

Rajarshi Chhatrapati Shahu College, Kolhapur

B.Sc II (CBCS) Zoology

Paper VIII

APPLIED ZOOLOGY I

Multiple Choice questions:

1) Which bacteria is involved in the typhoid fever?

- A.) *Salmonella typhi* b.) *Escherischia coli*
C.) Both (a) and (b) d.) None of these

2) Salmonella typhi is which type of bacteria ?

- A.) Gram negative bacteria b.) Gram positive bacteria
C.) Both (a) and (b) d.) None of these

3) Which test is done for the diagnosis of typhoid fever ?

- A.) ELISA test b.) Widal test
C.) Both a and b d.) Urine test

4) What is the structure of typhoid causing bacteria?

- a.) Flagellated b.) Non-flagellated
c.) Rod shaped d.) Both (a) and (c)

5) What is the incubation period of typhoid fever ?

- a.) 3 minutes to 3 hours
b.) 3 months to 3 years
c.) 3 days to 3 months
d.) 3 hours to 3 months

6) Patients with typhoid fever will die ?

- a.) True b.) False
c.) Neither true nor false d.) Statement is incorrect

7) Typhoid fever is commonly acquired by?

- a.) Consuming food or water contaminated by fecal material of infected person

- b.) Eating *Salmonella* cysts in the muscles of infected person
- c.) Direct sexual contact
- d.) Drinking unpasteurized milk

8.-----is known as "enteric fever".

- a.TB
- b.typhoid
- c.swine flue
- d.encephalitis

9.The causative of tuberculosis is

- (a) Virus
- (b) Bacterium
- (c) Malnutrition
- (d) Protozoan

10.The first person who discovered Mycobacterium tuberculosis was

- (a) Louis Pasteur
- (b) Robert Koch
- (c) Edward Jenner
- (d) None of the above

11.For Tuberculosis, the drugs used to combat it are

- (a) Streptomycin, Pyrazinamide
- (b) Isoniazid, Rifampicin
- (c) Both (a) and (b)
- (d) None of these

12.The BCG vaccine is administered for immunity against

- (a) Malaria
- (b) Tuberculosis
- (c) Jaundice
- (d) Hepatitis

13.The causative of Tuberculosis produces Tuberculin, it is a/an

- (a) enzyme
- (b) hormone
- (c) endotoxin
- (d) exotoxin

14.This is the main symptom of Tuberculosis

- (a) Liquid formation
- (b) Tubercle formation
- (c) both (a) and (b)
- (d) None of these

15. *Sitophilus oryzae* is common stored grain pest of-----

- a. Maize
- b. Wheat
- c. Sugarcane
- d. Pulses

16. Which of the following is called as lesser grain borer----

- a. *Tragoderma granarium*
- b. *Tribolium castaneum*
- c. *Calandra oryzae*
- d. *Rhizopertha dominica*

17. The beetle, *Callosobruchus* causes damage to pulses----

- a. larval and stored pulses
- b. adult and stored pulses
- c. larval and standing crops
- d. adult and standing crops

18. Which of the following is scientific name of rice weevil ----

- a. *Tragoderma granarium*
- b. *Tribolium castaneum*
- c. *Calandra oryzae*
- d. *Sitophilus oryzae*

19. Scientific name of pulse beetle is----

- a. *Tragoderma granarium*
- b. *Tribolium castaneum*
- c. *Callosobruchus*
- d. *Sitophilus*

20. Common name of *Tribolium castaneum* is -----

- a. Red flour beetle
- b. Rice weevil
- c. Khapra beetle
- d. Saw toothed grain beetle

