

Total No. of Printed Pages:02

SUBJECT CODE NO:- B-2174
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. T.Y (Sem.-VI) Examination OCT/NOV 2019
Elective Paper Zoology Paper-XX : (602) (A)Fishery Science- II

[Time : 1:30 Hours]

[Total Marks :50]

Please check whether you have got the right question paper.

N.B. :

1. Attempt all questions.
2. Illustrate your answer with suitable labeled diagram.

Q.1 Describe in detail the Sewage feed fisheries? 20

OR

Explain in detail the Protozoan and Bacterial diseases in fishes & their control.

Q.2 Describe fish preservation methods and add a note on fish spoilage? 20

OR

Write short notes on **any four** of the following.

- a) Seasonal pond
- b) Viral diseases
- c) Hatching Happa
- d) Value added product
- e) Drift net
- f) Sanitation

Q.3 Select and write answer from the given alternations in each sub question. 10

- 1) Pisciculture is rearing and production of _____.
 a) Fishes b) Birds c) Reptiles d) Wool yielding of animals
- 2) For induced Breeding in craps this is not used _____.
 a) Ovaprin b) Ovotide c) Wova – FH d) Methyl Testo telone
- 3) The stage of fish when a mouth is absent.
 a) Hatchlings b) Fry c) Fingerling d) Spawn
- 4) The most common old method of fish preservation is _____.
 a) Chilling b) Sun drying c) Smoking d) Salting

- 5) Which of the following is not obtained from sea water _____.
- a) Catla catla b) Shark c) Mackerel d) Sardine
- 6) Drying of fishes by lowering temperature is _____.
- a) Smoking b) Freeze drying c) Salting d) Chilling
- 7) Hypophysation is done in major crop _____.
- a) To increase size b) to increase their growth
c) to increase breeding in fishes d) to increase their Palotobility
- 8) Out of the following the Indian Trout is _____.
- a) Barelius bola b) Salmo trutta fario
c) Salmogairdeni d) Denio devario
- 9) The amount of protein in live body weight of fish is _____.
- a) 10 – 13 % b) 15 – 20 % c) 18 – 23 % d) 5 – 12 %
- 10) Shamgla jail is a fishing net used in _____.
- a) Gujarat b) West Bengal c) Maharashtra d) Odisha

OR

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SUBJECT CODE NO:- B-2174
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. T.Y (Sem-VI) Examination OCT/NOV 2019
Elective Paper Zoology Paper-XX (602) : (B) Animal Culture- II

[Time : 1:30 Hours]

[Total Marks :50]

Please check whether you have got the right question paper.

N.B. :

1. Attempt all questions.
2. Illustrate your answer with suitable labeled diagram.

Q.1 Describe life cycle of Mulberry silkworm. **20**

OR

Write in detail about structure and working of silk gland.

Q.2 Write a note on important disease and pests of silkworm. **20**

OR

Write short notes on **any four** of the following.

- a) Predators of SLIK worms.
- b) Preservation and storage of cocoons
- c) Rearing house
- d) Methods of bed cleaning
- e) Co coon harvesting
- f) Muga silkworm

Q.3 Select and write answer from the given alternations in each sub question. **10**

1. The adult silk moth feeds on _____ plant.
 - a) Mulberry
 - b) Oak
 - c) Castor
 - d) None of these
2. Beauveria bassiana (balls) the causal organism for _____ disease of silkworm.
 - a) Green muscardine
 - b) White muscardine
 - c) Yellow Muscardine
 - d) Brown muscardine
3. Metarrhizium anisopliar is causal organisms of _____ disease of silkworm.
 - a) Black muscardine
 - b) Red muscardine
 - c) Brown muscardine
 - d) Orange muscardine

4. Spicaria prasina is causal organisms for disease of silkwarm.
 - a) Yellow muscardine
 - b) Red muscardine
 - c) Green muscardine
 - d) Black muscardine
5. Silkworm Bombyx mori feeds on _____.
 - a) Arjun
 - b) Mulberry
 - c) Neem
 - d) Caster
6. The larval life of mulberry silkworms lasts for _____ weeks.
 - a) 1-2
 - b) 3-4
 - c) 8-9
 - d) 5-6
7. Muga silk produced by _____.
 - a) Anthrala mytitha
 - b) Antheraea Panyia
 - c) Antheraea roylei
 - d) Antheraca assoma
8. Semiculture is native of _____.
 - a) Japan
 - b) China
 - c) India
 - d) Korea
9. Total world raw silk production in 1990 – 91 was _____.
 - a) 72879 tonnes
 - b) 72879 quntals
 - c) 28790 tonnes
 - d) 728790 quntals
10. Pebrin disease of silkwarm is caused due to _____.
 - a) Spiciria
 - b) Nosema
 - c) Streptococci
 - d) All above

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SUBJECT CODE NO:- B-2174
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. T.Y (Sem-VI) Examination OCT/NOV 2019
Elective Paper Zoology Paper-XX (602) : (C) Entomology - II

[Time : 1:30 Hours]

[Total Marks :50]

Please check whether you have got the right question paper.

