

K18U 1529

Reg. No. : .....

Name : .....

V Semester B.Sc. Degree (CBCSS – Reg./Sup./Imp.)

Examination, November 2018

(2014 Admn. Onwards)

CORE COURSE IN ZOOLOGY

5 B07 ZLG : Cell Biology and Immunology

Time : 3 Hours

Max. Marks : 40

PART – A

Cytology

I. Answer any two.

(2×8=16)

- 1) Explain on Giant chromosomes.
- 2) Briefly explain various histological techniques.
- 3) Write an account on Parthenogenesis.
- 4) Describe the process of spermatogenesis.

II. Answer any two.

(2×3=6)

- 5) Explain on Mitochondria.
- 6) Make a note on White Blood Cells.
- 7) Explain on Interphase nucleus.
- 8) Comment on Cell Cycle.

III. Answer any six.

(6×1=6)

- 9) Crossing Over.
- 10) Metastasis.
- 11) Mycoplasma.
- 12) Vital stains.
- 13) Gap junction.

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- 14) Polysome.
- 15) Peroxisomes.
- 16) Cell Theory.

IV. Answer **all** the following :

(4×1=4)

- 17) a) Which of the following is used as a stain for electron microscopy ?
  - i) Lead acetate
  - ii) Janus green
  - iii) Neutral red
  - iv) Rhodamine
- b) DNA duplication occurs in which stage of cell cycle
  - i) G1
  - ii) S
  - iii) G2
  - iv) M
- c) Which of the following cell secrete histamine ?
  - i) Mast cell
  - ii) Lymphocyte
  - iii) RBC
  - iv) Mesenchyme cell
- d) Acrosome of the sperm is formed from
  - i) Ribosome
  - ii) Lysosome
  - iii) Golgi bodies
  - iv) Peroxisome

**PART – B**  
**Immunology**

V. Answer **any two** of the following :

(2×2=4)

- 18) Immune response.
- 19) Immunity.
- 20) HLA typing.
- 21) Allograft rejection.

VI. Answer **any one** of the following :

(1×4=4)

- 22) Give a brief account on allergy, anaphylaxis and autoimmune reactions.
- 23) Explain the structure of antibody ; mention its classification and functions.



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Reg. No. : .....

Name : .....

**V Semester B.Sc. Degree (CBCSS – Reg./Sup./Imp.)**

**Examination, November 2017**

**(2014 Admn. Onwards)**

**CORE COURSE IN ZOOLOGY**

**5B07 ZLG : Cell Biology and Immunology**

Time : 3 Hours

Max. Marks : 40

**PART – A**

**Cytology**

I. Answer any one : (1×8=8)

- 1) Explain the structure and functions of Ribosomes and Lysosomes.
- 2) Describe the process of Spermatogenesis and Oogenesis.

II. Answer any one : (1×8=8)

- 3) Explain on Cancer.
- 4) Explain the different types of Connective tissue cells.

III. Answer any two : (2×3=6)

- 5) Note on polytene chromosomes.
- 6) Explain Cell Cycle.
- 7) Explain Parthenogenesis.
- 8) Note on mitochondria.

IV. Answer any six : (6×1=6)

- 9) Stem cells.
- 10) Mycoplasma.
- 11) Viroids.
- 12) Cell theory.

P.T.O.





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- 13) Glyoxysomes.
- 14) Tight junctions.
- 15) Fixatives.
- 16) Metastasis.

(4×1=4)

V. 17) Answer **all** the following :

a) Endosymbiont hypothesis was related to

- 1) Chloroplast
- 2) Mitochondria
- 3) Ribosome
- 4) Both 1) and 2)

b) Which one of the following cell secrete histamine ?

- 1) Mast Cell
- 2) Fibroblast
- 3) Plasma cell
- 4) Macrophages

c) Which one of the following is a function of Lysosome ?

- 1) Cell division
- 2) Protein synthesis
- 3) Heterophagy
- 4) Fat storage

d) The basic amino acid associated with histones is

- 1) Glycine
- 2) Lysine
- 3) Arginine
- 4) Both 2) and 3)

### PART - B

### Immunology

VI. Answer **any two** of the following :

(2×2=4)

- 18) Structure of Antibody.
- 19) Note on opsonisation.
- 20) Allograft rejection.
- 21) Major Histocompatibility Complex.

VII. Answer **any one** of the following :

(1×4=4)

- 22) Explain on hypersensitivity.
- 23) Explain on the type of immunity.