21. For the host, the most dangerous relationship with another organism is----

- a. Symbiosis
- b. Parasitism
- c. Commensalism
- d. Mutualism

22. The term ectoparasites includes---

- a. Some viruses
- b. Some bacteria
- c. Some protozoa
- d. Some insects

23. -----Describes the interaction of two organisms living together

- a. Symbiosis
- b. Biology
- c. Microbiology
- d. Parasitology

24. A relationship between two organisms in which one benefits at the expense of the other is called as -----

- a.Parasitism b.Mutualism c.Commensalism d.Amensalism

25. A relationship between two organisms wherein both organisms benefit

- a.Commensalism b.Mutualism c.Amensalism d.Parasitism

26. An organism that lives on or within another organism on which it is metabolically dependent is called a

- A) Host
B) Parasite
C) Pathogen
D) Commensal

27. When a parasite is growing and multiplying within or on a host, the host is said to have

- A) Pathogenicity
B) A vector
C) An infection
D) A symptom

28. Any organism or agent that produces a disease is known as a

- A) Pathogen
B) Commensal
C) Reservoir
D) Vector

29. Which of the following is an example of most common sign of infection?

- A) Loss of appetite
B) Malaise
C) Pain
D) Fever

30. The site or natural environmental location in which a pathogen normally resides is called

- a) Source
b) Reservoir
c) Vector
d) Hot zone

31. Which of the following diseases is spread via vector-borne transmission?

- a) Lyme disease
b) Encephalitis
c) Plague
d) All of the above

32. Elephantiasis is caused by

a.Culex b.Wuchereria d.Aedes d.Plasmodium

33. The definitive host for plasmodium is -----

a.mosquito b.man c.Rat d.Pig

34. One organism benefits and the other is harmed indicate ----- relationship

a.Symbiosis b.Protocoperation c.Mutualism d.Parasitism

35.A symbiotic relationship in which both organisms benefit is _____.

a.mutualism. b.commensalism. c.competition. d.parasitism.

36.Which of the following statements is TRUE of parasitism?

- a.One organism benefits, and the other is unaffected.
- b.One organism benefits, and the other is harmed.
- c.One organism benefits, and the other benefits more.
- d.Both organisms are harmed.

37.When a tick lives on a dog, the symbiosis can be described as what?

- a.mutualism, with the tick and the dog as co-hosts.
- b.predation, with the tick as predator and the dog as prey.
- c.parasitism, with the dog as parasite and the tick as host.
- d.parasitism, with the dog as host and the tick as parasite.

38.The relationship between a clownfish and a sea anemone benefits both animals. This is an example of _____.

a.mutualism b.parasitism c.predator/prey d.commensalism

39.Symbiosis includes _____.

a.mutualism. b.commensalism. c.parasitism. d.all of the above

40.What are the three types of symbiotic relationships between organisms?

- a.commensalism, parasitism, predator
- b.commensalism, mutualism, prey
- c.commensalism, mutualism, parasitism
- d.mutualism, parasitism, consumer

41.Bacteria in a person's digestive system feeds and breaks down the food, which the person is then able to absorb. What type of relationship is described?

a.mutualism b.commensalism c.symbiosis d.parasitism

42. When bees gather pollen to eat, they also help to spread that pollen to other plants, fertilizing them. Why is this a classic example of mutualism?

- a. one organism benefits while another is unaffected.
- b. one organism benefits while another is harmed.
- c. both organisms benefit.
- D. None of the above

43. Which symbiotic relationship is an example of parasitism?

- a. ticks feeding on a dog
- b. bees transporting pollen from flowers
- c. pilot fish swimming under sharks
- d. birds eating insects from the back of a hippo

44. What is symbiosis?

- a. population separation
- b. the state of stability ecosystems are in
- c. organisms receiving benefits from each other
- d. the transformation of an organism into adulthood

45. A parasite is a species that

- a. makes its own food.
- b. has different pairs of sites.
- c. must eat food or energy.
- d. does not feed from other species.

46. Flagellates live in the stomach of termites. They breakdown food that the termites eat, and both organisms benefit from the nutrients. What type of relationship is this?

