

QP CODE: 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 inheritance is known as quantitative 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 disorder.

(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 account 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)

