



M 7593

Reg. No. :

Name :

III Semester B.Sc. Degree (CCSS – Reg./Supple./Imp.)
Examination, November 2014
CORE COURSE IN ZOOLOGY
3B03 ZLG : Cytology and Immunology
(2010 Admission Onwards)

Time : 3 Hours

Max. Weightage : 25

Instruction : Draw diagram wherever necessary.

SECTION – A

I. Essay (answer **any one**) : **(Weight. 4)**

- 1) Explain the structure and functions of ribosomes.
- 2) Compare and contrast spermatogenesis and oogenesis. **(1×4=4)**

II. Essay (answer **any one**) : **(Weight. 4)**

- 3) Give an account on the structure and function of plasma membrane.
- 4) Describe parthenogenesis. Comment on different types of parthenogenesis. **(1×4=4)**

III. Short essay (answer **any one**) : **(Weight. 2)**

- 5) Differentiate between meiosis and mitosis.
- 6) Discuss on benign and malignant tumours. **(1×2=2)**

IV. Short answers (answer **any four**) : **(Weight. 1)**

- 7) State cell theory.
- 8) Give names of any two fixatives.
- 9) Comment on prions.
- 10) What are vital stains ? Give example.
- 11) What are microbodies ? What are their functions ?
- 12) Define transmembrane transport and vesicular transport.
- 13) Comment of fixation and its aims. **(4×1=4)**

P.T.O.



V. Answer the following :

(Wt : 1 each)

- 14) a) _____ is a stain used in electron microscopy.
 b) _____ micrometer is used in eyepiece.
 c) Protein synthesis takes place in _____ present in cytoplasm.
 d) _____ is a connective tissue.

15) Match the following :

- | | | |
|-----------------------------|---|-----------------|
| a) Leptotene | : | Cell line |
| b) L-cells | : | Golgi complex |
| c) Cellular secretion | : | Mitosis |
| d) Electron transport chain | : | Parthenogenesis |
| | : | Mitochondria |
| | : | Meiosis |

(2×1=2)

SECTION – B
(Immunology)

VI. Answer any two :

(Wt : 4)

- 16) What are antibodies ? What are their function ?
 17) Comment on haptens.
 18) Account on autoimmune reactions.

19) Distinguish between natural and acquired immunity.

(2×4=8)

VII.20) Fill in the blanks :

(Wt. 1)

- a) _____ is an autoimmune disease.
 b) _____ is a class of antibody.
 c) _____ are also called incomplete antigens.
 d) _____ cells are involved in cell mediated immunity.

(1×1=1)