- a. commensalism
- b. mutualism
- c. predation
- d. competition

47. Which type of symbiosis occurs between barnacles and whales?

- a. parasitism
- b. succession
- c. commensalism
- d. mutualism

48. Fungi that feed on a host and harm the host are-----

- ...a. pseudopods.
- b. saprophytic.
- c. parasitic.
- d. scavengers.

49. Which pair of organisms live in a relationship of mutualism?

- a. remora fish and whales
- b. birds and soil
- c. rabbits and grass
- d. foxes and rabbits

50. What would be the result if corals did not have a symbiotic relationship with zooxanthellae?

- a. The corals would be unable to produce food and energy for themselves.
- b. The corals would have difficulty finding mates.
- c. The corals would migrate to areas where food was more abundant.
- d. The corals would change their feeding habits to become predatory.

51.----- is an organism which provides nourishment & shelter for parasite.

a.Parasite b.Host c.Virus d.Animal

52. Rat flea is example of -----

a.Epiparasite b.Ectoparasite c.Symbiosis d.Mutualism

53.Coral represent ----- relationship.

a.Commensalism b.Mutualism c.Parasitism d.Social parasitism

54.The term----- includes both host and parasite

a.Dermatology b.Parasitism c.Phylogeny d.Ecology

55.The host in which the parasite becomes adult, reaches maturity and passes its sexual reproduction is called-----

a.Definite host
b.Primary host
c.Natural host
d.Accidental host

56.Which of the following is/are zoonotic diseases----

a.Anthrax b.Typhoid c.Dengue d.All of the above

57.In Anthro-zoonoses infection is transmitted from-----

a.lower vertebrate to Man
b.Man to lower vertebrate
c.both from man to lower vertebrate and lower vertebrate to man
d.from Man to Man

58.Lichen is mutual relationship between----

a.Algae & Bryophyte
b.Angiospern & fungus
c.Algae & fungus
d.Fungus & plant

59.----- means eating at same table

a.Commensalism
b.Symbiosis
c.Parasitism
d.Proto cooperation

60. How you will control zoonotic diseases

- a. Keeping hands clean
- b. Choosing a pet wisely
- c. Handling food safely
- d. All of these

61. T.B. is caused by-----

- a. Mycobacterium leprae
- b. Salmonella typhi
- c. E. coli
- d. Mycobacterium tuberculosis

62. Signs of T.B infection is/are-----

- a. Chest pain
- b. Coughing up blood
- c. Loss in weight
- d. All of these

63. ----- disease spread from contaminated food or water

- a. AIDS
- b. Tuberculosis
- c. Typhoid
- d. Elephantiasis

64. ----- are diagnostic test performed to detect Typhoid

- a. Widal test
- b. Typhidot
- c. Tubex test
- d. All of these

65. ----- is polyphagous pest which is major pest of cotton

- a. Helicoverpa armigera
- b. Phyrilla perpusila
- c. Sitophilus oryzae
- d. Papilio demolius

66. ----- is serious pest on sugarcane

- Phyrilla perpusila
- Helicoverpa armigera
- Trichoderma
- Callobruchus chinensis

67. Red flour beetle also called as----

- a. Sitophilus oryzae
- b. Callobruchus chinensis
- c. Phyrilla perpusila

d. *Tribolium casaneum*

68.----- also called as lime butterfly *

- a. *Pyrilla perpusila*
- b. *Callobruchus chinesis*
- c. *Tribolium casaneum*
- d. *Papilio demolus*

69. Pupation of *Helicoverpa armigera* takes place in -----

- a. Soil
- b. On nonhost plant
- c. Twig
- d. Gram pod

70. Egg plug is made by female ----- at the time of oviposition.

- a. *Sitophilus oryzae*
- b. *Callobruchus chinensis*
- c. *Pyrilla purpusilla*
- d. *Papilio demolus*

71.----- is example of American breed.

