UG/3rd Sem/ZOO(H)/Pr/19

2019

3rd Semester Examination

ZOOLOGY (Honours)

Paper - C7P

(Fundamentals of Biochemistry)

Full Marks : 20   Time : 3 Hours

The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.

Answer all questions

1. Identify the sample provided by performing suitable qualitative test. Mention the name of the test performed, with observation and inference. Write the final conclusion. $2 + 2 + 2 = 6$

OR

Write down the principle and procedure of ammino acid separation by Paper chromatography. $3+3=6$

[Turn Over]

OR

Write down the principle and procedure of protein separation by SDS - PAGE $3 + 3 = 6$

2. Estimate the concentration of protein ($\mu g/ml$) present in the provided sample using Lowry's method. Correctly plot the reading on standard curve. Calculate the concentration of protein in $\mu g/ml$ from the reading, make a comment. $3 + 5 + 1 = 9$

3. Laboratory Note book. 2

4. Viva-voce. 3

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Instruction for Examiners.

For Question No. 1

1. Any one of the three experiments has to be selected by the examiners & has to be performed by all candidates.

2. After selection, the question how to be written & endorsed by the examiner on the first page of answer script.

3. If qualitative biochemical test is selected, then the following sampled may be prepared previously – as.

(i) Reducing Mansacchaide – (Glucose, Fructose)

(ii) Reducing Disacharide – (Maltose / Lactose)

(iii) Non leduing Disaccharide – (Sucrose)

(iv) Poly Saccharide – (Starch, Dextrin)

(v) Protein – (Albumin / Globulin, Gelatine, Petone)

[Turn Over]

4. At least 5 different samples should be prepared and may be marked as A, B, C, D, E.

5. Student should be provide with at least 10 ml of the unknown sample, selection of sample should be through lottery among the students.

6. Selected sample no. should be endersed by the examiner on answer script.

7. Students have to write only the name of the experiments, he/she has performed sequentially, (No principle, Reaction, explanation is required) with corresponding observation & in ference in a tabular format.

8. A sentence mentioning final conclusion must be written by studnets for proper identification.

9. **Marks Distribution :**

For name of the Test	= 2
For corresponding observations	= 2
For inference	= 1
For final conclusion	= 1
	6

10. Students failing in identification of sample should be given few marks, depending upn the properly written name of the test,

observation & inferences. But no markes will be given for final conclusion.

For Question No. 2

Estimation of protein cone. using Lowry's method.

1. The standard curve has to be provided by the centre. Which must be plotted on graph paper (preferably mm) on the basis of minimum 5 correct observations, mentioning OD values & concentration (mg/ml) in two respective axes.

2. **Marks Distribution :**

For correct plotting	= 3
For correct calculation	= 5
For comment	= 1
	9

3. (i) Marks will be deducted for incorrect plotting.

(ii) Marks will be deducted for incorrect calculation.

(iii) Concentration of protein should be expressed in mg/ml.

[Turn Over]

(iv) For correct calculation, value (concentration) variation upto 5% will be permitted for giving full marks.

(v) Value variation upto 20% will be permitted for giving 60% of full marks.

(vi) Value variation upto 30% will be permitted for giving 40% of full marks.

(vii) No credit will be given to the variation more than 30%.

For Question No. 3

1. Students failing to submit LNB should not be allowed any marks for Q. No. 3.

2. Correct content, duly signed by teachers should be credited full marks.

For Question No. 4

1. For Viva-Voce no students will be credited zero.

2. Maximum 6 questions related to practical syllabus of this paper may be asked, however it is solely depended on the discreation of examiner, according to situation.