2017

(5th Semester)

ZOOLOGY

Paper : ZL–V

(Cell Biology)

Full Marks : 55

Time : 2½ hours

(PART : B—DESCRIPTIVE)

(*Marks* : 35)

The figures in the margin indicate full marks for the questions

1. What is prokaryotic cell? Give a comparative account of the structures of prokaryotic cell and eukaryotic cell. 2+5=7

Or

Discuss the facilitated diffusions of membrane transport with example. 7

2. What is Golgi complex? Describe its structure, composition and functions. 1+2+2+2=7

Or

Describe the structure and chemical composition of ribosome. 3½+3½=7

3. Give an account of the structure and function of mitochondria. 3½+3½=7

Or

Write notes on microfilaments and intermediate filaments. 3½+3½=7

4. Discuss in detail the transport of molecules across nuclear membrane. 3½+3½=7

Or

Write short notes on the following : 3½+3½=7

(a) Cell-cell interactions

(b) Cell junctions

5. With a neat labeled diagram, describe different stages of meiosis–1. 7

Or

Define cancer. What are different types of cancer? 1+6=7

★★★

Subject Code : ZOO/V/05

Booklet No. A

Date Stamp .....

.....

To be filled in by the Candidate

DEGREE 5th Semester
(Arts / Science / Commerce / .....) Exam., **2017**

Subject .....

Paper .....

INSTRUCTIONS TO CANDIDATES

1. **The Booklet No. of this script should be quoted in the answer script meant for descriptive type questions and vice versa.**
2. **This paper should be ANSWERED FIRST and submitted within** *45 minutes* **of the commencement of the Examination.**
3. **While answering the questions of this booklet, any cutting, erasing, over-writing or furnishing more than one answer is prohibited. Any rough work, if required, should be done only on the main Answer Book. Instructions given in each question should be followed for answering that question only.**

To be filled in by the Candidate

DEGREE 5th Semester
(Arts / Science / Commerce / .....) Exam., **2017**

Roll No. .....

Regn. No. .....

Subject .....

Paper .....

Descriptive Type

Booklet No. B .....

Signature of Scrutiniser(s)

Signature of Examiner(s)

Signature of Invigilator(s)

/227

2 0 1 7

(5th Semester)

ZOOLOGY

Paper : ZL–V

(Cell Biology)

(PART : A—OBJECTIVE)

(*Marks* : 20)

The figures in the margin indicate full marks for the questions

SECTION—A

(*Marks* : 5)

Put a Tick (✓) mark against the correct answer in the brackets provided : 1×5=5

1. Transport of molecules across the membrane that takes place without the help of any permease is called

(a) simple diffusion ( )

(b) active diffusion ( )

(c) facilitated diffusion ( )

(d) All of the above ( )

2. The non-specific uptake of small droplets of extracellular fluids by endocytic vesicles is known as

(a) phagocytosis ( )

(b) pinocytosis ( )

(c) receptor-mediated endocytosis ( )

(d) exocytosis ( )

3. The main structural protein of microfilament is

(a) lamin ( )

(b) desmin ( )

(c) tubulin ( )

(d) actin ( )

4. The chromatids of the paired homologous chromosomes are joined at one or more discrete points called

(a) telomeres ( )

(b) chromomeres ( )

(c) chiasmata ( )

(d) chromonemata ( )

5. During meiosis and mitosis, the nucleolus disappears during

(a) telophase ( )

(b) metaphase ( )

(c) anaphase ( )

(d) prophase ( )

SECTION—B

(*Marks* : 15)

Write short notes on the following in not more than *5* to *8* sentences each : 3×5=15

1. Limitation of Cell Theory

2. Lysosome

3. Microtubule

4. Different morphological types of chromosomes according to the position of the centromere

5. Carcinogens

★ ★ ★