N.B. :

1. Attempt all questions.
2. Illustrate your answer with suitable labeled diagram.

Q.1 Explain in detail classification and general characters of Midge fly of Jower and Red cotton bug of cotton. **20**

OR

What is Metamorphosis? Describe in detail life cycle of Rice Weevil.

Q.2 What are Pest control methods? Describe in detail chemical pest control. **20**

OR

Write short notes on **any four** of the followings.

- a) Pyrilla
- b) Pulse beetle
- c) Medical pest
- d) Jower stem borer
- e) Shoulder rotary duster
- f) White grub

Q.3 Select and write answer from the given alternations in each sub question. **10**

1. Eye files is the _____ pest.

a) Medical	b) Veterinary	c) Agricultural	d) Household
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2. Chilo zonellus is the scientific name of _____.

a) Pyrilla	b) Jower stem borer	c) Sugarcane stem borer	d) White grub
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3. Insecticides is used in _____.

a) IPM	b) Chemical control	c) Biological control	d) Cultural control
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4. Migration of Insects occurs for _____.

a) Reproduction	b) Food	c) Climate change	d) All above
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5. Pod sucking bug is the pest of _____ crop.
a) Jower b) Cotton c) Sugarcane d) Groundnut
6. Napthaline ball is used in _____.
a) Systemic Poison b) Fumigation
c) Contact Poison d) All above
7. Dysdercus cingulatus is a scientific name of _____.
a) Pink bollworm b) Stem borer c) Pyrilla d) Red cotton bug
8. Mosquito is the _____ pest.
a) Medical b) Agricultural c) Veterinary d) Stored grain
9. Bot fly is the _____ pest.
a) Medical b) Agricultural c) Polyphagus d) Veterinary
10. Compression sprayer is used for _____.
a) Fumigation b) Dusting c) Spraying d) All above

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SUBJECT CODE NO:- B-2174
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. T.Y (Sem-VI) Examination OCT/NOV 2019
Elective Paper Zoology Paper-XX (602) : (D) Parasitic Protozoa and Helminthes-II

[Time : 1:30 Hours]

[Total Marks :50]

Please check whether you have got the right question paper.

N.B. :

1. Attempt all questions.
2. Illustrate your answer with suitable labeled diagram.

Q.1 Describe the general characters and classification of Nematodes. **20**

OR

Explain in detail structure and Life cycle of Ancylostoma duodenale.

Q.2 Give a detailed account on body wall of cestode with suitable example. **20**

OR

Write short notes on **any four** of the following.

- a) Hydatid cyst
- b) Male genital system of Trematode
- c) Morphology of schistosomo haematobium
- d) Microfilarae
- e) Cysticercus bovis
- f) Structure of Dracunculus medinensis.

Q.3 Select and write answer from the given alternations in each sub question. **10**

1. The adult worm of Echinococcus granulossus contains _____.
 - a) 3-4 segments
 - b) 50-100 segments
 - c) 100-200 segments
 - d) 1000-2000 segments
2. In Trichinella spiralis infection encysted, coiled larvae can be seen in _____.
 - a) Stool
 - b) Cerebrospinal fluid
 - c) Sputum
 - d) Muscle tissue
3. Wuchererid was discovered by _____.
 - a) Huxley
 - b) Ross
 - c) Leibe
 - d) Manson
4. Elephantiasis in man is caused by _____.
 - a) Dracunculus
 - b) Ancylostoma
 - c) Oxyuris
 - d) Microfilaride

5. Final moult in life cycle of *Ascaris* take place in _____.
a) Intestine b) Lungs c) Soil d) None of these
6. Viviparity generally occurs in _____.
a) *Ancylostoma* b) *Wuchereria* c) *Enterobius* d) *Trichuris*
7. Platyhelminthes are generally called as _____.
a) Round worms b) Flat worms c) Blind worms d) Tubicolous worms
8. Which of the following nematode lay eggs containing larvae _____.
a) *Trichinella spiralis* b) *Ascaris lumbricoides*
c) *Brugia Malayi* d) *Enterobius vermicularis*
9. Proglottids are present in _____.
a) Trematode b) Cestode c) Nematode d) Turbellaria
10. _____ of the following parasite does not possess rostellum.
a) *Taenia solium* b) *Taenia saginata*
c) *Echinococcus granulosus* d) *Hymenolepis nana*

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SUBJECT CODE NO:- B-2174
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. T.Y (Sem-VI) Examination OCT/NOV 2019
Elective Paper Zoology Paper-XX (602)
(E) Computer Application & Medical Lab Tech-II

[Time: 1:30 Hours]

[Max.Marks:50]

Please check whether you have got the right question paper.

