

NEW

Part II 3-Tier

2017

PHYSIOLOGY

(General)

PAPER—III

(PRACTICAL)

Full Marks : 100

Time : 5 Hours

The figures in the right-hand margin indicate full marks.

Answer all questions.

1. Identify five histological sections focussed under the microscopes, marked as A, B, C, D and E. Give at least one unique identifying character for each section.

[For one unique identifying character = 01,

For Correct Identification = 01]

(Note : If identification is incorrect no credit will be given for identifying character.) 5×2

(Turn Over)

2. Prepare a blood film of your own blood. Stain the slide with Leishman stain and focus a three lobed neutrophil at the center of the field with a magnification of 40X / 45X. Draw a labelled diagram of your observation. 10

*[Blood film = 02,
Staining = 02, Correct focussing = 01,
Correct identification = 03, Diagram = 02]*

3. Collect, tears and properly stain skeletal muscle film by methylene blue stain. Mount it in glycerin and demonstrate the films under the microscope at 40X / 45X magnification. 10

*[Proper tearing of films = 02, Staining = 03
Mounting = 02, Focussing and identification = 03]*

4. Identify the substance provided to you by performing the sequential qualitative tests. Write down the tests in a sequential manner. Perform and write the confirmatory test for the obtained result. 10

*[Performance of sequential tests = 03,
Performance of confirmatory test = 02,
Table of the tests performed = 03,
Procedure for the confirmatory test = 02]*

5. Estimate the percentage of amino nitrogen through Formal-titration method. Write the principle of this method. 10

*[Principle = 02, Procedure = 02, Table = 02,
Calculation = 02, Result and interpretation = 02]*

6. Determine the latent period, contraction period, relaxation period and maximum height of contraction from the supplied sample muscle curve of a toad. 5

*[Latent period = 01, Contraction period = 01,
Relaxation period = 01, Maximum height
of contraction = 01, Interpretation = 01]*

7. Determine the PFI of an individual by Harvard step test method by performing 3 minutes exercise. Take the pulse rate just after exercise. Then given 1 minute rest after finishing the exercise and take at least 3 consecutive readings of recovery Pulse rate at the interval of 1-1½ min, 2-2½ min and 3-3½ min. Plot the results graphically and interpret it. 15

*[Resting pulse rate = 02, Pulse rate just after
exercise = 02, 3 recovery pulse rate = 03,
Plotting = 03, Calculation of PFI = 03,
Interpretation = 02]*

8. Submit Diet Survey Report. 10

[Report should be as per ICMR specification and authenticated by your teacher of the Department.]

[Report = 05, Viva on Report = 05]

9. Submit Laboratory Note Books. 10

[Biochemistry = 04, Histology = 03]

Experimental and Human experiments = 03]

10. Viva voce. 10
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