

J.V.R GOVERNMENT COLLEGE
SATHUPALLY – KHAMMAM DIST.
CERTIFICATE COURSE IN ZOOLOGY
“BASIC TOOLS & TECHNIQUES IN LABORATORIES”

Date: 11.03.2022

Permission letter

To
the Principal
J.V.R Govt. College
Sathupally, Khammam (Dt.).

Sir,

Sub: Grant of Permission for the conduction of Certificate Course, **Basic Tools & Techniques in Laboratories**, Department of Zoology, in our college – Request –Reg.

It was decided in the department that a Certificate Course, **Basic Tools & Techniques in Laboratories** has to be conducted for the interested candidates. It is a 30hr course. Students will need to keep 60% attendance and score 70% in the MCQ's test to be conducted at the end of the course to get a certificate. Course is free of cost.

Kindly permit me to conduct the Certificate Course for the academic year 2021-'22.

Thanking you sir

Yours faithfully



M . Srinivas Sarin

Asst. Prof. of Zoology

J.V.R Govt. College, Sathupally.

permitted



PRINCIPAL
J.V.R. GOVT. COLLEGE
SATHUPALLY. KMM DT.

NOTICE

This is to inform to all the students that the Department of Zoology is organizing a Certificate course in **Basic Tools & Techniques in Laboratories**. Those who are interested can enroll their names with the departmental in charge on or before 11.03.2022. Classes will be commenced in Room no. 54 in this college from 18.03.2022.

Rules & Regulations:

Eligibility: Students from Life sciences

Duration: 30 Working days

Timing: Classes will be conducted for 1 hour for 30 days after college hours.

Course Fee: Free of Cost

Certificate Distribution: At the end of the course, certificates will be distributed to students who attend 60% of classes conducted and attain at least 70% of marks in the examination consisting of 15 Multiple Choice Questions.


Course in charge

HEAD,
DEPARTMENT OF ZOOLOGY,
C.V.R. GOVT. COLLEGE,
SATHYAPALLY, KMM DT.
Tel: 9873-43


PRINCIPAL
C.V.R. GOVT. COLLEGE
SATHYAPALLY, KMM DT.

SYLLABUS

+ THEORY:

UNIT	TOPICS	HOURS
UNIT-I	<ol style="list-style-type: none"> 1. Laboratory safety guidelines 2. Microscopy - Types 3. Introduction to Haematology 4. Blood structure & functions 	10 HOURS
Unit-II	<ol style="list-style-type: none"> 5. Collection of Blood sample – Methods 6. Anticoagulants used in haematology. 7. Blood grouping Test 8. Hemoglobin Estimation - Sahli's method 	7 HOURS
Unit-III	<ol style="list-style-type: none"> 9. Blood cell count - Haemocytometer method 10. Protein Estimation – Calorimetry method 11. Other important Laboratory equipments. 	7 HOURS

PRACTICALS

UNIT	TOPICS	HOURS
Unit-IV	<ol style="list-style-type: none"> 1. Blood grouping and Rh typing 2. Hemoglobin Estimation 3. Total count of RBC 4. Total count of WBC 5. Differential count of WBC 6. Protein Estimation 	6 HOUR

S. S. S.

J.V.R GOVERNMENT COLLEGE

SATHUPALLY – KHAMMAM DIST.

CERTIFICATE COURSE IN ZOOLOGY

BASIC TOOLS & TECHNIQUES IN LABORATORIES

(MARKS = 50)

Date:14.06.2022

S.NO	HALL TICKET NO.	NAME OF THE STUDENT	THEORY MARKS (30)	PRACTICAL MARKS (20)	TOTAL T+P (50)
1	032 - 20 - 3004	B. chintu	26	20	46
2	032 - 20 - 3006	D. Suma	28	20	48
3	032 - 20 - 3007	D. Ramya	24	15	39
4	032 - 20 - 3009	E. Krishaveni	24	18	42
5	032 - 20 - 3011	T. Sranvanthi	26	20	46
6	. . 3015	K. Kausalya	28	19	47
7	. . 3020	M. Naga jyothi	26	19	45
8	. . 3022	N. Lavanya	28	20	48
9	. . 3027	S. Ram Babu	26	19	45
10	032 - 20 - 3201	D. Raj Kumar	30	20	50
11	3202	G. Sowjanya	28	20	48
12	3003	G. Swarupa	28	20	48
13	3205	K. Rajkumar	25	18	43
14	3211	A. Pavan Kumar	28	20	48
15	3214	SK. Rizwana	30	20	50

COURSE INCHARGE

(M. Srinivas Sarin)

PRINCIPAL

(P. Ramchander)
J.V.R. GOVT. COLLEGE
SATHUPALLY. KMM DT.

