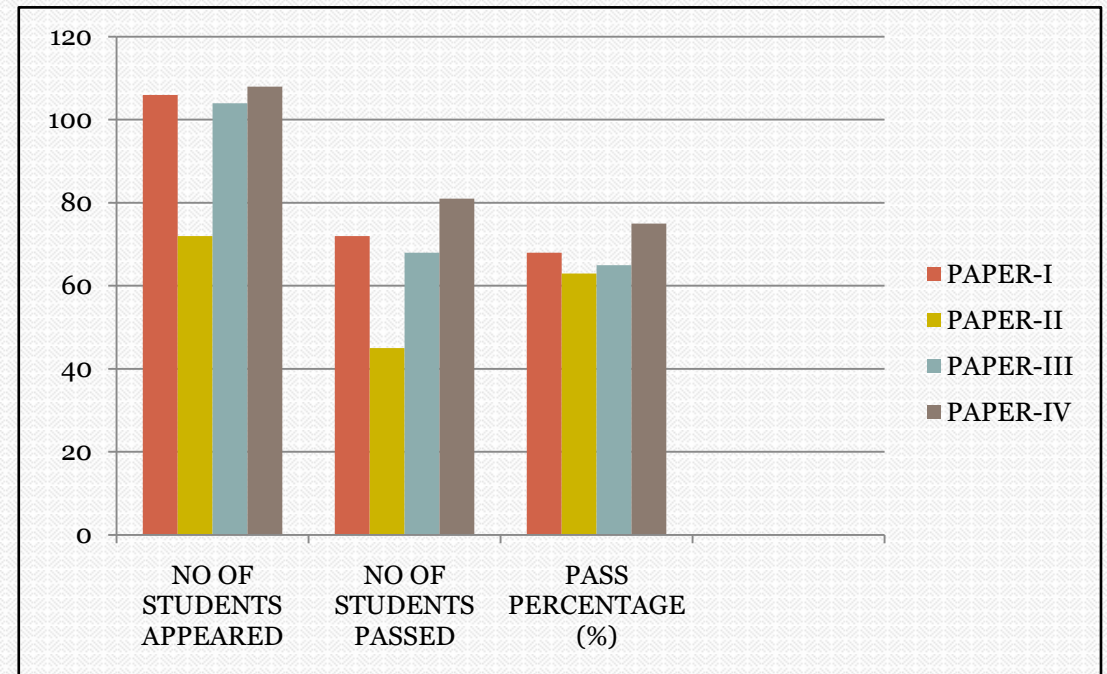


- The teaching is not confined only to the lecturing method. Much emphasis is given to the student centric activities such as student seminars, Quiz competitions, Field trips to bring best out of the students
- Evaluation of the students is done through study projects, internal examinations, student seminars and viva voce at the college level and through annual examinations at the university level.
- Advanced learners are encouraged to do student study projects.
- The Remedial coaching is conducted to backlog students to clear their failed papers.

Student enrollment and Evaluation

RESULT ANALIYS Academic year 2015-16

paper	No. of students appeared	No. of students passed	Pass percentage (%)
PAPER-I	106	72	68
PAPER-II	72	45	68
PAPER-III	104	68	65
PAPER-IV	108	81	75

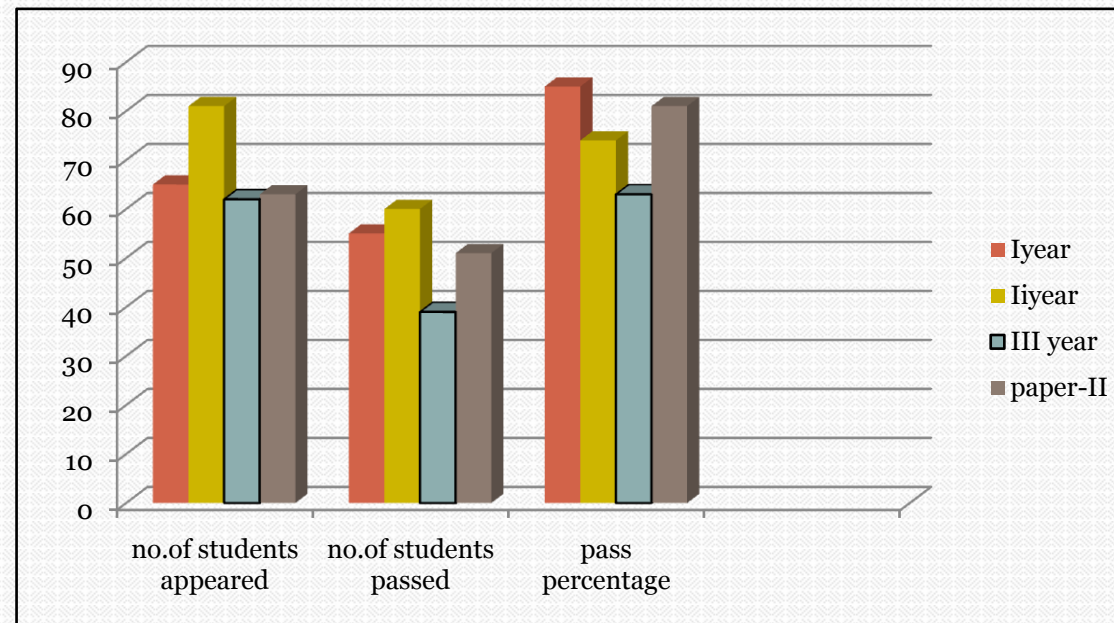


Student enrollment and Evaluation



RESULT ANALIYS Academic year 2016-17

paper	No.of students appeared	No.of students passed	Pass percentage (%)
I year	65	55	85%
II year	81	60	74%
III year Paper-III	62	39	63%
Paper-IV	63	51	81%

