

B.Sc. III year Zoology
V-Semester, DSC-I
Paper-V: Physiology & Chemistry

Max. Marks 25

I. Identify, labelled diagram, spots /slides, identification, labelled diagram and salient features of spots (4x2 = 8Marks)

- A. Mammalian Pituitary Gland
- B. Mammalian Thyroid Gland
- C. Mammalian Pancreas Gland
- D. Mammalian Adrenal Gland

II. Estimation of from Biochemistry (4 Marks)

- A. Estimation of haemoglobin by sashis method
- B. Estimation of total protein by lowry's method
- C. Estimation of unit oxygen consumption of fish with reference to body weight.

III. Identification/study of _____ from physiology (4 Marks)

- A. Effect of pH on salivary amylase activity
- B. Effect of temperature on salivary amylase activity

IV. Qualitative test (4 Marks)

- A. Identification of carbohydrates iodine/benedicts test/molish test
- B. Identification of proteins biuret test/ millions test
- C. Identification of lipids sudan IV dye test
- D. Identification excretory product's /ammonia/Urea/Uric acid

IV. Record (3 Marks)

V. Viva voce (2 Marks)

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3/10/17

B.Sc. III year Zoology
V-Semester, DSE-I(A)
Paper-VI : Applied Zoology

Max. Marks 25

I. Identification, labelled diagram and salient features of spots (5x2 = 10 Marks)(any five)

Cultivable of edible fishes of edible crustaceans

- A. Catla catla
- B. Labeo rohita
- C. Cirrhinus mrigala
- D. Clarias batrachus
- E. Channa punctatus
- F. Penaeus monodon
- G. Macrobrachium rosenburgi
- H. Penaeus indicus
- I. Scylla serrata (Mud crab)
- J. Macrobrachium maleomsoni

II. Identification of a. larvae of silkworm spotter specimens /picture and b. Mulberry and nonmulberry (4 Marks any two)

- A. Bombyx mori adult stage
- B. Bombyx mori –newly hatched larva/ant stage
- C. Bombyx mori – fourth instar larva
- D. Antheria assamensis (Muga silk worm)
- E. Antheria miletta (Tassar silkworm)
- F. Philosamia neini (Silk worm)
- G. Mouthparts of the adult silkworm
- H. Silk gland of larva

III. Field trip report- (3)

(5 Marks)

- A. Field visit to vermi culture form
- B. Field visit to sericulture unit
- C. Aquaculture unit (Field visit)
- D. Field visit to apiculture unit – and report on purity of the honey from different samples
- E. Poultry visit –and report form
- F. Field visit to dairy form and a report on estimation of specific gravity, fat content, pH, viscosity of milk

IV. Record

(4 Marks)

V. Viva voce

(2 Marks)

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**B.Sc. III year Zoology
V-Semester, DSE-I(B)
Paper-VI: Entomology**

Max. Marks 25

I. Identification, labelled diagram, and salient features of spots (5x2 = 10 Marks)

- A. Periplaneta (Cockroach)
- B. Blatella (German cockroach)
- C. (Silver fish) lepisma
- D. Circkets
- E. Anopheles mosquito –(♀) female
- F. Culex – (♀) female
- G. Aedes (♀) female
- H. (House fly) musca domestica
- I. (Head louse) Pediculus
- J. (Bed bug) cimex

II. Identification of larva stage of spotter/picture (2x2 = 4 Marks)

- A. Mouth parts of anopheles female
- B. Mouth parts of culex female mosquito
- C. Mouth parts of aedes female mosquito
- D. Early hatched larvae of silkworm
- E. Fourth instar larvae of silkworm
- F. Adult silkworm- Bombyx mori

III. Field trip report (5 Marks)

- A. Field visit to sericulture unit and submission of report
- B. Field visit to apiculture unit and submission of report

IV. Record (4 Marks)

V. Viva voce (2 Marks)

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**B.Sc. III year Zoology
V-Semester, DSE-I(C)
Paper-VI: Sericulture**

Max. Marks 25

I. Identification, labelled diagram, and salient features of spots (5x2 = 10 Marks)

- A. Bombyx mori (Mulberry silk)
- B. Antheria miletta (Tassar)
- C. Philasamia reline (Eri-)
- D. Antheina assameusis (Muga)
- E. Bombyx mori male
- F. Bombyx mori female
- G. Morphology of egg of bombyx mori
- H. Early larva of bombyx mori
- I. Pupa of bombyx mori
- J. Fourth instar larva of bombyx mori

II. Identification Spotter/Picture/Model (2x2 = 4 Marks)

- A. Silk gland (Salivary gland) of silkworm larva
- B. Digestive system of bombyx mori larva
- C. Larva of non mulberry silk worm
- D. Sex differentiation larva of silkworm
- E. Sex differentiation of adult silkworm

III. Field trip report (5 Marks)

- A. Field visit rearing unit of silkworm and submission of report with focus on rearing applicures
- B. Field visit to mulberry plantation of submission of report – on mulberry plantation feeding the silkworm
- C. Detailed field visit report on mulberry silkworm culture
- D. Field visit of any non mulberry unit silkworm's and submission of report

IV. Record (3 Marks)

V. Viva voce (2 Marks)

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