

M E S ASMABI COLLEGE, P. VEMBALLUR

VI SEMESTER B.Sc. DEGREE (AQUACULTURE)

INTERNAL EXAMINATION - FEBRUARY 2023

AQC6 B17- FISH GENETICS, BIOTECHNOLOGY & BIOINFORMATICS

TIME: 2 HRS

MAXIMUM MARKS: 60

Section A

(Each question carries 2 Marks. Answer any 10 questions. All questions can be answered.
Ceiling – 20 Marks)

1. Comment on capsule in bacterial cells.
2. Give the functions of Golgi complex and mitochondrion in a cell.
3. Compare the nucleus in prokaryotic and eukaryotic cells.
4. List the components of cytoskeleton.
5. How many polar bodies are formed during meiosis in female? Explain.
6. Compare cytokinesis in animal cell and plant cell.
7. Explain the terms genotype and phenotype.
8. State Mendel's law of segregation.
9. What is a dihybrid?
10. Define the term gene.
11. Explain haploidy and diploidy.
12. Give the functions of intermediate filaments.

Section B

(Each question carries 5 Marks. Answer any 6 questions. All questions can be answered.
Ceiling 30 Marks)

13. Explain glyoxysomes and peroxisomes.
14. Give an account of euchromatin and heterochromatin.
15. Outline the steps in cell cycle with a suitable diagram.
16. Describe different steps involved in mitosis.
17. Draw labeled diagram of a typical chromosomes. Explain types of chromosomes based on centromere position.
18. Give a comparative account of eukaryotic and prokaryotic cells.
19. Explain Mendel's law of independent assortment with an example.


Section C

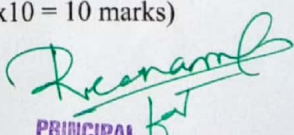
((Answer *any one* question. Each question carries 10 Marks.))

20. Explain the structure of a typical animal cell with the help of a labeled diagram.
21. Explain cytoskeleton, its components and functions.

(1 x10 = 10 marks)




HEAD
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