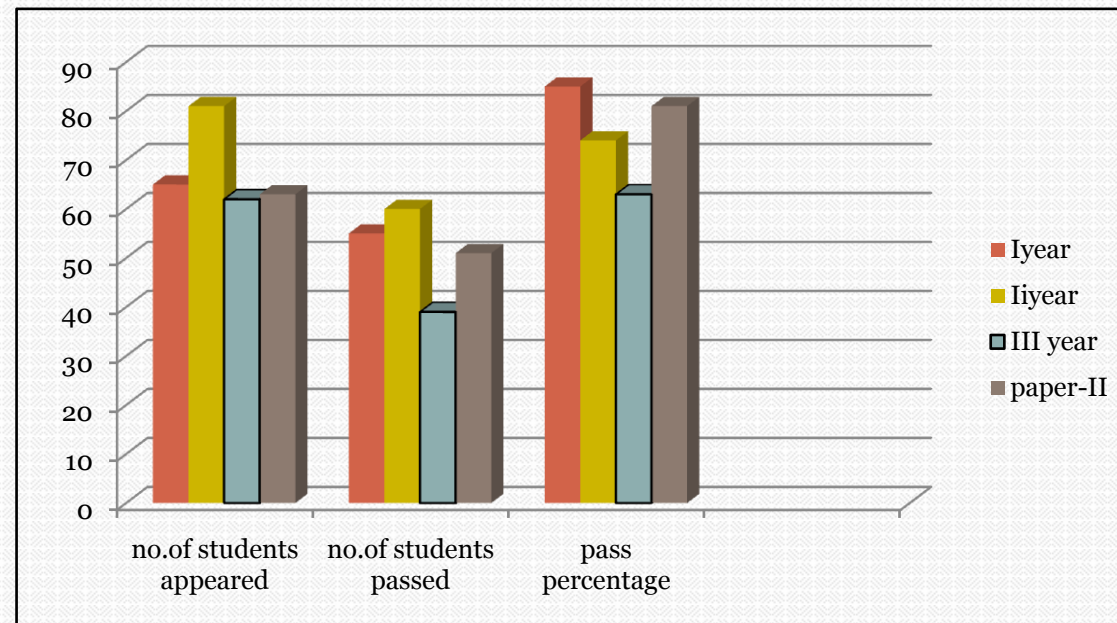


Student enrollment and Evaluation



RESULT ANALIYS Academic year 2017-18

paper	No.of students appeared	No.of students passed	Pass percentage (%)
I year	76	66	87%
II year	52	44	85%
III year Paper-III	73	51	70%
Paper-IV	74	50	68%

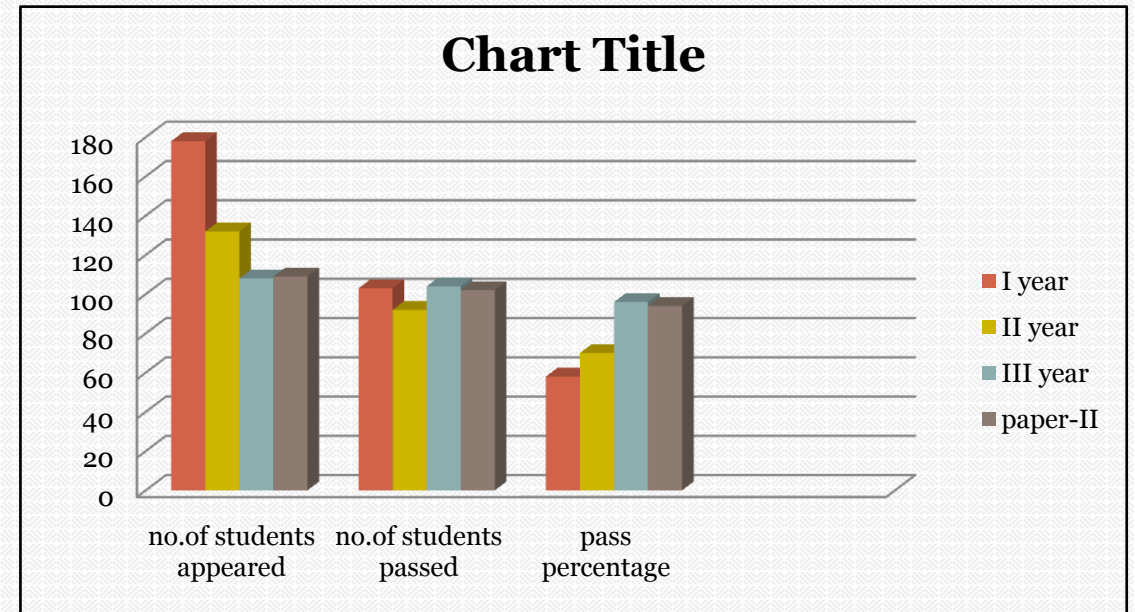


Student enrollment and Evaluation



RESULT ANALIYS Academic year 2018-19

paper	No.of students appeared	No.of students passed	Pass percentage (%)
I year	178	103	58
II year	132	92	70
III year Paper-III	108	104	96
Paper-IV	109	102	94

