R6777	Sub. Code
	547201

M.Sc. DEGREE EAMINATION, APRIL – 2022

Second Semester

Fisheries Science

FISHING CRAFT AND GEARS

(CBCS – 2021 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Vallam
2. FRP
3. Webbing
4. Floats
5. Pelagic zone
6. GPS navigator
7. Purse seine
8. Deep sea
9. Over fishing
10. CRZ

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Outline the classification of fishing craft.

Or

(b) Comment on Trapezodial rule.

12. (a) Brief about target and untargeted fishing practice in India.

Or

(b) Summarize about Tonnage system and its types.

13. (a) Comments on inland fishing gears.

Or

(b) Write short notes on basic principles of fishing gears.

14. (a) Discuss about by-catch and their impact of marine ecosystem.

Or

(b) Summarize about destructive fishing practice in India.

15. (a) Write a short notes on Juvenile fishing and their impact.

Or

(b) Comment on ICZM.

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Write a detailed essay on modern marine fishing craft of India.

17. Discuss in detail about the classification of outboard and inboard engines.

18. Discuss in detailed on Yarn numbering systems and types.

19. Give an account on active fishing gear with suitable examples.

20. Write a detailed account on Indian Fisheries Act.

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R6778

Sub. Code
547202

M.Sc. DEGREE EXAMINATION, APRIL – 2022

Second Semester

Fisheries Science

REMOTE SENSING AND GIS FOR FISHERIES MANAGEMENT

(CBCS – 2021 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. FAO
2. Total Allowable Catch
3. Electromagnetic spectrum
4. Rayleigh scattering
5. Balloon floats
6. Active remote sensors
7. Landsat 1
8. GPS
9. Explain Remote Sensing
10. Overfishing

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Write a brief note on traditional method of fishery management.

Or

(b) Describe the overview of operational fisheries.

12. (a) What are the properties of electromagnetic radiation?

Or

(b) Explain about the electromagnetic radiation and its interaction in the atmosphere.

13. (a) What are the applications of remote sensing?

Or

(b) Explain about the global acquisition sensor system.

14. (a) Write a brief note on multispectral scanner.

Or

(b) Explain about Indian Remote Sensing Satellites.

15. (a) What are the applications of GIS in fisheries management?

Or

(b) Write a brief note of PFZ.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Write a detailed account on Indian status of remote sensing application in fisheries.

17. Describe in detail – Electromagnetic sensors.

18. Explain about various remote sensing platforms.

19. Write an essay on digital image processing and interpretation.

20. Describe about challenges of fisheries information system and future perspectives.

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R6779	Sub. Code
	547203

M.Sc. DEGREE EXAMINATION, APRIL – 2022

Second Semester

Fisheries Science

FISHERY MANAGEMENT, REGULATIONS AND CONSERVATION

(CBCS – 2021 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. TED

2. CBD

3. By-catch reduction device

4. EEZ

5. IOTC (Indian ocean tuna Commission)

6. Ghost fishing

7. Indian wild life protection act

8. CRZ

9. Marine protected areas

10. Total allowable catch

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Explain ecosystem approach to fisheries.

Or

(b) Briefly discuss about IOTC and what are its management measures?

12. (a) Explain the MCS system for capture fisheries.

Or

(b) Discuss about mesh size regulations.

13. (a) Explain the Environment Protection Act.

Or

(b) What is meant by catch quotas in fisheries? What is the purpose?

14. (a) What is over fishing? What are the indicators of over fishing?

Or

(b) Explain about the marine fishery legislation in the maritime states of India?

15. (a) Explain the maritime zones of India (regulation of fishing by foreign vessel) act, 1981

Or

(b) Explain the Marine fishing policy, 2004.

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Explain code of conduct for responsible fisheries.

