

**NEW**

**Part-III 3-Tier**

**2015**

**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. Make a stained preparation of the sample provided. Draw, label and comment on your observation. 8+2+2+3
2. (i) Identify the specimens / prepared slides (A & B) with reasons. 4+4  
(ii) Determine the blood group of the sample provided. Write the principle and comment on your observation with suitable explanation. 3+2+2

*(Turn Over)*

3. Make a 'Gram' stained preparation of the bacterial sample provided and identify the organisms under compound microscope. 8+2

### Group—B

4. Make a 'Chi-square' test of the problem provided. 15

Or

Analysis of Pedigree (Cross to be provided).

5. (i) Identify (qualitative test) the sample provided and make an inference on your observation. 6+4
- (ii) Estimate the amount of protein in unknown solution using 'Lowry' method. 6+4
- (iii) Estimate the pH of a given sample. Comment on your result. 2+3

### Group—C

6. Viva Voce. 10
7. Laboratory Note Book. 10
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**NEW****Part-III 3-Tier****2015****ZOOLOGY****(Honours)****PAPER—VII****(PRACTICAL)***Full Marks : 100**Time : 5 Hours*

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**[Instructions to the Examiners]****Group—A**

1. Gut content of cockroach / seminal vesicle smear from earthworm to be given.

	<u>Marks</u>
(a) Smear preparation	05
(b) Staining / observation	03
(c) Drawing	02
(d) Labelling	02
(e) Comments	03
Total :	<u>15</u>

*(Turn Over)*

2. (i) Prepared slides to be given for identification (any two (2) of the following) :

- (i) Lymph gland.
- (ii) Bursa fabriciosa.
- (iii) Spleen.

	<u>Marks</u>
Identification	01
Key points / Reasons	03
Total :	<u>04</u> × 2 = 8

(ii) Own blood sample to be taken.

[Provide sterilized new needle to every student]

	<u>Marks</u>
(a) Blood group identification	03
(b) Principle	02
(c) Comments	02
Total :	<u>07</u>

3. Microbial (Bacteria) sample to be given for staining.

	<u>Marks</u>
(i) Smear preparation	01
(ii) Staining	07
(iii) Identification	02
Total :	<u>10</u>

**Group—B**

4. Any problem may be given with  $df = 1$ .  
(Standard book to be given for chart)

	<u>Marks</u>
(i) Procedure	10
(ii) Inference	05
Total :	<u>15</u>

Or

Pedigree supplied from any standard book of Genetics.

	<u>Marks</u>
(i) Stepwise analysis	10
(ii) Inference	05
Total :	<u>15</u>

5. (i) & (ii) Samples are to be provided as per syllabus.

	<u>Marks</u>
(i) Identification of the sample	06
(ii) Inference	04
Total :	<u>10×2 = 20</u>

N.B. : Graph paper should be provided to the students for Lowry method.

(iii) Water sample (Acidic/Alkaline) are to be given for pH analysis :

	<u>Marks</u>
(a) Mention the pH of the sample	02
(b) Comment	03
Total :	<u>05</u>

### Group—C

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| 6. Viva-Voce.<br>(Question to be asked as per syllabus)        | 10 |
| 7. Laboratory note book.<br>(Duly signed by the class teacher) | 10 |

N.B. : *Laboratory Note Book of the candidates who secured 80% and more marks (out of 10) should be kept by the examiners.*

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