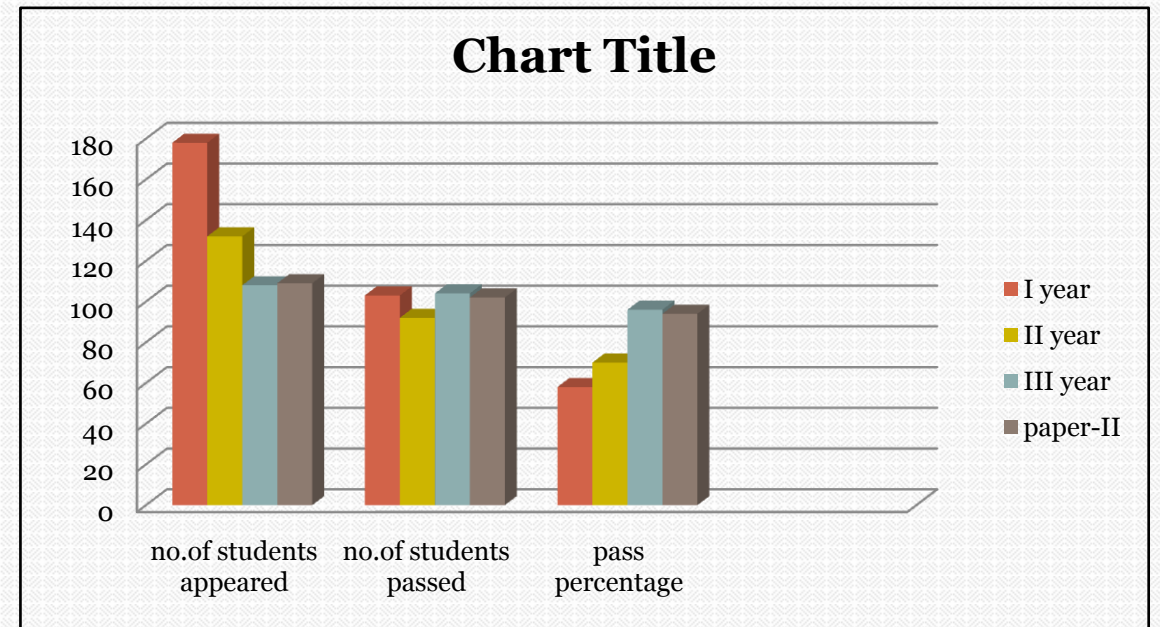


Student enrollment and Evaluation



RESULT ANALIYS Academic year 2019-20

paper	No.of students appeared	No.of students passed	Pass percentage (%)
I year	178	103	58
II year	132	92	70
III year Paper-III	108	104	96
Paper-IV	109	102	94



Catering Student Diversity



- An orientation programme is held in the beginning of every academic year for the newly admitted students.
- A post- admission test is administered and assessed by the department to get better insight in terms of knowledge and skills of the students and also identifies slow learners and advanced learners.
- On the basis of post-admission test and academic counseling, the knowledge gaps are identified.
- Remedial classes are conducted to fill these knowledge gaps.

Teaching – Learning Process



- The Department follows Curriculum designed by the university with added inputs.
- Apart from regular lecturing method and usage of blackboard for teaching, the following methodology is adopted to enable the class room teaching more interesting and innovative to the students.
- Participatory and interactive methods have been maintained, such as Group discussion, Quiz programmes, debates, student seminars, field trips, study projects.

Student Seminars



S.No	Year	Class	Date	Name of the Student	Topic	No.of Students Attended
1	2014-15	BZC –III YEAR	21-07-2014	A .Ramachadraiah	STURUCTURE OF NEURON	35
2		BZC – II YEAR	22-07-2014	D. Dhamodar	CALOTES RESPIRATION	38
3		BZC –I YEAR	23-07-2014	D. Swamy	PILA NEROUS SYSTEM	20
4	2015-16	BZC –III YEAR	13-07-2015	P. Srivani	PANCREAS HORMONES	41
5		BZC – II YEAR	14-07-2015	P. Naresh	FOETAL MEMBRANES	20
6		BZC –I YEAR	15-07-2015	P.Yamini	PILA NEROUS SYSEM	20

Student Seminars

S.No	Year	Class	Date	Name of the Student	Topic	No. of Students Attended
1	2016-17	BZC –III YEAR	21-09-2016	N Sudharani	Kreb's Cycle	28
2		BZC – II YEAR	22-09-2016	Shirish	Calotes Digestive system	45
3		BZC –I YEAR	23-09-2016	G.Kaveri	Prawn's Nerous System	34
4	2017-18	BZC –III YEAR	08-08-2017	Lavanya	Sliding Filament Theory	67
5		BZC – II YEAR	09-08-2017	Mounika	Calotes – Venous System	32
6		BZC –I YEAR	10-08-2017	Archana	Leech Digestive System	61

