E 1772

Reg. No............................

Name...............................

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, OCTOBER 2015

Fifth Semester

Core Course—CELL BIOLOGY AND MOLECULAR BIOLOGY

(Common for B.Sc. Chemistry Model I and Model II B.Sc. Industrial Microbiology and Zoology and B.Sc. BT and SP)

[2013 Admissions]

Time : Three Hours

Maximum : 60 Marks

Part A

Answer all questions.
Each questions carries 1 mark.

1. What are Prions ?
2. What is Tubulin ?
3. What are SAT chromosomes ?
4. Define Pseudogenes.
5. What is polynucleotide ?
6. Give *two* characteristics of genetic code.
7. What are split genes ?
8. What is Muton ?

$(8 \times 1 = 8)$

Part B

Answer any six questions.
Each question carries 2 marks.

9. List the major functions of Golgi body.
10. What are Desmosomes ?
11. What is the difference between Heterochromatin and Euchromatin ?
12. What is GERL concept ?
13. Define one gene-one enzyme hypothesis.
14. What do you mean by cell recognition ?
15. What are the functions of cyclie AMP ?
16. Define Allosteric Feed Back Inhibition.

Turn over

17. Discuss the contributions of the Gobind Kherana.

18. Draw a diagram of Mitochondria and label the parts.

$(6 \times 2 = 12)$

Part C

Answer any four questions.
Each question carries 4 marks.

19. Give a brief account on eukaryotic gene regulation.

20. Why plasma membrane is called quasi fluid membrane ?

21. Compare Ribsomes and Prokaryotes and Eukaryotes.

22. What are the types of cell signalling ?

23. Write an account on the types of RNA. Discuss their functions.

24. Give an account of Polytene chromosomes.

$(4 \times 4 = 16)$

Part D

Answer any two questions.
Each question carries 12 marks.

25. Give an account on the mechanism of protein synthesis in Eukaryotes.

26. Bring out the differences between Mitosis and Meiosis. Illustrate your answers.

27. Describe polymorphism in Lysosomes.

28. Explain the structure and functions of nucleus and its components.

$(2 \times 12 = 24)$