



DBB-003-001534

Third Year B. Sc. (Sem. V) Examination

May/June – 2015

Zoology : Z-502

(Applied Zoology, Wild Life & Bio-Technology) (New Course)

Faculty Code : 003

Subject Code : 001534

Time : 3 Hours]

[Total Marks : 70

Instructions : (1) Illustrate your answers with neat and labelled diagrams.

(2) Figures to the right indicate full marks of the question.

- 1 Choose appropriate answers for the following : 20
- (1) Scientific study of fish and fisheries is known as
- (A) Sericulture
 - (B) Inland Fisheries
 - (C) Ichthyology
 - (D) Carp culture
- (2) Which is the cheapest post harvesting technique in fisheries ?
- (A) Canning
 - (B) Air blast freezing
 - (C) Smoking
 - (D) Sun drying
- (3) Which group is not responsible for producing antibiotics ?
- (A) Eubactrials
 - (B) Fungi
 - (C) Viroids
 - (D) Actynomycets

- (4) Which stage is infective in mango hoppers ?
- (A) Adult
 - (B) Nymph
 - (C) Adult and Pupa
 - (D) Adult and Nymph
- (5) Exophthalmic condition of eye is symptoms of
- (A) Dropsy
 - (B) Water mould
 - (C) Coelomiasis
 - (D) Ichthyophthiriasis
- (6) Process of killing cocoon in sericulture is
- (A) Reeling
 - (B) Stifling
 - (C) Con-killing
 - (D) Duffling
- (7) Genuine particles are known as :
- (A) Lecithine
 - (B) Pearl assens
 - (C) Chitosan
 - (D) Isin glass
- (8) Great achievement of IBWL is :
- (A) Red data book
 - (B) CITES
 - (C) Wild Life Protection Act 1972
 - (D) Ram Sir site
- (9) Which of the following is true for national park ?
- (A) Grazing allowed in some area
 - (B) Collection of minor forest product
 - (C) Declared by state government
 - (D) No any right of land ownership in this area

(10) Which vitamin is associated with protein metabolism in fish ?

- (A) Vitamin B₁
- (B) Vitamin B₆
- (C) Vitamin C
- (D) Vitamin A

(11) Which is incorrect pair ?

- (A) Bharatpur : Ranthambhor Sanctuary
- (B) Nainital : Jim Corbet National Park
- (C) 24 Pargana : Sunderban National Park
- (D) Katchhh : Wild Life Desert Sanctuary

(12) Vaccines are produced with the help of

- (A) Dead Micro-organism
- (B) Live-attituted micro-organism
- (C) Toxoids
- (D) All of above

(13) Cabbage butterfly is damage in most of plant related
with family

- (A) Solanaceae
- (B) Cruciferae
- (C) Apocynaceae
- (D) Malvaceae

- (14) Air bladders of carp fishes are used to make
- (A) Pearl assens
 - (B) Isin glass
 - (C) Fish glue
 - (D) Fish fertilizer
- (15) Ratio of female and male in breeding pond during induced breeding is
- (A) 1 : 2
 - (B) 2 : 1
 - (C) 1 : 1
 - (D) 2 : 2
- (16) Red Data Book is published by
- (A) CITES
 - (B) IBWL
 - (C) IUCM
 - (D) UNESCO
- (17) Major by-product from poultry farm is :
- (A) Manure
 - (B) Egg shells
 - (C) Feathers
 - (D) None of above
- (18) Which organism is caused for white spot disease in carp fishes ?
- (A) *Aeromonas punctata*
 - (B) *Costia mecalrim*
 - (C) *Ichthyophtherius multifilis*
 - (D) *Saprolegnia parasitica*

- (19) Which species is known as mulberry silk worm ?
- (A) Anthera Paphia
 - (B) Bombex Mori
 - (C) Anthera Assama
 - (D) Anthera Mulberry
- (20) Caterpillar of Brinjal shoot and fruit borer hibernate in
- (A) Summer
 - (B) Monsoon
 - (C) Winter
 - (D) Early spring

- 2 (a) Write any three out of six : 6
- (i) Fish meal and fish fertilizer as by-product
 - (ii) IBWL
 - (iii) Post cocoon process in sericulture
 - (iv) Post harvesting method by using salt
 - (v) Brooding pond
 - (vi) Symptoms and treatment of white spot disease
- (b) Write any three out of six : 9
- (i) Damage and control of mango hoppers
 - (ii) Advantages of formulated food
 - (iii) Role of Bio-technology in production of antibiotic and vaccine
 - (iv) Wild Life Protection Act 1972
 - (v) Gill rot
 - (vi) History of aquaculture in shark

- (c) Write any two out of five : 10
- (i) Nutrition in fish
 - (ii) Cabbage butterfly
 - (iii) Biotechnology in medicine
 - (iv) Reasons for depletion of wild life and necessity for its conservation
 - (v) Induced breeding
- 3 (a) Write any three out of six : 6
- (i) CITES
 - (ii) Breeding pond
 - (iii) Fish glue and fish fin soup
 - (iv) Location and fauna of marine national park of Gujarat
 - (v) Micro-organism used in production of enzyme and amino-acids
 - (vi) Describe physical factor affecting in inland fisheries
- (b) Write any three out of six : 9
- (i) Poultry product
 - (ii) Dropsy as a fish disease
 - (iii) Scope of Bio-technology
 - (iv) Fish liver and body oil
 - (v) Kaziranga National Park
 - (vi) Damage and control of brinjal fruit and shoot borer

(c) Write any two out of five : 10

(i) Bio-technology in pharmaceutical industries

(ii) Life cycle of silk moth

(iii) Freezing methods of fish preservation

(iv) Jim Corbat and Sundervan National Park

(v) Inland fisheries.
