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RNLKWC/M.Sc.-CBCS/IIIS/ZOO-303/22

**2022**

**Zoology**

**[P.G.]**

**(CBCS)**

**(M.Sc. Third Semester End Examination-2022)**

**PAPER-303**

**(Fishery Special)**

**Full Marks:40**

**Time: 02 Hrs**

*The figures in the right hand margin indicate marks*

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

*Illustrate the answers wherever necessary*

**Group-A**

**[Ichthyotaxunomy & Biology]**

- 1. Answer any two questions of the following: 2x2= 4**
- a) Differentiate between monogenetic and digenetic trematodes.
  - b) Write name of two potamodromus fish.
  - c) Name two commercially important estuarine fishes.
  - d) Define penderal index.
- 2. Answer any two questions of the following: 2x4 = 8**
- a) Write briefly the history fo Indian fishery.

(2)

- b) Write a brief note on fish disease caused by protozoan ciliates.
- c) What is Hardy's square method?
- d) Write about list caused best buy technique.

3. Answer any one question of the following:  $1 \times 8 = 8$

- a) What is FCR, FCE, PER and NPK? Calculate the PER and FCR value and comment on your result when No of fishes - 20, Weight of each fish 13.5 gm (initial) and 16.5 gm (Final).

Duration of experimental trial -2weeks, Feed given @ 6% body Wt.

Protein percentage in the feed 40%  $4+4$

- b) Write on any bacterial disease of fresh water fish mentioning causative agent, symptoms and treatment.  $8$

### Group-B

#### [Oceanography]

4. Answer any two questions of the following:  $2 \times 2 = 4$

- a) Write about sources of oceanic pollution.
- b) Define plankton and nekton with example
- c) 'Ocean are reservoir of one green house gas' explain it.
- d) What do you mean by thermocline and halocline.

(3)

5. Answer any two questions of the following:  $2 \times 4 = 8$

- a) What is upwelling? Write its importance in fishery.
- b) Write about the problem due to oceanic pollution and its remedial measures.
- c) What is density of water? Write its relationship with salinity, temperature and pressure.
- d) Write down the chemistry of water molecule

6. Answer any one question of the following:  $1 \times 8 = 8$

- a) Write about the zonation of sea with the help of diagram and description.
- b) Short note on i) Nutrient cycle in ocean  
ii) Daily vertical migration of zoo plankton.  $4+4$