- N.B 1) Attempt all questions.
 2) Illustrate your answer with suitable labeled diagram.
- Q.1 Explain the Routine Examination of body fluids. 20

OR

Describe Basic requirement of Laboratory.

- Q.2 Write a note on physical and chemical Examination of Urine. 20

OR

Write short notes on any four of the following:

- a) Autoclave
- b) Hot air oven
- c) Incubator
- d) Water bath
- e) Centrifuge
- f) Colorimeter

- Q.3 Multiple Choice Questions:- 10

- 1) Elisa test is used for diagnosis for
 a) Cancer b) AIDS c) Jaundice d) Typhoid
- 2) Normal volume of semen is
 a) 2-6 ml b) 2ml c) 7-10 ml d) 0.5-1 ml
- 3) Formation of plasma proteins occurs in-----
 a) Spleen b) tissue c) liver d) kidney
- 4) What is the normal platelets count
 a) 50 thousand b) 1000 thousand c) 5000 thousand d) 2.5-5 lac

- 5) Leucocyte is commonly known
 - a) RBC
 - b) WBC
 - c) serum
 - d) Thrombocyte
- 6) Which is liquid fraction of blood
 - a) RBC
 - b) WBC
 - c) Plasma
 - d) Hb
- 7) Milky White color of urine is indicate
 - a) Parasitic infection
 - b) Bacterial infection
 - c) Fungal infection
 - d) Liver infection
- 8) In Oliguria volume of urine is
 - a) Increase
 - b) Decrease
 - c) Suppression
 - d) a and b
- 9) Normal Volume of urine is
 - a) 2000ml-2500ml / 24 hrs
 - b) 1000ml-1500ml/hrs
 - c) 500ml-800ml /hrs
 - d) 200ml-400ml / 24 hrs
- 10) Which electrode used in PH meter
 - a) Calomel
 - b) negative
 - c) positive
 - d) none of these

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SUBJECT CODE NO:- B-2174
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. T.Y (Sem-VI) Examination OCT/NOV 2019
Elective Paper Zoology Paper-XX (602)
(F) Bio Technology-II

[Time: 1:30 Hours]

[Max.Marks:50]

- N.B Please check whether you have got the right question paper.
- 1) Attempt all questions.
 2) Illustrate your answers with suitable labeled diagrams.
- Q.1 Define Transgenic animals. Explain microinjection with example. 20
- OR**
- Describe sterilization of laboratory and limitations of cell culture.
- Q.2 Explain commercial production of enzymes. 20
- OR**
- Write short notes on any four of the following:-
- Bacterial contamination
 - Somatic cell fusion
 - Cassette mutagenesis
 - Liver transplantations
 - Disease detection
 - Application of biotechnology in medicine.
- Q.3 Select and write correct answer from the given alternatives in each sub questions. 10
- The most effective method of sterilization is
 - Gram rays
 - boiling
 - autoclaving
 - Incineration
 - The bacteria generally used for genetic engineering
 - Bacillus
 - Pseudomonas
 - Clostridium
 - Agro bacterium
 - First cloned animal is
 - Dolly sheep
 - Dog
 - Mule
 - Cat
 - The production of complete animals from somatic cells of an animal is called -----
 - Gene cloning
 - Animal cloning
 - Cell cloning
 - All of these

- 5) The technology used for production of monoclonal antibodies is -----
 - a) Mass culture technology
 - b) Hybridoma technology
 - c) Suspension culture
 - d) None of these

- 6) Embryo Therapy was devised by Handyside et. al to cure
 - a) Cystic Fibrosis
 - b) Haemophilia
 - c) Thalassaemia
 - d) Severe combined immunodeficiency disease

- 7) Site-directed mutagenesis is also called
 - a) Oligonucleotide – directed mutagenesis
 - b) Nucleotide – directed mutagenesis
 - c) Directed mutagenesis
 - d) PCR mutagenesis

- 8) PCR is a -----
 - a) DNA degradation technique
 - b) DNA amplification technique
 - c) DNA sequencing technique
 - d) All of these

- 9) The technique to distinguish the individuals based on their DNA print patterns is called
 - a) DNA fingerprinting
 - b) DNA profiling
 - c) Molecular fingerprinting
 - d) All of these

- 10) Which of the following are commonly produced in animal cell cultures.
 - a) Interferon
 - b) mab
 - c) vaccines
 - d) all of these

OR

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SUBJECT CODE NO:- B-2174
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. T.Y (Sem-VI) Examination OCT/NOV 2019
Elective Paper Zoology Paper-XX (602) : (G) Dairy Technology -II

[Time: 1:30 Minutes]

[Max.Marks:50]

Please check whether you have got the right question paper.