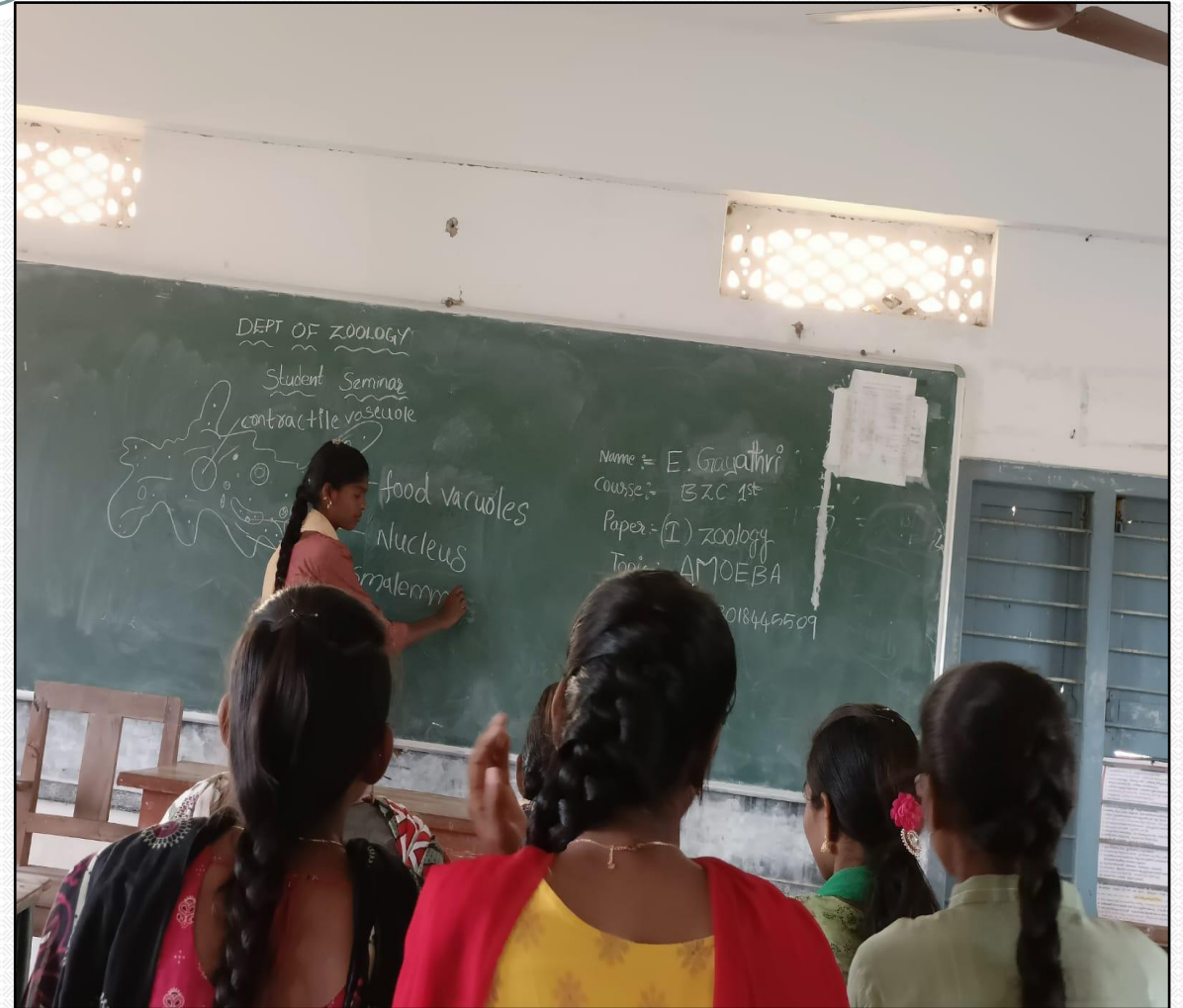
STUDENTS STUDY PROJECTS

S.No	Adamic year	Name of the student project	Student involved
1	2014-15	Various species in the ponds sourrounding of wanaparthy	4
2	2015-16	Local fishes of wanaparthy sourroundings	5
3	2016-17	Effect of high & low glycemic index food on diabetic patient	7
4	2017-18	Diversity and Conservation of snakes in Wanaparthy District	5
5		Organisms of cosmetics &its effects	6
6	2018-19	Prevention and treatment of bone cancer	5
7	2019-20	Biomedical waste management in wananparthy	5

Student seminars



Student seminars



Field trips



Field trips



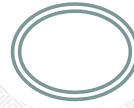
Academic Activities



Academic Activities



Evaluation Process



- The Choice Based Credit System aims at the continuous internal evaluation of the students.
- The examination pattern given by the Palamuru University where 80:20 ratio is implemented. (80 Marks for Semester End Examination and 20 Marks for Internal Assessment)
- Two Internal Examinations are conducted for every Semester and average of the two is taken.
- The evaluation of the students is also done by their performance through the following;
 - A) Assignments
 - B) Students seminars
 - C) Study Projects
 - D) Students Attendance

Student Performance and Learning Outcomes

Course Outcomes



- The motto behind is to improve the scientific skills of all students in the class.
- Opportunities to go for higher education In science and technology
- Make Students employable in fishery, forestry, Animal husbandry, poultry, sericulture, pharma and life science Sectors.
- Motivates Students to expertise in various scientific skills.

