

## Second Year

**FISHERIES****Second Year (P.C. 107/71)****Subject : Pond Management****Paper - I****Time : 3 Hours****Max. Marks : 50****Section - I****1 x 8 = 8 Marks****Water Analysis**

1. Estimate the D.O of the given water sample.
2. Estimate the Total Alkalinity of the given water sample.
3. Estimate the Hardness of the given sample.
4. Determination of the pH values of the given sample.
5. Estimate the nitrates / phosphates of the given water sample.
6. Estimate the Organic matter of the given sample.

**Section - II****(2 x 4 = 8 Marks)**

Identify the given aquatic weed. Write the characters with neat labelled diagram.

7. (a) Pistia  
(b) Hydrilla
8. (a) Eichornia  
(b) Vallisneria
9. (a) Lemna  
(b) Chara
10. (a) Azolla  
(b) Utricularia
11. (a) Nymphaea  
(b) Marsilia

12. (a) Nelumbo  
(b) Typha

**Section - III****2 x 4 = 8 Marks**

Identify the predatory fish and predatory insects. Write the characters with neat labelled diagram.

13. (a) Channa (Ophiocephalus spe)  
(b) Nepa
14. (a) Clarias  
(b) Ranatra
15. (a) Mystus  
(b) Notonecta
16. (a) Wallago attu  
(b) Belostoma
17. (a) Heteronuestus  
(b) Cybister
18. (a) Anabus (Climbing perch)  
(b) Dragon fly.

**Section - IV****2 x 4 = 8 Marks**

Identify the given fish and prawn disease (Specimen by chart). Write the symptoms with neat diagram.

19. (a) Viral hemorrhagic septicemia (VHS)  
(b) Vibryosis
20. (a) Dropsy  
(b) Tail rot disease of prawn
21. (a) Furunculosis  
(b) Shell disease

22. (a) Columnaris disease  
(b) Systemic Ectodermal and mesodermal Baculovirus disease (SEMBV)
23. (a) Branchiomycosis  
(b) Filamentous bacterial disease
24. (a) Branchiomycosis  
(b) Yellow head virus disease (Y.H.V)

**Section - V****(2 x 4 = 8 Marks)**

Identify the given spotter of Zooplankton and Phytoplankton. Write their characters with neat labeled diagram.

25. (a) Nostoc  
(b) Paramecium
26. (a) Microcystis  
(b) Brachionus
27. (a) Euglena  
(b) Daphnia
28. (a) Volvax  
(b) Moina
29. (a) Spirogyra  
(b) Moina
30. (a) Anabaena  
(b) Artemia

**Section VI**

Viva

**5 Marks**

Record

**5 Marks**

**FISHERIES****Second Year****MODEL QUESTION PAPER****Subject : Pond Management Paper - I****Time : 3 hours****Max. Marks : 50****Section - I****1 x 8 = 8 Marks**

3. Estimate the Hardness of the given sample.

**Section - II****(2 x 4 = 8 Marks)**

10. Identify the aquatic weed, write characters with neat labelled diagram

(a) Azolla (b) Utricularia

**Section - III****(2 x 4 = 8 Marks)**

14. Identify the Predatory fish and predatory insects, write the character with neat labelled diagram.

(a) Clarius (b) Ranatra

**Section - IV****(2 x 4 = 8 Marks)**

19. Identify the given diseased fish and prawn, write the symptoms with diagram.

(a) Viral hemorrhagic septicemia (b) Vibriosis

**Section - V****(2 x 4 = 8 Marks)**

25. Identify the Phytoplankton and Zooplankton, write their characters with neat labeled diagram.

(a) Nostoc (b) Paramecium

**Section - VI**

Viva

**5 Marks**

Record

**5 Marks**

**Note :** The Serial numbers of the questions mentioned above are the serial numbers in question bank. In practical examination only the serial number of the questions will be given, the examiner shall decode it with question bank and give the questions.

**FISHERIES****Second Year****PRACTICAL SCHEME OF VALUATION KEY****Subject : Pond Management****Paper - I****Time : 3 hours****Max. Marks : 50****Section - I****1 x 8 = 8 Marks**

Aim	:	1 Mark
Apparatus / Chemicals	:	1 Mark
Procedure	:	4 Mark
Principle	:	1 Mark
Result	:	1 Mark

**Section - II, III, IV, V****2 x 4 = 8 Marks**

Each parts carries	:	1 Marks
Identification	:	2 Marks
Labeled diagram	:	1 Marks

**Section - VI**

Viva	:	5 Marks
Record	:	5 Marks

**FISHERIES****Second Year (P.C. 107/72)****Subject : Aquaculture Paper - II****Time : 3 Hours****Max. Marks : 50****Section - I****1 x 8 = 8 Marks****Analysis of Sewage**

1. Estimate the pH value of the given sample.
2. Estimate the Total alkalinity of the given sample.
3. Estimate the Chlorides of the given sample.
4. Estimate the Nitrates of the given sample.
5. Estimate the Phosphate of the given sample.
6. Estimate the Sulphates of the given sample.