14/06/2022.

J.V.R GOVERNMENT COLLEGE
SATHUPALLY - KHAMMAM (DIST.)

:::: DEPARTMENT OF ZOOLOGY ::::

CERTIFICATE COURSE
IN
BASIC TOOLS & TECHNIQUES IN LABORATORIES

Marks : 15 * 2 = 30

Name of the Student:

Roll No:

1. Which among the following is a safety guide line in Laboratories ...?

- a) Common Sense
- b) Electrical safety
- c) Chemical safety
- d) Personal safety
- e) All

2. Which among the following has a magnification power range of 40X – 100X...?

- a) Eye piece
- b) Objective Lens
- c) Both
- d) None

3. Which part of Microscope is similar to that of Iris of Human Eye .?

- a) Nose Piece
- b) Eye piece
- c) Diaphragm
- d) Condensor

4. Identify the use of Microscope

- a) For Tissue Analysis
- b) For Forensic Medicine
- c) For study of Cell & components
- d) All

5. Average Haemoglobin level of men is

- a) 13.5 to 18.0 gm/dl
- b) 11.5 to 16.0 gm/dl
- c) 7.5 to 9.5 gm/dl
- d) 20.5 to 27.0 gm/dl

6. Capillary puncture of blood sample collection method is ideal for small children

- a) True
- b) False

7. Most common & routinely performed invasive Procedure of Collection of blood sample method is

- a) Arterial sampling
- b) Finger stick Sampling
- c) Capillary Puncture
- d) Veni puncture

8. One of the following is not an Anticoagulant ?

- a) Heparin
- b) EDTA
- c) EDAT
- d) Citrates
- e) Oxalates

9. "O" Blood Group persons are not having Antibodies...

- a) True
- b) False

10. In a blood group testing if 1st drop gets Agglutinated, 2nd drop is not Agglutinated and 3rd drop gets Agglutinated, then it is described as

- a) A -ve
- b) B -ve
- c) A +ve
- d) B +ve

11. Up to which Mark, blood has to be taken in a WBC Pipette

- a) 0.3 Mark
- b) 0.4 Mark
- c) 0.5 Mark
- d) 0.6 Mark

12. Which coloured filter is used to take OD values for the estimation of Protein by Lowry method ?

- a) Blue
- b) Red
- c) Yellow
- d) Orange
- e) Pink

13. Apparatus used to determine Systolic & Diastolic pressures of an Individual .?

- a) A.P Apparatus
- b) B.P Apparatus
- c) C.P Apparatus
- d) D.P Apparatus

14. Which instrument is used to sterilize the equipments ?

- a) Hot Water Bath
- b) Hot Air Oven
- c) Inoculation chamber
- d) Laminar Air Flow

15. Instrument used for the separation of Fluids / Liquids based on their density .?

- a) Colorimeter
- b) Centrifuge
- c) Incubator
- d) PH Meter.

Total marks:

Course Incharge

Department of Zoology
J.V.R. Govt. Degree College
BATHUPALLY - Kmm Dt

Certificate of Training

This Certifies that

Name: D. Raj Kumar - BZC III year.

Has completed the 30 hrs training course for

BASIC TOOLS & TECHNIQUES IN LABORATORIES

And is Awarded this Certificate By

J.V.R GOVERNMENT COLLEGE, SATHUPALLY, KHAMMAM DT.

Date: 14 / 06 / 2022

Department of Zoology
J.V.R. Govt Degree College

[Signature]
14/06/2022

Authorized Signatures

[Signature]

[Signature]
Principal
J.V.R. GOVT. COLLEGE