- a. Rhode island
- b. Plymoth Rock
- c. Both a and b
- d. Leghorn

72. Objectives of poultry farming involves....

- a. To increase meat production
- b. To increase anual egg production
- c. To increase quality of meat and egg
- d. All of the above

73.----- must be considered during management of poultry farm

- a. Proper temperature
- b. Proper humidity
- c. Light
- d. All of the above

74. Kadaknath poultry bird is generally reared for----

- a. Egg purpose
- b. Meat purpose
- c. Both a and b
- d. Fighter bird

75. White leghorn birds are reared mainly for----

- a. Egg laying
- b. Meat
- c. Both Egg and meat
- d. Marketing

76. *Sitophilus oryzae* is common stored grain pest of-----

a. Maize b. Wheat c. Sugarcane d. Pulses

77. Which of the following is called as lesser grain borer----

a. *Tragoderma granarium* b. *Tribolium castaneum*

c. *Calandra oryzae* d. *Rhizopertha dominica*

78. The beetle, *Callosobruchus* causes damage to pulses----

a. larval and stored pulses b. adult and stored pulses c. larval and standing crops

d. adult and standing crops

79. Which of the following is scientific name of rice weevil ----

a. *Tragoderma granarium* b. *Sitophilus oryzae*

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80. Scientific name of pulse beetle is----

a. *Tragoderma granarium* b. *Sitophilus oryzae*

c. *Tribolium castaneum* d. *Rhizopertha dominica*

81. Common name of *Tribolium castaneum* is -----

a. Red flour beetle b. Rice weevil c. Khapra beetle d. Saw toothed grain beetle

82. ----- commonly called as rust red floor beetle/bran bug/flour beetle

a. *Tragoderma granarium* b. *Sitophilus oryzae*

c. *Tribolium castaneum* d. *Rhizopertha dominica*

83. Lime swallow tail/chequered swallowtail also referred as -----

a. *Sitophilus oryzae*

b. *Callosobruchus chinensis*

c. *Pyrilla purpusilla*

d. *Papilio demolus*

84. corn earworm also called as -----

a. *Sitophilus oryzae*

b. *Callosobruchus chinensis*

c. *Pyrilla purpusilla*

d. *Helicoverpa armigera*

85. Cannibalism behaviour is observed in the larvae of -----

- a. *Helicoverpa armigera*
- b. *Callosobruchus chinensis*
- c. *Pyrrilla purpusilla*
- d. *Sitophilus oryzae*

86. Egg cluster of *Pyrrilla purpusilla* covered by -----

- a. Soil
- b. Gum secreted by host plant
- c. Fluffy material secreted itself
- d. Excreta itself

87. Full grown nymph of *Pyrrilla purpusilla* bears ----

- a. Spines on thorax
- b. Hairy tuft at last abdominal segment
- c. Woolly outgrowth on abdomen
- d. horns on head

88. ----- is damaging stage of papilio

- a. larva
- b. Butterfly
- c. Pupal
- d. Nymphal

89. Pantotomid bug *Canthoconiea furcellata* is used to control ----- insect pest.

- a. *Papilio demoleus*
- b. *Pyrrilla purpusilla*
- c. *Callosobruchus chinensis*
- d. *Sitophilus*

90. Male *Callosobruchus chinensis* bears ----- type of antennae

- a. moniliform
- b. Pectinate
- c. Serrate
- d. Setaceous

91. Female *Callosobruchus chinensis* bears ----- type of antennae

- a. moniliform
- b. Pectinate
- c. Serrate
- d. Setaceous

92. Larval and pupal stages of the life cycle of *Callosobruchus chinensis* passes into-----

- a. Cell bored within the seed of pulses
- b. in the pod and on roof of the host plant
- c. in the flower of host plant
- d. in the soil at the base of host plant

93. In *Sitophilus oryzae* larval and pupal stage are completed in the -----

- a. Soil
- b. in the grain
- c. in pod
- d. in flower

94. ----- stored grain pest quickly move to hind deep in heap of grains when it disturbed.