Criterion -3



RESEARCH, INNOVATION AND EXTENSION

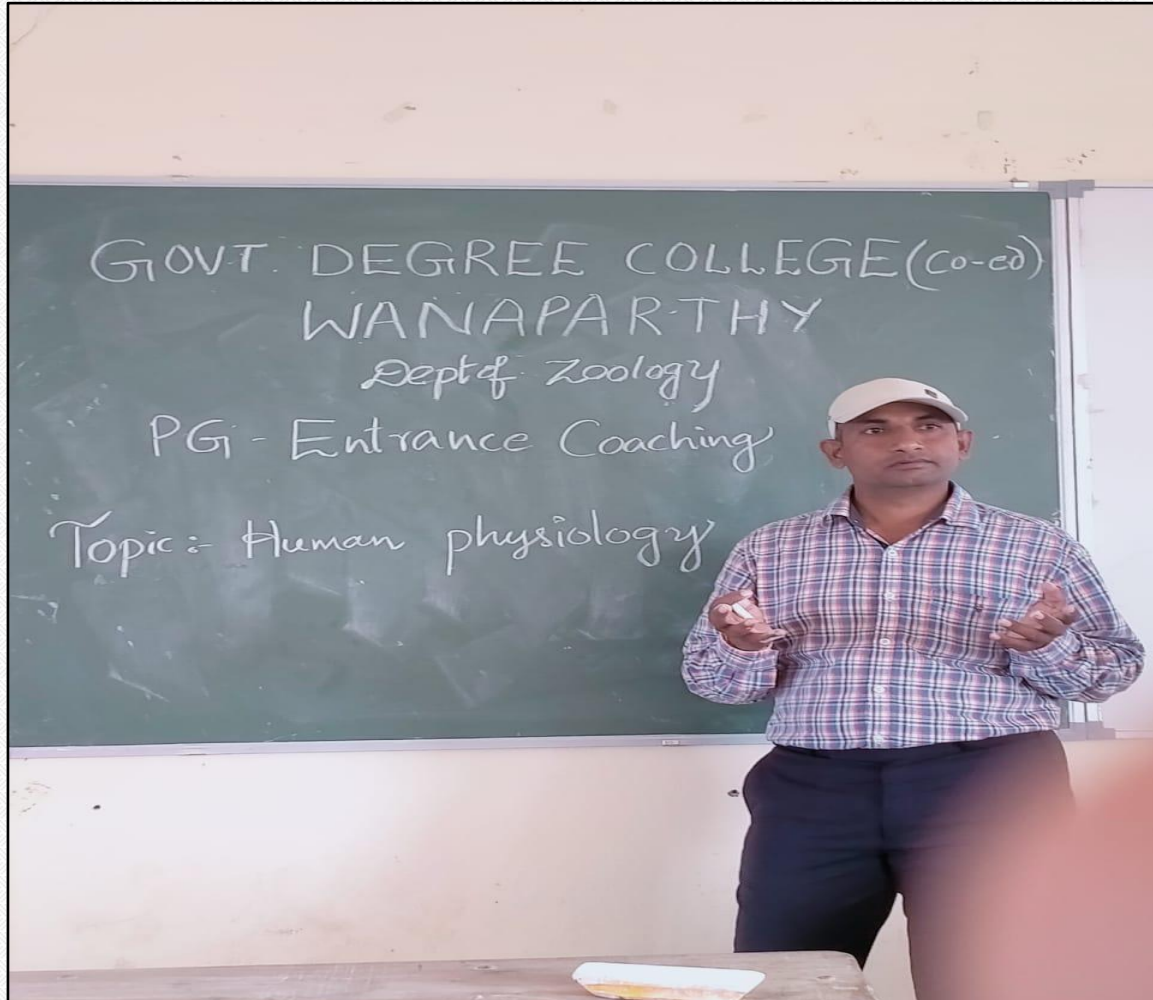
Faculty participation in FDP's, Workshops and Seminars

- ❖ **One week National online faculty development Programme** on sustainability of institutions of Higher learning in the context of Covid -19: Challenges and Perspectives held on **06th to 11th, July, 2020** at Govt. Degree College, Narsampet, Telangana.
- ❖ **Five days online faculty development programme** on Philosophy for Happy Life held on **12th to 16th, June, 2020** at Satyasai Institute of Technology and Management, Vijayanagaram, Andhra Pradesh.
- ❖ **Five days faculty development programme** on Nurturing research and innovation in Higher education institute held on **29th June to 04th July, 2020** at Dr. M.G.R. educational and research institute, Chennai, Tamilnadu, India.
- ❖ **Two week faculty development programme** on Hurdles and Solutions in research awareness on **13th to 26th July, 2020** at Tara Government Degree College, Sanga Reddy, Telangana, India.
- ❖ **Two week national level online faculty development programme** on Skill development and competency enhancement for college teachers on **17th to 30th June, 2020** at Govt. Degree College, Parakal, Warangal, Telangana.
- ❖ **One day National Seminar** on recent advances in chemical sciences on **11th Jan, 2020** at GDC Wanaparthy, Telangana.
- ❖ **One day Workshop** on recent research, innovations and trends in life sciences on **12th Jan, 2018** at GDC Wanaparthy, Telangana.

Extension Activities

S.No	Year	Date	Details of Resource Persons	Topic	No. of students participated
1	2014-15	10.11.2014	Dr.Sreedhar CCMB,HYD	Instrumentation	110
2	2015-16	18.09.2015	Dr.Shiva Narayana M.Sc., Ph.D,Gadwal	Structure & Function of Kidney	47
3		28.12.2015	Dr.B.Laxmappa F.D.O, MBNR	Fishery & Aquaculture (fishes types,diseases & culture methods)	37
4	2016-17	12.09.2016	Dr.N.Chandra Shekar Reddy M.Sc.,B.Ed – Ph.D	Hormones As Chemical Messengers	38
5	2017-18	18.09.2017	G.Rani M.Sc.,B.Ed, (Govt.Degree.College,Pebbair)	Nerve cells & Nerve Impulse	46
6	2018-19	13.09.2018	Dr.N.Chandra Shekar Reddy M.Sc., Ph.D	Endocrinology – Hormones Functions	83
7	2019-20	17.09.2019	Dr.Raja Shekar	Know Yourself A Physical Approach	101

