

OLD

Part-III 3-Tier

2017

ZOOLOGY

(Honours)

PAPER—VII

(PRACTICAL)

Full Marks : 100

Time : 5 Hours

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

Candidates are required to give their answers in their own words as far as practicable.

Answer all questions.

Group—A

1. Prepare a smear of the gut content of cockroach provided. Examine your preparation under a microscope and draw a labelled diagram of the endoparasite observed by you. Identify the parasite stating any three morphological characteristics and the generic name. 15

(Turn Over)

2. (a) Identify the histological slides provided (A and B), stating three salient characters for each slide. 8
- (b) Determine your blood group (ABO and Rh) by means of suitable antigen-antibody reactions. Explain the principle of your test and record your blood group. 7
3. Prepare a smear of the microbial sample provided. Fix and 'Gram stain' the smear. Examine the stained preparation under a microscope and draw a diagram of the bacterium observed by you, stating the generic name. 10

Group—B

(*Biochemistry, Animal Physiology & Biophysics*)

4. Apply 'Chi-square' test for determining the 'goodness of fit' of the offspring ration provided, with the theoretically expected genetic ration. 15

Or

Make an 'analysis of Pedigree' from the given series of genetic crosses.

5. (a) Identify the sample provided by means of suitable qualitative tests. Tabulate your tests (names only), observations and inferences (with reaction wherever necessary). 10

- (b) Estimate the concentration of protein (mg/ml) present in the unknown solution provided, using Lowry's method. Furnish your readings, calculation and inference. 10
- (c) Determine the pH of the water sample provided. Record your result and comment on it. 5

Group—C

(Lab note book & Viva-Voce)

7. Viva Voce. 10
8. Laboratory Note Book. 10
-