- a. *Tribolium*
- b. *Callosobruchus*
- c. *Sitophilus*
- d. *Papilio*

95. The complete development of chick is in..?

- a). 18 – 20th day.
- b). 20 – 21st day
- c). 19 – 20th day.
- d). 18 – 19th day.

96. Brooder is an equipment to which is used for..?

- a). Rearing chicks.
- b). Hatching eggs.
- c). Incubating eggs.
- d). All of the above.

97. Which is an American breed of hen?

- a). Plymouth Rock.
- b). Dorking.
- c). Brown Leghorn.
- d). Cochin.

98. Which is an English breed of hen?

- a). White Leghorn.
- b). Dorking.
- c). Bursa.
- d). Denki.

99. Which is a Mediterranean breed of hen?

- a). Cornish.
- b). Brahma.
- c). Wyandotte.
- d). White Leghorn.

100. Which is an Asian breed of hen?

- a). Cochin.
- b). Brahma.
- c). Shanghai.
- d). All of the above.

101. Which is an Indian breed of hen?

- a). Aseel.
- b). Greyhittogon.
- c). Both a and b.
- d). None of the above

102. The temperature of poultry house should be..?

- a). 40 – 50 °F.
- b). 50 – 75 °F.
- c). 30 – 45 °F.
- d). 60 – 90 °F.

103. Layers require hrs of light per day?

- a). 14 – 15.
- b). 10 – 12.
- c). 12 – 14.
- d). 08 – 12

104. Broilers require hrs of light per day?

- a). 14 – 15.
- b). 15 – 18.
- c). 18 – 20.
- d). 12 – 14.

105. A layer requires square feet of area?

- a). 0.75 – 1.
- b). 3.0-3.6
- c). 1 – 1.5
- d). 2 – 2.5.

106. The origin place of kadaknath is..?

- a). Gujarat.
- b). Maharashtra.
- c). Chhattisgarh.
- d). Madhya Pradesh.

107. Which is an old method of hen rearing?

- a). Cage system.
- b). Intensive.
- c). Deep litter.
- d). None of the above

108. What is culling in hens?

- a). Cutting feathers.
- b). Cutting beaks.
- c). To separate weak and non-profitable hens.
- d). None

109. The most deadly disease in a poultry farm is..?

- a). Fowlpox.
- b). Fowl cholera.
- c). Infectious.
- d). New castle.

110. Infectious bronchitis is a..?

- a). Bacterial disease.
- b). Viral disease.
- c). Insect disease.
- d). Fungal disease.

111. Fowl cholera is a..?

- a). Bacterial disease.
- b). Viral disease.
- c). Insect disease.
- d). Fungal disease.

112. R. D. vaccine is useful against..?

- a). Ranikhet.
- b). Pox.
- c). Infectious bronchitis
- d). White diarrhea.

113. The care and management of young chicks during early part of their life is called -----

- a. Brooding
- b. laying
- c. culling
- d. None of the above

114. Poultry farming involves domestication of ----- bird/birds.

- a. Goose
- b. Turkeys
- c. Chickens & ducks
- d. All of these

115. ----- is most popular Mediterranean breed.

- a. Plymouth
- b. Rhode island
- c. Leghorn
- d. All of these

116. . *Sitophilus oryzae* is common stored grain pest of-----

- a. Maize
- b. Wheat
- c. Sugarcane
- d. Pulses

117. Scientific name of pulse beetle is----

- a. *Tragoderma granarium*
- b. *Tribolium castaneum*
- c. *Callosobruchus*
- d. *Sitophilus*

118. For the host, the most dangerous relationship with another organism is----

- a. Symbiosis
- b. Parasitism
- c. Commensalism
- d. Mutualism

119. The origin place of Kadaknath is?

- a. Gujarat
- b. Maharashtra
- c. Chhattisgarh
- d. Madhya Pradesh

120. The definitive host for *Plasmodium* is -----

- a. Mosquito
- b. Man
- c. Rat
- d. Pig

121. T.B. is caused by-----

- a. *Mycobacterium leprae* b. *Salmonella typhi* c. *E. coli* d. *Mycobacterium tuberculosis*