**Section - II****1 x 8 = 8 Marks****Experiments / Demonstrations**

7. Demonstrate the fabrication of cages.
8. Explain the use of aerators in aquaculture .
9. Explain the use of water Testing Kit.
10. Explain the use of soil testing kit.
11. Explain the use of trail netting aquaculture.
12. Demonstrate the preparation of artificial feeds.

**Section - III****2 x 4 = 8 Marks**

Identify the given spotter, Write the characters with neat labelled diagram.

13. (a) Hatchling  
(b) Anchor worm
14. (a) Fry  
(b) Argulus

15. (a) Spawn  
(b) Datctylogyrus
16. (a) Fingerlings  
(b) Ergasilus
17. (a) Spawn  
(b) Hemiclepsis (Fish leech)
18. (a) Fry  
(b) Gyrodactylus

**Section - IV****2 x 4 = 8 Marks**

Identify the given fish and prawn disease. (Specimen / chart) Write the symptoms with diagram.

19. (a) Columnaris disease  
(b) Systemic Ectodermal and Mesodermal bacculovirus disease (SEMBV)
20. (a) Dropsy  
(b) Shell disease
21. (a) Furunculosis  
(b) Tail rot disease of prawn
22. (a) Saprolegniasis  
(b) Filamentous bacterial disease
23. (a) Branchiomycosis  
(b) Yellow head and virus disease
24. (a) Viral hemorrhagic septicemia  
(b) Vibryosis

**Section - V****1 x 8 = 8 Marks**

Field visit / submission of models / charts

25. Submission of field visit report of fish seed production farm by the students.



26. Submission of field visit report of fish culture farm by the student.
27. Submission of the field collection and observation report by the student.
28. Submit the prepared model of ideal fish culture farm. (By Chart / Model)
29. Submit the model prepared by the students of the ideal fish seed farm (By model or charts)
30. Submit the model prepared by the student of the integrated fish culture farm (By Model or charts)

**Section - VI**

Viva	<b>5 Marks</b>
Record	<b>5 Marks</b>

**FISHERIES****Second Year****MODEL QUESTION PAPER****Subject : Aquaculture****Paper - II****Time : 3 hours****Max. Marks : 50****Section - I****1 x 8 = 8 Marks**

2. Estimate the total alkalinity of the given sample.

**Section - II****1 x 8 = 8 Marks**

7. Demonstrate the fabrication of cages

**Section - III****2 x 4 = 8 Marks**

18. Identify the spotter, write the characters with labelled diagram

(a) Fry

(b) Gyrodactylus.

**Section - IV****2 x 4 = 8 Marks**

20 . Identify the given fish and prawn disease write the symptoms with diagram.

(a) Drops

(b) Shell disease

**Section - V****1 x 8 = 8 Marks**

26. Submission of field visit report of fish culture farm by the student.

**Section - VI**

Viva

**5 Marks**

Record

**5 Marks**

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**FISHERIES****Second Year****PRACTICAL SCHEME OF VALUATION KEY****Subject : Aquaculture****Paper - II****Time : 3 hours****Max. Marks : 50****Section - I****1 x 8 = 8 Marks**

Aim	:	1 Marks
Apparatus / chemical	:	1 Marks
Principle	:	1 Marks
Principle	:	1 Mark
Procedure	:	4 Marks
Result	:	1 Marks

**Section - II****1 x 8 = 8 Marks**

Aims	:	1 Marks
Material	:	1 Mark
Procedure	:	4 Marks
Figures	:	1 Marks
Observations / Conclusion	:	1 Marks

**Section - III & IV****2 x 4 = 8 Marks**

Identification of spotters		
Identification	:	1 Marks
Characters	:	2 Marks
Labelling	:	1 Marks

**Section - V****1 x 8 = 8 Marks**

Field visit report		
Aim	:	1 Marks

Materials	:	1 Marks
Demonstrations / Exploitations/ Descriptions	:	4 Marks
Fig / diagram / table	:	1 Marks
Observations / conclusions	:	1 Marks

