

Roll No. :

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

BFMS-413

M.Sc. (Final) Examination, 2023

ZOOLOGY

Paper - VII(a)

(Cell Biology)

Time : 3 Hours]

[Maximum Marks : 75

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

Section-B

(Marks : 5 × 5 = 25)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **5** marks.

Section-C

(Marks : 10 × 3 = 30)

Note :- Answer any *three* questions out of five (Answer limit **500** words). Each question carries **10** marks.

Section-A

1. (i) Who proposed cell theory ?
- (ii) What are apocrine glands ?
- (iii) What is sodium-potassium pump ?

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- (iv) Name *two* organelles having extra-nuclear DNA.
- (v) What is the function of histone proteins ?
- (vi) Draw a labelled diagram of F_1 particle.
- (vii) What is nucleosome solenoid model ?
- (viii) Define supernumerary chromosomes.
- (ix) Differentiate between lytic and lysogenic cycle.
- (x) What are proto-oncogenes ?

Section–B

2. Briefly describe structure of blood cells.

Or

Write a note on electrokinetic properties of plasma membrane.

3. Briefly describe structural organization and function of RER.

Or

Write a short note on Nucleus.

4. Draw neat and labelled diagram of various stages of Mitosis.

Or

Write a note on the mitotic poisons.

5. Which chromosomes are known as giant chromosomes ? Briefly describe any one of them.

Or

Write a note on transposons.

6. Briefly describe pathogen induced diseases in animals.

Or

Write a note on entry process of viruses in animal cells.

Section-C

7. Give a detailed account of various models of plasma membrane.
8. Give a detailed structural and functional account of mitochondria.
9. Write an essay on physiology of union of gametes.
10. What do you understand by chromosomal aberrations ? Describe structural chromosomal aberrations.
11. Elaborately discuss genetics of Cancer.