N.B

- i. Attempt all question.
- ii. Draw well labeled diagram wherever necessary.

Q.1 Define Gulabjamun. Explain composition and methods of production. 20

OR

What is Chakha. Explain the methods of preparation. 20

Q.2 Explain manufacturing process and renovation of Ghee production. 20

OR

Write a short notes on any four of the followings. 20

- a) Composition of fortified milk
- b) Packaging material
- c) Butter production
- d) Basundi
- e) Role of dairy industry
- f) Peda production

Q.3 Select and write correct answer from the given alternatives in each sub- questions. 10

1. Milk is only source of _____ in nature.
 - a) Calcium
 - b) Phosphorus
 - c) Lactose
 - d) Fatty acid
2. Microbial toxins disabling _____.
 - a) Immune system
 - b) Bacterial infection
 - c) Fungal infection
 - d) Host tissues
3. _____ acts as a balance wheel of dairy industry.
 - a) Milk
 - b) Butter
 - c) Khoa
 - d) Ghee

4. Boiling point of milk is :
 - a) 100 – 101°C
 - b) 105 – 110°C
 - c) 115 – 117°C
 - d) 102 – 105°C

5. Material required for preparation of Shrikhand is:
 - a) Dahi
 - b) Sugar (powdered form)
 - c) Nutmeg (powdered form)
 - d) All the above

6. Freezing at below - 20°C will kill most pathogenic food bacteria and inactivate toxins.
 - a) True
 - b) False
 - c) None of the above
 - d) All of the above

7. Minimum percent of fat in butter is:
 - a) 80%
 - b) 85%
 - c) 90%
 - d) 95%

8. Which of the following is called as frozen desert _____ ?
 - a) Khoa
 - b) Kulfi
 - c) Malai
 - d) Basundi

9. The final temperature for clarification of ghee ranges from _____.
 - a) 140⁰ – 150°C
 - b) 110⁰ – 120°C
 - c) 130⁰ – 140°C
 - d) 90⁰ – 100°C

10. Cultured butter milk is made from _____.
 - a) Skim milk
 - b) Cultured cream
 - c) Yoghurt
 - d) All the above

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SUBJECT CODE NO:- B-2174
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. T.Y (Sem-VI) Examination OCT/NOV 2019
Elective Paper Zoology Paper-XX (602) : (H) Poultry Sciences-II

[Time: 1:30 hours]

[Max.Marks:50]

Please check whether you have got the right question paper.

N.B

- i. Attempt all questions.
- ii. Illustrate your answer with suitable labeled diagram.

Q.1 Give in detail brooder management.

20

OR

Write in detail selection site for poultry farm and folding system.

Q.2 Describe in detail requirement of poultry feed and feed ingredients.

20

OR

Write short notes on any four of the following

- a) Non-conventional poultry feed
- b) Requirement of poultry feed
- c) Parasitic diseases
- d) Marketing of poultry products
- e) Preservation of poultry products
- f) Fungal diseases

Q.3 Select and write correct answer from the given alternatives in each sub question

10

1) ----- keep the chicks warm.

- | | |
|---------------|----------------------|
| a) Alligators | b) Water |
| c) Brooders | d) None of the above |

2) Why are brooders used in the broiler house -----

- a) So the farmer can catch them more easily
- b) So the chicks will eat more
- c) To keep the fox out of the chicken house
- d) To keep the baby chicks warm

3) Some chickens are grown for -----

- | | |
|------------|----------------------|
| a) Poultry | b) Meat |
| c) Chicken | d) None of the above |

- 4) The hatchery should be situated at least ----- it away from other poultry.
 - a) 1000 meter
 - b) 100 meter
 - c) 500 meter
 - d) None of the above

- 5) What is the last step before the eggs are taken to the store -----
 - a) They are cooled
 - b) They are collected
 - c) They are sorted
 - d) They are candled

- 6) Which of these steps happens first -----
 - a) The eggs are stored
 - b) The eggs goes to large lighted table
 - c) The egg is warmed
 - d) The egg is washed

- 7) Poultry provides as -----
 - a) Milk and oil
 - b) Water
 - c) Egg and meat
 - d) None of the above

- 8) How many weeks does it take for a meat type chicken to reach a weight of 4 pounds -----
 - a) 6 months
 - b) 32 weeks
 - c) 10 days
 - d) 6 to 8 weeks

- 9) New born chicks must be kept as warm as -----
 - a) Winter night
 - b) Winter day
 - c) Summer day
 - d) Summer night

- 10) A ----- can be as long as a foot Ball field.
 - a) Poultry form
 - b) Water
 - c) Broiler house
 - d) None of the above