Extension lectures



Extension lectures



Criterion -4



INFRASTRUCTURE AND LEARNING RESOURCES

Teaching with ICT

- Department faculty are effectively teaching through digital classrooms using OHP and Projectors.
- During the pandemic Covid-19 we taught classes through various online platforms: Zoom App, Google Meet and Youtube



Equipments

Bio-Visual Charts	200
Binocular Microscopes	04
BP Apparatus	01
Thermometer	12
Stethoscope	01
Analytical Balance	01
High Centrifuge Digital	01
Photo Calorimeter Digital	12
Research Inclined Microscope	01
Paper Chromatography	05
Electrophoresis Horizontal	03
Incubator	01
Chromatography Chamber	01
Trinocular Research Microscope	04
Digital Photography Equipment (Sony Camera)	01
Medical Microscope	06
Refrigerator	01
OHP	01
Slide Projector	01
PH Meter	01

Specimens

- **PORIFERA:**

- EUSPONGIA
- SYCON
- SPONGILLA
- EUPLECTELLA

- **COELENTERATA:**

- PENNATULA
- GARGONIA
- PORPITA
- AURELIA
- CORALLIUM
- VELELLA
- RHIZOSTOMA
- TUBIPORA
- PORPITA
- SEA ANAEMONE (METRIDIDIUM)
- MIANDRINA
- MILLIPORA
- FUNGIA
- CLIONA

Specimens

- **HELMINTHES:**

- SCHISTOSOMA
- FASCIOLA
- TAENIA SOLIUM
- BLADDER WORM (CYSTICERCUS)
- DRACANCULUS
- WUCHARARIA
- ASCARIS FEMALE
- ASCARIS MALE

- **ANNELIDA:**

- HIRUDO
- NERIES
- HETERONERIES
- CHAETOPTEROUS
- APHRODITE

Specimens

- **Mollusca:**

- CHITON
- OCTOPUS
- DENTALIUM
- SEPIA
- PINCTADA VULGARIS
- LALLIGO
- UNIO
- PTERIDO
- LIMAX
- DORIS
- NAUTILUS
- EUPAGURUS-PILA
- PILA
- APHRODITE

- **ECHINODERMATA:**

- ASTERIAS
- ANTEDON
- CHITON
- OPHIOTHRIX
- ECHINUS
- CUCUMARIA
- CLYPEASTER
- HOLOTHURIA

- **PROTOCHORDATES:**

- BALANOGLOSSUS
- AMPHIOXUS
- HERDIMANIA
- MYXINE
- PETROMYZON
- AMMOCOETOUS LARVA

Specimens

- **PISCES:**

- NOTOPTERUS
- CLARIUS BATRUCUS
- OPHIOCEPHALUS
- LABEO ROHITA
- CATLA CATLA
- SCOLIODON
- EXOCOETUS
- CHANNA PUNCTATA
- TORPEDO
- AMIA
- ECHINEIS
- PROTOPTEROUS
- ANGUILLA
- SYNGNATHUS
- PLEURONECTUS
- HIPPOCAMPUS
- ANABAS

- **AMPHIBIA:**

- HYLA
- ICHTHYOPHIS
- AXOLOTL LARVA
- SALAMANDRA
- TRITURUS
- AMBLYSTOMA
- FROG LIFE HISTORY

- **REPTILIA:**

- BUNGARUS
- TROPIDONOTUS
- RUSSELS VIPER
- CHAMELEON
- NAJA NAJA
- DRACO
- CALLOPHYS-CORAL SNAKE
- ERYX
- TESTUDO
- GAVIALIS
- UROMASTIX

Specimens

- **AVES:**

- PSITTACULA
- PICUS
- EUDYNAMUS
- BUBO
- PHONICOPTEROUS

-

- **MAMMALIA:**

-

- ECHIDNA
- PLATYPUS
- MACROPUS
- MACROPUS
- OPPOSUM (DIDELPHYS)
- HEDGEHOG
- FUNAMBULUS
- LORIS
- PTEROPUS

- **OSTEOLOGY:**

- VARANUS SKELETON
- FROG SKELETON
- HUMAN SKELETON (ARTIFICIAL)
- BONES OF AXIAL SKELETON (RABBIT)

