

M. Sc. DEGREE EXAMINATION, NOVEMBER 2016
BIOINFORMATICS
FIRST SEMESTER

COURSE : ELECTIVE

PAPER : CELL BIOLOGY AND GENETICS

TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

I. ANSWER ALL THE QUESTIONS

20 x 1 = 20

1. Incipient Nucleus
2. Mesosome
3. Virion
4. Reduction cell division
5. Elementary particles
6. Nucleotide and nucleoside
7. 16SrRNA
8. Repeated sequences
9. Glycocalyx
10. Plasmodesmata
11. Aquaporins
12. Peptidoglycan
13. Psuedo alleles
14. Complete linkage
15. Two point test cross
16. Nuclease and ligase
17. Idiogram
18. XX – XY type
19. Barr body
20. Cris-cross inheritance

SECTION – B**II. ANSWER ANY FOUR QUESTIONS****4x10=40**

21. Draw labeled diagram only on various sub stages of Prophase I.
22. Illustrate and explain the lytic life cycle of bacteriophage.
23. Give an account on the structure and functions of chloroplast.
24. Comment on the various post translational modifications.
25. Explain the valid model depicting plasma membrane structure.
26. Bring out the various features of multiple alleles. Mention its different forms found in blood groups.

SECTION – C**III. ANSWER ALL THE QUESTIONS****2x20=40**

27. (a) Explain in detail about molecular organization of chromosome.
Or
(b) Describe the structure and chemistry of cell walls in plants.
28. (a) Elaborate on the steps of gene mapping.
Or
(b) Bring out the details on chromosomal mechanism of sex determination.