**Section - VI**

Record	:	5 Marks
Viva	:	5 Marks

**FISHERIES****Second Year (P.C. 107/73)****Subject : Reservoir Fisheries and Post Harvest Technology  
Paper - III****Time : 3 Hours****Max. Marks : 50****Section - I****1 x 8 = 8 Marks**

Experiments Demonstration

1. Demonstrate the preservation of specimens of local fishes .
2. Demonstrate the processing Techniques of fish through charts/ diagrams.
3. Demonstrate the canning method in fish preservation.
4. Demonstrate the packaging techniques through charts/diagrams.
5. Demonstrate the types of marketing channels through charts.
6. Analyze the intermediaries in fish marketing.

**Section - II****2 x 4 = 8 Marks**

Identify the given fish. Write the characters with neat labelled diagrams.

7. (a) Catla  
(b) Bombay duck
8. (a) Labeo (Rohu)  
(b) Oil sardine
9. (a) Cirrhinus.  
(b) Tuna
10. (a) Silver crap  
(b) Indian Mackerel
11. (a) Grass crap  
(b) Promfret

12. (a) Common carp  
(b) Hilsa ilisa

**Section - III****2 x 4 = 8 Marks**

Identify the given prawns. Write the characters with neat labelled diagrams.

13. (a) Macrobrachium rosenbergii  
(b) Penaeus indicus
14. (a) Machrobrachium malcomsonii  
(b) Penaeus monodon
15. (a) Metapenaeus dobsoni  
(b) Penaeus semisulcatus
16. (a) Metapenaeus affinis  
(b) Litopenaeus vannamea.
17. (a) Metapenaeus monoceroes  
(b) Penaeus indicus
18. (a) Panaeus monodon  
(b) Litopenaeus vannamea.

**Section - IV****2 x 4 = 8 Marks**

Identify the given by product of fish and write the comments.

19. (a) Fish meal  
(b) Shagreen
20. (a) Fish manure  
(b) Isinglass
21. (a) Fish glue  
(b) Fish liver oil
22. (a) Fish body oil  
(b) Ambergis

23. (a) Fish protein

(b) Shark fins

24. (a) Fish manure

(b) Fish glue

**Section - V**

**1 x 8 = 8 Marks**

Field visit report / submission project report.

25. Submit the field visit report Local Reservoir.

26. Submit the visit report of District fisheries office.

27. Submit the observation report of the fish market.

28. Submit the Observations report of processing plants.

29. Submit the visit report of the cold storage unit.

30. Submit the visit report of the By-product industry.

**Section - VI**

Viva

**5 Marks**

Record

**5 Marks**

**FISHERIES****Second Year****MODEL QUESTION PAPER****Subject : Reservoir Fisheries and Post Harvest Technology****Paper - III****Time : 3 hours****Max. Marks : 50****Section - I****1 x 8 = 8 Marks**

1. Demonstrates the preservation of specimens of local fishes.

**Section - II****2 x 4 = 8 Marks**

7. Identify the given fishes. Write the characters with neat labelled diagrams.

(a) Catla

(b) Bombay duck

**Section - III****2 x 4 = 8 Marks**

14. Identify the given prawn. Write the characters with neat labelled diagrams.

(a) *Machrobracium rosenbergii*

(b) *Panaeus indicus*

**Section - IV****2 x 4 = 8 Marks**

21. Identify the given by-product of fish and write the comments.

(a) Fish glue

(b) Fish liver oil

**Section - V****1 x 8 = 8 Marks**

27. Submit the observation report of fish market.

**Section - VI**

Viva

**5 Marks**

Record

**5 Marks**

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**FISHERIES****Second Year****PRACTICAL SCHEME OF VALUATION KEY****Subject : Reservoir Fisheries and Post Harvest Technology****Paper - III****Time : 3 hours****Max. Marks : 50****Section - I****1 x 8 = 8 Marks**

Aim	:	1 Marks
Principle	:	1 Marks
Materials	:	1 Marks
Procedure	:	4 Marks
Fig / maps	:	1 Marks

**Section - II, III, IV****2 x 4 = 8 Marks**

(a) Identification	:	1 Mark
(b) Characters	:	2 Marks
(c) Labelling	:	1 Mark

**Section - V****1 x 8 = 8 Marks**

Aim	:	1 Marks
Materials	:	1 Marks
Observations	:	5 Marks
Charts/models	:	1 Marks

**Section - VI**

Viva	:	5 Marks
Record	:	5 Marks