

2015

M.Sc.

3rd Semester Examination

FISHERIES SCIENCE

PAPER—FSC-301

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Unit-I

(Fish Histology and Bio-Chemistry)

1. Write short notes on any *two* of the following questions :

2×2

- (a) Mucus producing cells of skin ;
- (b) Peptide bonds ;
- (c) Irreversible reactions of glycolysis ;
- (d) Kupffer Cells.

(Turn Over)

2. Answer any *two* of the following : 2×4
- (a) Write a note on the histological structure of epidermis.
 - (b) Briefly write on different stressors towards fish liver.
 - (c) Discuss different types of reactions in the Embden Meyerhof pathway.
 - (d) Name the enzymes catalyzing the different steps of glycolysis.
3. Answer any *one* of the following questions : 1×8
- (a) Give an account of the morphology and histology of normal teleost liver.
 - (b) What is TCA cycle? Describe the steps of Citric Acid cycle.

Unit-II

(Bioinformatics, Remote sensing and GIS)

4. Answer any *two* of the follow questins : 2×2
- (a) What is remote sensing image?
 - (b) Define Pixels.
 - (c) What is Ground Control Point (GCP) in remote sensing technology?
 - (d) Define swath of a satellite.

5. Answer any *two* of the following questions : 2×4
- (a) How oil pollution detection is done through Remote Sensing ? 4
 - (b) Define SST and its importance in fish catch. 4
 - (c) How air borne lidar and vessel Echosounder /Sonar is used to spot and measure fish schools? 2+2
 - (d) Discuss the process of remote sensing. 4
6. Answer any *one* question of the following : 1×8
- (a) Write down the importance of spectral :
 - (i) Signature in relation to ocean fishing.
 - (ii) Discuss the application of SeaWiFS, MODIS, NOAA-AVHRR data in prediction of Potential Fishing Zones (PFZ). 4+4
 - (b) Give an account of the application of remote sensing in fisheries and aquaculture. 8
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