17. Write an essay on deep sea fishing regulation in India.

18. Explain about CRZ zones.

19. Explain the commonly used tools for input and output regulation.

20. What is fishery management? Explain the different management practices in fisheries?

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R6780	Sub. Code
	547204

M.Sc. DEGREE EXAMINATION, APRIL – 2022

Second Semester

Fisheries Science

FRESH WATER AQUACULTURE

(CBCS – 2021 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Macrobrachium rosenbergii

2. Polyculture

3. Blower

4. Induced Breeding

5. Nursery

6. Brood stock

7. Monosex culture

8. Biofloc

9. Cold water aquaculture

10. Aquaphonics

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Write short notes on freshwater farming scenario in India.

Or

(b) Briefly discuss the criteria for selecting quality fish seeds.

12. (a) Describe different type of aerators used in the aquaculture farms.

Or

(b) Draw and label the layout of farm design and explain each components.

13. (a) Discuss briefly about the status of freshwater in fish hatchery in India.

Or

(b) Give an account on live feed and their importance in aquaculture.

14. (a) Explain the prospects of freshwater prawn culture in India.

Or

(b) Briefly write about the genetically improved Tilapia farming.

15. (a) Comment on waste water fed aquaculture.

Or

(b) Write a short notes on various treatment methods followed in aquaculture.

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Prepare a design and layout to construct prawn farm in freshwater zones.

17. Write a detailed account on water quality management in aquaculture ponds.

18. Explain induced maturation and spawning in cultivable species.

19. Describe various management methods adopted in culture system.

20. Write an essay on the economics of Integrated farming system.

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R6781

Sub. Code
547205

M.Sc. DEGREE EXAMINATION, APRIL – 2022

Second Semester

Fisheries Science

RESEARCH METHODOLOGY IN FISHERIES

(CBCS – 2021 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

All questions carry equal marks

1. H-index
2. Research gate
3. Normality
4. FTIR
5. TLC
6. ELISA
7. Magnification
8. Objective lens
9. Standard deviation
10. ANOVA

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Give an account on significance of research literature.

Or

(b) What are the major features involved in designing a research project.

12. (a) Briefly explain the working and principles of pH meter.

Or

(b) Explain the flame photometer and its applications.

13. (a) Write a note on paper chromatography.

Or

(b) Give a note on applications of reverse transcriptase PCR.

14. (a) What is bright field microscopy? Write down its applications.

Or

(b) Describe the process of live cell staining with suitable example.

15. (a) Give an account on Poisson and binominal distribution.

Or

(b) Write notes on correlation and regression.

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

All questions carry equal marks.

16. Describe in detail about background of research literature, analysis and compilation of research data for thesis.

17. Give an account on principle and mechanism of mass spectrophotometer.

18. Write a short note on polymerase chain reaction and its applications.

19. Explain the working and principle of electron microscopy with its types.

20. Elucidate the methods to prepare a manuscript for publication in a peer reviewed journal.

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R6782

Sub. Code
547502

M.SC.DEGREE EXAMINATION, APRIL – 2022

Second Semester

Fisheries Science

AQUATIC POLLUTION

(CBCS – 2021 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Sewage indicator
2. Micro plastic pollution
3. Eutrophication
4. Bioaccumulation
5. Industrial effluent
6. Coral leaching
7. Composting
8. Phytoremediation
9. Global warming
10. Ocean acidification

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Write short note on National status of Aquatic pollution.

Or

(b) What are the sources of ground water pollution?

12. (a) Give a short account on pollutants and its types.

Or

(b) Discuss briefly about the surveying methods of ground water pollution.

13. (a) List out the characteristics of sewage and industrial effluents.

Or

(b) Mention about the implications of oil pollution in water bodies.

14. (a) Discuss about the purification of drinking water.

Or

(b) Give a short account on EIA.

15. (a) Explain briefly about the dispersal of aquatic pollutants.

Or

(b) Describe about the treatment of radioactive pollutants.

Part C

$(3 \times 10 = 30)$

Answer any **three** questions.

16. Discuss about the sources of contamination and its management.

17. List out the major aquatic pollutants and their effect on aquatic ecosystem.

18. Explain about causes of eutrophication and their management in water bodies.

19. Mention about different methods used for the treatment of sewage water with illustrations.

20. Explain about different methods of waste disposal criteria standard used in different parts of the world.

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