- **POP MODELS:**

- KIDNEY
- HEART
- HUMAN HEART
- DNA AND RNA

Teaching with ICT

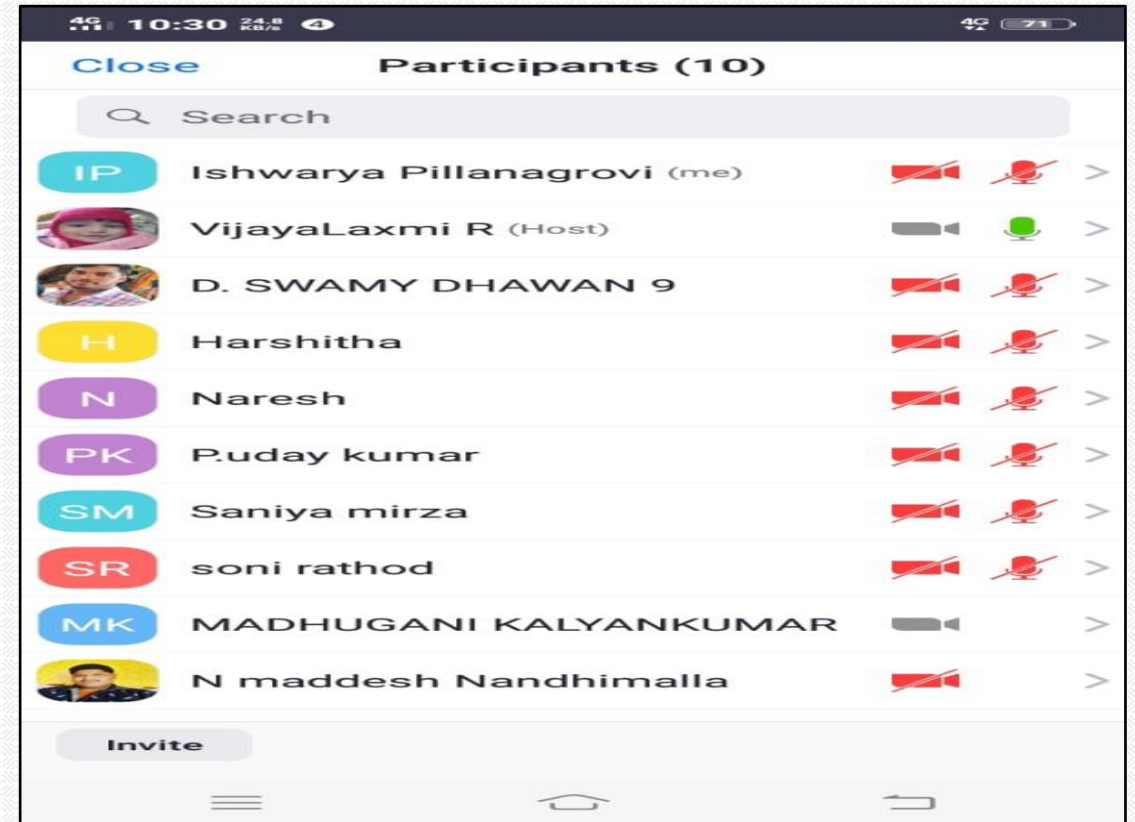
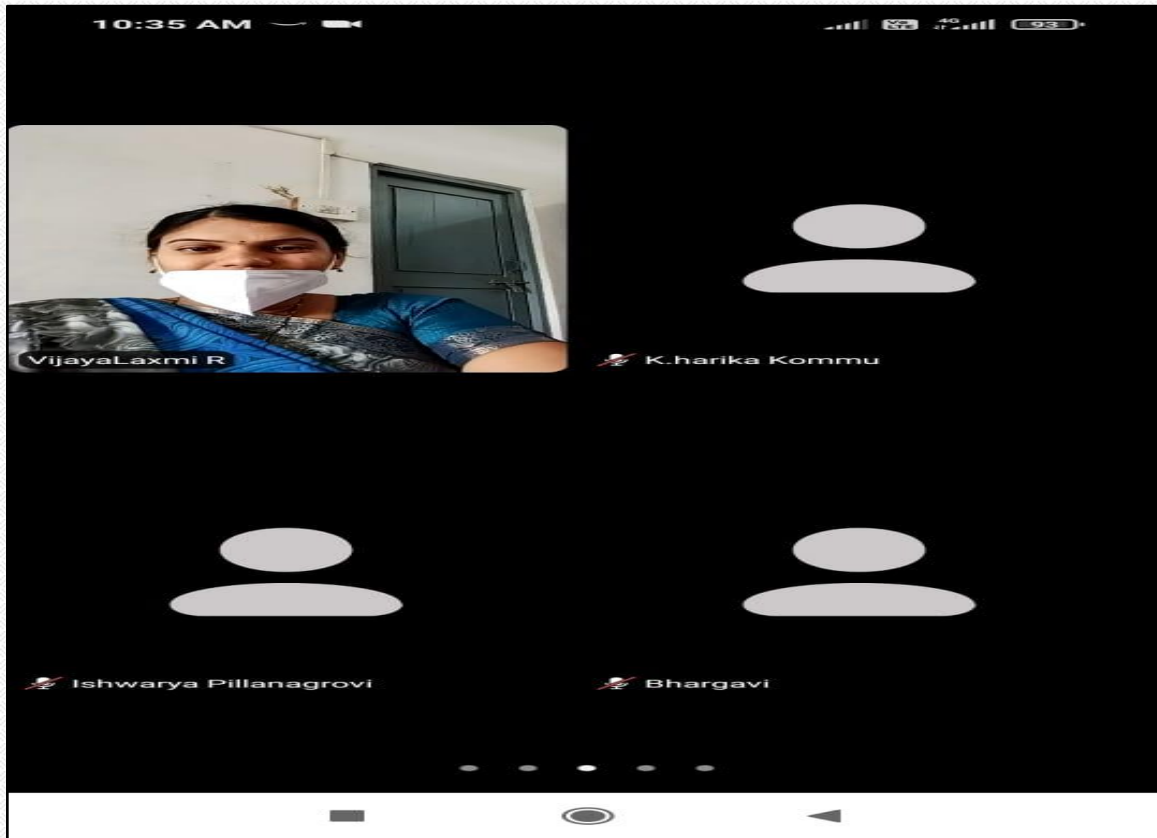