122.----- is polyphagous pest which is major pest of cotton

- a. *Helicoverpa armigera* b. *Phyrrilla perpusila* c. *Sitophilus oryzae* d. *Papileo demolius*

123. ----- is serious pest on sugarcane

- a. *Phyrrilla perpusila* b. *Helicoverpa armigera* c. *Trichoderma* d. *Callobruchus chinesis*

124. Red flour beetle also called as----

- a. *Sitophilus oryzae* b. *Callobruchus chinesis* c. *Phyrrilla perpusila* d. *Tribolium castaneum*

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- a. Rearing chicks b. Hatching eggs c. Incubating eggs d. All of the above

126. Objectives of poultry farming involves....

- a. To increase meat production b. To increase annual egg production
c. To increase quality of meat and egg d. All of the above

127. White leghorn birds are reared mainly for----

- a. Egg laying b. Meat c. Both Egg and meat d. Marketing

128. ----- is damaging stage of *Papileo*

- a. Larva b. Butterfly c. Pupal d. Nymphal

129. In *Sitophilus oryzae* larval and pupal stage are completed in the -----

- a. Soil b. in the grain c. in pod d. in flower

130. Which of the following organism responsible for T.B. -----

- a. Protozoa b. Fungus c. Virus d. Bacteria

131. Which is an American breed of hen?

- a. Plymouth Rock b. Dorking c. Brown Leghorn d. Cochin

132. -----Describes the interaction of two organisms living together

- a. Symbiosis b. Biology c. Microbiology d. Parasitology

133. Causitive agent for enteric fever is-----?

- a. *Escherischia* b. *Salmonella* c. *Tuberculosis* d. all of these

134. The BCG vaccine is administered for immunity against -----

- a. Malaria b. Tuberculosis c. Jaundice d. Hepatitis

135. A relationship between two organisms in which one benefits at the expense of the other

is called as -----

- a. Parasitism b. Mutualism c. Commensalism d. Amensalism

Q.2. Give the answers of the following questions

1. Describe in detail causative agent, transmission, symptoms and control measures of Typhus fever?

2. Enlist Different breeds of fowl. Explain in detail management of Poultry

3. Describe in detail life cycle, host,damage caused and economic importance of *Sitophilus oryzae*?

1. Describe in detail causative agent, transmission, symptoms and control measures of Typhoid?

2. Define parasite. Explain in detail about symbiosis and parasitism .

3. Describe in detail life cycle, host,damage caused and economic importance of *Papilio demolius*?

4. Describe in detail life cycle, host,damage caused and economic importance of *Sitophilus oryzae*?

5. Describe in detail life cycle, host,damage caused and economic importance of *Callosobruchus chinensis*?

6. Describe in detail life cycle, host, damage caused and economic importance of *Helicoverpa armigera*?

7. Describe in detail life cycle, host, damage caused and economic importance of *Pyrilla perpusilla*?

8. Describe in detail life cycle, host, damage caused and economic importance of *Tribolium castaneum*?

9. Enlist Different breeds of fowl. Explain in detail different systems of Poultry

10. Give an account on management of broilers

11. Give an account of Management of Breeding stock

Q.3. Write short note on following

1. Control measures of Syphilis

2. Control measures of Tuberculosis

- 3. Preservation of Eggs**
- 4. Mutualism**
- 5. Exotic breeds of Fowl**
- 6. Symbiosis**
- 7. Parasitism**
- 8. Typhidot test**
- 9. Zoonosis**
- 10. Different systems for poultry farming**
- 11. Economic importance of *Helicoverpa armigera***
- 12. Basic requirement of poultry housing**
13. Egg processing
14. Poultry House
15. Nutrients of poultry bird
16. Feed management
17. Litter Management
18. Commercial methods of Egg preservation
19. Environmental management in Poultry house