

This question paper contains 3 printed pages.

4419

Your Roll No.

Subsidiary for B.Sc. Honours / I AS

ZOOLOGY— Paper II

(Developmental Biology and Histology)

(Admissions of 2004 and onwards)

Time : 3 hours

Maximum Marks : 50

*(Write your Roll No. on the top immediately
on receipt of this question paper.)*

*Attempt five questions in all, including Question No. 1
which is compulsory. Attempt any two questions
each from Section A and Section B.*

1. (a) Define the following:

- (i) Kupffer's cells
- (ii) Morphallaxis
- (iii) Macrolecithal egg
- (iv) Hensen's node.

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(b) Fill in the blanks:

- (i) β -cells of islets of Langerhans secrete the hormone
- (ii) Neuroglia cells are found in

P. T. O.

- (iii) is the only organ in human body meant for filtering blood.
- (iv) Sertoli cells are located in 4
- (c) Distinguish between the following:
- (i) Fertilizin and antifertilizin
- (ii) Artery and vein
- (iii) Area space and Area pellucid
- (iv) Glisson's capsule and Bowman's capsule ... 4
- (d) Indicate the location and function of:
- (i) Interstitial cells of Leydig
- (ii) Parietal/Oxyntic cells ... 2

SECTION A

2. Describe the various patterns of cleavage giving suitable examples and diagrams. 9
3. Describe the process of spermatogenesis with special reference to spermiogenesis. How does it differ from oogenesis? 9
4. Write short notes on any *three*:
- (i) Cortical reactions
- (ii) Gastrulation in frog
- (iii) Structure and functions of Amnion

- (iv) Egg membranes. 9

SECTION B

5. With the help of a suitable diagram describe the histological structure and functions of stomach. 9

6. Describe the histology of any *two* of the following:

(i) Spleen

(ii) Kidney

(iii) Pancreas. 4½, 4½

7. Draw neat labelled diagrams of any *two* of the following:

(i) T.S. spinal cord

(ii) T.S. liver

(iii) T.S. rectum. 4½, 4½