Use of ICT & PPT

S.No	Name of the faculty	Class	Year/ Semister	Topic covered
1	C.RamaKrushna Murthy	B.Sc., BZC	I year	Elphidium Life Histroy
2	C.RamaKrushna Murthy	B.Sc., BZC	I year	Formation of Corals & Coral reefs
3	C.RamaKrushna Murthy	B.Sc., BZC	III year	Types of Fishing Gears
4	C.RamaKrushna Murthy	B.Sc., BZC	I year	Reproduction types in Protozoa
5	C.RamaKrushna Murthy	B.Sc., BZC	I year	Canal System in Sycon
6	C.RamaKrushna Murthy	B.Sc., BZC	III year	Thyroid Gland Structure & function
7	C.RamaKrushna Murthy	B.Sc., BZC	III year	Stem cell structure & functions
8	C.RamaKrushna Murthy	B.Sc., BZC	III year	Neuron structure & functions
9	C.RamaKrushna Murthy	B.Sc., BZC	III year	Apiculture by products & economic importance
10	C.RamaKrushna Murthy	B.Sc., BZC	III year	Sericulture in India
11	C.RamaKrushna Murthy	B.Sc., BZC	III year	Rearing of Silkworms
12	C.RamaKrushna Murthy	B.Sc., BZC	III year	Econmic importance of Honey bees

S.No	Name of the faculty	Class	Year/ Semester	Topic covered
1	R. VIJAYA LAXMI	B.Sc., BZC	III year	Digestion & absorption of carbohydrates , proteins & lipids
2	R. VIJAYA LAXMI	B.Sc., BZC	II&III year	Transport of gases –oxygen and carbondioxide
3	R. VIJAYA LAXMI	B.Sc., BZC	III year	Mammalian heart structure & functions
4	R. VIJAYA LAXMI	B.Sc., BZC	III year	General characters & classification of amphibia
5	R. VIJAYA LAXMI	B.Sc., BZC	II&III year	Haemostasis –mechanism of blood clotting
6	R. VIJAYA LAXMI	B.Sc., BZC	II year	Excretory products & their eliminations,structure of kidney
7	R. VIJAYA LAXMI	B.Sc., BZC	II year	Counter current mechanism in kidney
8	R. VIJAYA LAXMI	B.Sc., BZC	II&III year	Types of muscles & its functions
9	R. VIJAYA LAXMI	B.Sc., BZC	II&III year	Structure of Neuron
10	R. VIJAYA LAXMI	B.Sc., BZC	II year	Gametogenesis –Spermatogenesis its significance
11	R. VIJAYA LAXMI	B.Sc., BZC	II year	Oogenesis – its significance
12	R. VIJAYA LAXMI	B.Sc., BZC	II year	Fertilization

Online classes & You Tube Channel

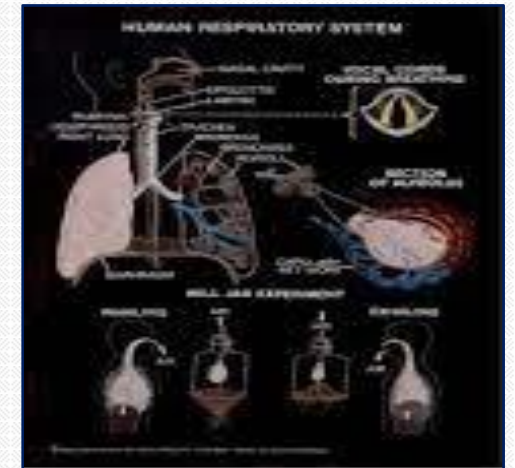


Online classes & You Tube Channel



Resource Available in Department

- **TEACHING AIDS**
- Charts
- OHP
- Projector
- Maps
- Digital class room



Criterion -5



STUDENT SUPPORT AND PROGRESSION

Capacity enhancement and Development schemes



- Remedial coaching
- Competitive examinations
- Soft skills development
- Career counseling
- Personal Counseling

Criterion -6



GOVERNANCE, LEADERSHIP AND MANAGEMENT

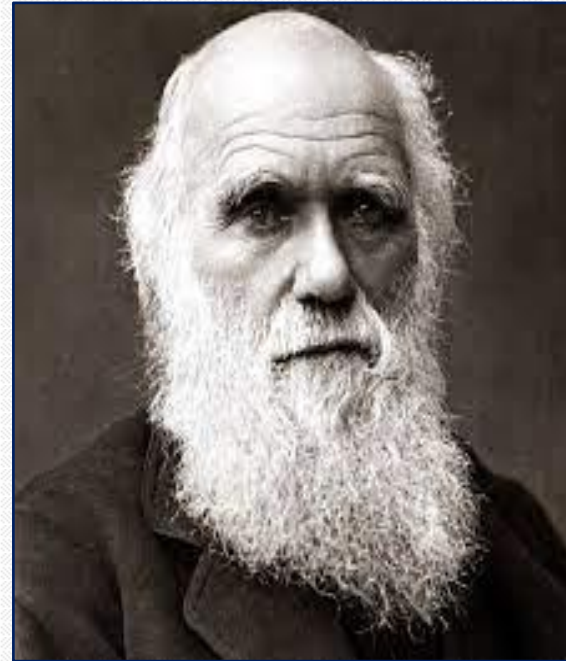
Criterion -7



INSTITUTIONAL VALUES AND BEST PRACTICES

Organizes Birth anniversary of scientists

- The Zoology Department celebrates the birth anniversary of Charles Darwin on 12th February and the birth anniversary of Mendel on 20th July every year.
- Through the Conducting of these programs, the zoology department is imparting the eminent scientific personalities.



Extension Lectures

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2	2015-16	18.09.2015	Dr. Shiva Narayana M.Sc., Ph.D,Gadwal	Structure & Function of Kidney	47
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FUTURE PLANS

- Planning to develop the clinical pathology lab
- Planning to Conduct Certificate Course In clinical pathology.
- Planning to Collaborate with Dept. of Zoology, University PG Center to Organize National seminar and workshops.
- Planning to train the students in handling the scientific equipments.

**THANK
YOU**
