

**OLD**

**2017**

**Part II 3-Tier**

**PHYSIOLOGY**

**(Honours)**

**PAPER—V**

**(PRACTICAL)**

*Full Marks : 100*

*Time : 5 Hours*

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

*Answer all questions.*

1. Identify *five* unknown histological permanent slides marked A — E focus under microscope and write main two identifying characters. 2×5

[Correct identification of each slides — 1, Two main identifying characters of each slides —  $\frac{1}{2} + \frac{1}{2} = 1$ ]

(Note : No credit will be given for identifying character with incorrect identification).

*(Turn Over)*

2. Collect, spread and properly stain supplied adipose tissue using alcoholic Sudan III solution. Counter stain with methylene blue after rinsing in 50% alcohol. Mount and observe under the microscope. Draw and label the observed field of focus. 10

*(Staining : Sudan III - 03, Counter stain - 01,  
Mounting - 01, Focussing - 02,  
Drawing - 02, Labelling - 01)*

3. Prepare a blood film of your own blood. Properly stain it with Leishman stain and observe under high power (400X) of microscope. Focus, identify a monocyte. Measure its diameter using micrometer scale. 10

*(Blood film preparation - 01, Staining - 04,  
Focussing and Identification - 02,  
Measurement with tabular result - 03)*

4. Stain properly with Hematoxylin and Eosin the supplied paraffine section of mamaline tissue. Mount properly and made permanent. Write two main identifying characters and identify properly your supplied slide. Write the flow chart of your preparation. 15

*[Deparaffiniration - 02, H/E stain - 02 + 02,*

*Mount and clearing 01 + 01 = 02, Identification - 02,  
 Identifying characters 01 + 01 = 02,  
 Flow chart of H/E tissue staining - 03]*

5. Identify the supplied biochemical sample with proper systematic qualitative analysis and confirm it with suitable confirmatory test. 15

*[Systematic analysis - 08,  
 Detailed confirmatory test - 05,  
 Correct identification - 02]*

6. Determine the normality of supplied HCl solution by titrating it against standard  $\frac{N}{10}$  NaOH solution. 10

*[Principle - 02, Procedure - 02,  
 Result with tabulation - 05, Calculation - 01]  
 Accuracy as per error upto 5% - 5,  
 Error above 5% to 10% - 3,  
 Error above 10% to 20% - 1,  
 Above 20% - 0]*

7. Submission of authenticated report on the basis of a visit to higher learning centre. 10

*[Printed Report - 06, Viva - 04]*

8. Submission of duly signed Laboratory Note Books.  
(Histology - 06, Biochemistry - 04) 10

9. Viva-Voce. 10
-

**OLD**

**2017**

**Part II 3-Tier**

**PHYSIOLOGY**

**(Honours)**

**PAPER—V**

**(PRACTICAL)**

*Full Marks : 100*

*Time : 6 Hours*

*The figures in the right-hand margin indicate full pmarks.*

***Instructions to the Examiners***

1. Only one histological tissue section will be chosen from each of the following groups and to be recorded in the key khata for each day of examination.

A : Tongue, Esophagus, Stomach, Duodenum, Jejunum,  
Large intestine.

B : Bone, Cartilage, Trachea, Lung, Spleen, Lymph  
Gland.

*(Turn Over)*

C : Liver, Kidney, Pancreas, Adrenal gland, Thyroid gland.

D : Testis, Ovary, Uterus, Artery, Vein.

E : Spinal Cord, Cerebral cortex, Cerebellum, Skin, Skeletal muscle, Cardiac muscle.

(i) 1 minute for each slide identification. Extra 1 minute to be given for completion of writing.

(ii) Marks distribution as per question.

(iii) In case of more than one day of examination at least three slides out of five must be changed from the previous day of examination. This is for all successive days of examination at the centre.

(iv) If identification is incorrect, no credit will be given for identifying character.

2. As per questions and examiner's discretion.

3. As per questions and examiner's discretion.

4. As per question and examiner's discretion.

5. (i) Importance should be given on staining, mounting and clearing of the submitted permanent slides.

- (ii) No marks for slide without teacher's signature.
6. (i) No marks should be given in case of wrong identification.
- (ii) Marking will be done as per question and examiner's discretion.
7. At least two variants of sample must be supplied in each day. Remaining part of markings as per question and examiner's discretion.
8. As per question and examiner's discretion.
9. (i) Markings as per questions.
- (ii) Special weightage to be given for regular signature of the teacher.
- (iii) No markings for unsinged note books.
10. During viva-voce following instruments are to be displayed—
- (i) Burette, (ii) Pipette, (iii) Volumetric flask, (iv) Conical flask, (v) Beaker, (vi) Haemoglobinometer, (vii) Hemocytometer and (viii) compound microscope.

Marking :

- (a) Naming of the instruments = 01.
- (b) Use of the instruments = 01.
- (c) Questions from the practical performed and related fields as per discretion of the examiners.

**Post Examination Instruction**

1. All examiners are requested to submit their specimen signature, full name, address and contact number.
2. Examiners are requested to submit the following items to the Head Examiner :
  - (a) Sample key book which contains the name of histological slides for Q.No. 6, 7 and 8.
  - (b) Marks key which contains the part marks of all questions after signatures of the examiners.
  - (c) Copy of student's attendance sheet.
  - (d) Evaluated answerscripts with examiner's signatures.
  - (e) Award lists signed by the examiners.
  - (f) Any other paper or statement as desired by the examiners, if any.