QP CODE: 22101836

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Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) SPECIAL SUPPLEMENTARY EXAMINATIONS, MAY 2022

Fifth Semester

CORE COURSE - ZY5CRT06 - CELL BIOLOGY & GENETICS

Common for B.Sc Zoology Model I, B.Sc Zoology Model II Aquaculture, B.Sc Zoology Model II Food Microbiology, B.Sc Zoology Model II Medical Microbiology, B.Sc Biological Techniques and Specimen Preparation Model III & B.Sc Zoology and Industrial Microbiology Model III Double Main

2019 Admission Only

66E0D221

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. Write the characteristics of virus.
2. Define osmosis.
3. Name four endoplasmic reticulum chaperone proteins
4. Give any one function of nucleolus.
5. What is called M phase in cellcycle?
6. Give an example of polygenic inheritance
7. Why is O blood group considered to be universal donor?
8. State whether true or false: If false, write the correct statement. ‘The longer the chromosome, the lesser the number of chiasmata’.
9. What is the functional difference between sex influenced gene and sex limited gene?
10. Explain Aneuploidy
11. Comment on albinism
12. What is euthenics

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Write short note on the protein complexes on inner mitochondrial membrane
14. Comment on polytene chromosomes.
15. What are receptors? Write a short note on cell surface receptors.
16. Explain in detail the law of chromosomal theory of inheritance.
17. Explain supplementary genes with a suitable example.
18. Distinguish male heterogamy from female heterogamy ,giving examples.
19. What are Barr bodies? Why are they called so?
20. Explain Down Syndrome and Cri-du-Chat syndrome
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. Write an essay on the various allelic interactions with suitable examples.
24. Explain sex linked inheritance with hemophilia as an example
25. Describe in detail the different types of chromosomal aberrations.

(2×10=20)