



(Pages : 2)

E – 3405

Reg. No. :

Name :

Fourth Semester B.Sc. Degree Examination, July 2018
First Degree Programme under CBCSS
ZOOLOGY
Core Course IV
ZO 1441 – Cell Biology
(2015 Admn. Onwards)

Time : 3 Hours

Max. Marks : 80

I. Answer the following questions (In **one** or **two** sentences. **One** mark **each**) :

- 1) Cell theory
- 2) Oncogenes
- 3) G₀ Phase
- 4) Pinocytosis
- 5) SAT-Chromosomes
- 6) cAMP
- 7) Antiport
- 8) Amitosis
- 9) Apoptosis
- 10) Glycocalyx.

(10×1=10 Marks)

II. Answer **any eight** of the following (Not to exceed **one** paragraph. **Each** carries **two** marks).

- 11) Lamp Brush Chromosomes.
- 12) Functions of Golgi Complex.
- 13) 70s Ribosomes.
- 14) Steps in Signal Transduction.
- 15) Structure of Proteosomes.
- 16) Nucleolar Organizer.

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E – 3405



- 17) Polyribosomes.
- 18) Mitosis.
- 19) Functions of Microfilaments.
- 20) Types of Heterochromatin.
- 21) Role of cAMP in cell signaling.
- 22) Nucleosome.

(2×8=16 Marks)

III. Answer **any six** of the following (Not to exceed **120** words. **Each** carries **four** marks).

- 23) Compare Eukaryotic and Prokaryotic Cell.
- 24) Write on Nuclear pore complex.
- 25) Characteristics of Cancer cells.
- 26) Differentiate Mitosis and Meiosis.
- 27) Causes of Aging.
- 28) Interphase of Cell Cycle.
- 29) Electron Transport Chain.
- 30) Passive transport across Plasma membrane.
- 31) Metaphase Chromosome.

(4×6=24 Marks)

IV. Answer **any two** of the following (**each** carries **15** marks) :

- 32) Describe the structure and functions of Plasma membrane.
- 33) Write an essay on Cytoskeleton.
- 34) Describe the structure and chemical composition of chromosomes.
- 35) Describe the structure and functions of Endoplasmic Reticulum.

(15×2=30 Marks)
