Reg. No ..... Name **19P2049**

MSc DEGREE END SEMESTER EXAMINATION - MARCH/APRIL 2019

SEMESTER 2 : AQUACULTURE AND FISH PROCESSING

COURSE : **16P2AQCT08 : GENETICS AND BIOTECHNOLOGY OF FINFISH AND SHELL FISH**

(For Regular - 2018 Admission and Supplementary - 2017/2016 Admissions)

Time : Three Hours Max. Marks: 75

Section A

Answer any 8 (2 marks each)

1. Genome
2. Aneuploidy
3. Chromosome banding
4. Differentiate heterochromatin and euchromatin
5. Gynogenesis and Adrogenesis
6. Induction of polyploidy
7. Intercalating agents
8. Sequencing
9. Natural hybridization in fishes
10. Genome sequencing
11. Fermentation
12. Semiconservative model of DNA replication

(2 x 8 = 16)

Section B

Answer any 7 (5 marks each)

13. Factors affecting selective breeding programme
14. Inbreeding and cross breeding
15. Methods of gene cloning
16. Selection methods
17. Advantages of culture of triploid fishes
18. Role of steroids in sex reversal
19. What is the method of producing all male population of *Macrobrachium rosenbergii*
20. Bioferilizaiton
21. Hybridoma technology
22. RT PCR

(5 x 7 = 35)

Section C

Answer any 2 (12 marks each)

23. Properties of genetic code
24. Explain monosex population and strategies adopted to produce the same.
25. Genetic improvement programme
26. PCR and its applications in disease diagnosis

(12 x 2 = 24)