QP CODE: 19102486

19102486

Reg No : .....

Name : .....

BSc DEGREE (CBCS) EXAMINATION, OCTOBER 2019

Fifth Semester

Core Course - ZY5CRT06 - CELL BIOLOGY & GENETICS

(Common to B.Sc Biological Techniques and Specimen Preparation Model III ,B.Sc Zoology and Industrial Microbiology Model III Double Main ,B.Sc Zoology Model I ,B.Sc Zoology Model II Aquaculture ,B.Sc Zoology Model II Medical Microbiology)

2017 Admission Onwards

62F2D1D8

Maximum Marks: 60 Time: 3 Hours

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. What is nucleoid?
2. Explain sodium pump.
3. What are ribophorins
4. Give any one function of nucleolus.
5. What is autocrine signalling? Give an example.
6. Why polygenic inhertitance is known as quantitaive inheritance?
7. What are the probable blood groups of the children if both the parents are having AB blood groups?
8. Define complete linkage
9. What is the basic difference between a sex limited gene and sex linked gene?
10. Differentiate between paracentric and pericentric inversions.
11. How many groups are present in a human karyotype?
12. Give an example for polygenic discorder.

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Comment on various functions of lysosomes

14. DNA is packaged into Chromosomes. Explain the statement.

15. Briefly explain the different phases of a cell cycle with the help of a neat diagram.

16. Explain Incomplete dominance with a suitable example.

17. Explain dominant epistasis with a suitable example.

18. Describe the Environmental mechanism of Sex determination

19. Explain how the mechanism of crossing over bring about recombination

20. Give an account of structural aberrations of chromosome

21. Explain Sickle Cell anemia

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Give an acount on the various models of plasma membrane.

23. State Mendelian laws of genetics.Explain the laws with the help of a dihybrid cross

24. Explain any three different types of sex determination mechanism seen in animals.

25. What are the types of chromosomal abnormalities in man? Explain with examples.

(2×10=20)