

5/H-36 (vi) (Syllabus-2015)

2022

(November)

FISHERY SCIENCE

(Honours)

SIXTH PAPER (Paper-6A)

(Fish Physiology, Biochemistry and
Applied Genetics)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer Question No. 1 which is compulsory and
any four from the rest.

1. Write short notes on any three of the
following : 4×3=12

- (a) Androgenesis
- (b) Glycolysis
- (c) Transgenesis
- (d) Genetic drift
- (e) Islets of Langerhans

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(Turn Over)

2. What are enzymes? Write the classification of enzymes based on their reaction specificity. 3+8=11

3. What are essential and non-essential amino acids? Describe the general chemical composition of proteins. Write the biological significance of proteins. 3+4+4=11

4. What is gluconeogenesis? Write down all the steps of citric acid cycle and mention the enzymes involved in each step. 2+9=11

5. Write down the composition of fish blood. Explain in detail different cellular compositions found in the fish blood along with their function. 4+7=11

6. Describe in detail the digestion process in fish. 11

7. Discuss the gonadal systems in fish. Write the hormones secreted by fish gonad and their functions with examples. 4+5+2=11

8. Write short notes on any *two* of the following: 5½×2=11
 - (a) Hybridization vs selective breeding
 - (b) Triploidy and tetraploidy
 - (c) Mechanism of urine formation

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