

# **Yashwantrao Chavan College of Science, Karad.**

## **B.Sc. Part II Semester -IV**

### **Paper- VIII APPLIED ZOOLOGY I Question Bank**

#### **Multiple choice questions**

1. 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.
2. 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.
3. 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
4. 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
5. Rat flea is example of -----
  - a. Epiparasite
  - b. Ectoparasite
  - c. Symbiosis
  - d. Mutualism
6. Coral represent ----- relationship.
  - a. Commensalism
  - b. Mutualism
  - c. Parasitism
  - d. Social parasitism

7. The term----- includes both host and parasite  
a.Dermatology b.Parasitism c.Phylogeny d.Ecology
8. 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
9. The first person who discovered *Mycobacterium tuberculosis* was  
(a) Louis Pasteur  
(b) Robert Koch  
(c) Edward Jenner  
(d) None of the above
10. For Tuberculosis, the drugs used to combat it are  
(a) Streptomycin, Pyrazinamide  
(b) Isoniazid, Rifampicin  
(c) Both (a) and (b)
11. Which type of symbiosis occurs between barnacles and whales?  
a.parasitism b.succession c.commensalism d.mutualism
12. Fungi that feed on a host and harm the host are-----  
...a.pseudopods. b.saprophytic. c.parasitic. d.scavengers
13. Patients with typhoid fever will die ?  
a.) True b.) False  
b.) Neither true nor false d.) Statement is incorrect
14. 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

15. -----is known as "enteric fever".  
a.TB b.typhoid c.swine flue d.encephalitis
16. Scientific name of pulse beetle is----  
a.Tragoderma granarium    b.Tribolum castaneum  
c.Callobruchus                d.Sitophilus
17. Common name of *Tribolum castaneum* is -----  
a.Red flour beetle b. Rice weevil c. Khapra beetle d.Saw toothed grain beetle
18. For the host, the most dangerous relationship with another organism is----  
a.Symbiosis b.Parasitism c.Commensalism d.Mutualism
19. 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.
20. 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 rabbit
21. Cannibalism behaviour is observed in the larvae of -----  
a.Helicoverpa armigera  
b.Callobruchus chinensis  
c.Pyrilla purpusilla  
d. Sitophilus oryzae
22. Egg cluster of *Pyrilla purpusilla* covered by -----  
a.Soil  
b.Gum secreted by host plant  
c. Fluffy material secreted itself  
d. Excreta itself
23. Full grown nymph of *Pyrilla purpusilla* bears----  
a.Spines on thorax  
b.Hairy tuft at last abdominal segment  
c.Wooly outgrowth on abdomen  
d.horns on head

24. 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

25.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

25. 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

26. 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

27. 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.

28. 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.

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

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

30. 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
31. The causative of tuberculosis is
- (a) Virus
  - (b) Bacterium
  - (c) Malnutrition
  - (d) Protozoan
  - (e) None of these
32. The BCG vaccine is administered for immunity against
- (a) Malaria
  - (b) Tuberculosis
  - (c) Jaundice
  - (d) Hepatitis
33. Any organism or agent that produces a disease is known as a
- A) Pathogen
  - B) Commensal
  - C) Reservoir
  - D) Vector
34. Which of the following diseases is spread via vector-borne transmission?
- a) Lyme disease
  - b) Encephalitis
  - c) Plague
  - d) All of the above
35. 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.

36. 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.
37. Which test is done for the diagnosis of typhoid fever ?
- a) ELISA test    b.) Widal test    c) Both a and b    d.) Urine test
38. What is the structure of typhoid causing bacteria?
- a.) Flagellated    b.) Non-flagellated
  - b.) Rod shaped    d.) Both (a) and (c)
39. The causative of Tuberculosis produces Tuberculin, it is a/an
- (a) enzyme
  - (b) hormone
  - (c) endotoxin
  - (d) exotoxin
40. This is the main symptom of Tuberculosis
- (a) Liquid formation
  - (b) Tubercle formation
  - (c) both (a) and (b)
  - (d) None of these
41. ----- also called as lime butterfly \*
- a. *Pyrrilla perpusila*
  - b. *Callobruchus chinesis*
  - c. *Tribolium casaneum*
  - d. *Papilio demolus*
42. 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

43. 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
44. Pupation of *Helicoverpa armigera* takes place in -----
- a. Soil
  - b. On nonhost plant
  - c. Twig
  - d. Gram pod
45. Egg plug is made by female ----- at the time of oviposition.
- a. *Sitophilus oryzae*
  - b. *Callosobruchus chinensis*
  - c. *Pyrilla purpusilla*
  - d. *Papilio demolus*
46. Lichen is mutual relationship between----
- a. Algae & Bryophyte
  - b. Angiosperm & fungus
  - c. Algae & fungus
  - d. Fungus & plant
47. ----- means eating at same table
- a. Commensalism
  - b. Symbiosis
  - c. Parasitism
  - d. Proto cooperation
48. Scientific name of pulse beetle is----
- a. *Tragoderma granarium*
  - b. *Sitophilus oryzae*
  - c. *Tribolium castaneum*
  - d. *Rhizopertha dominica*
49. Common name of *Tribolium castaneum* is -----
- a. Red flour beetle
  - b. Rice weevil
  - c. Khapra beetle
  - d. Saw toothed grain beetle

50. ----- commonly called as rust red floor beetle/bran bug/flour beetle  
a. *Tragoderma granarium* b. *Sitophilus oryzae*  
c. *Tribolium castaneum* d. *Rhizopertha dominica*
51. Lime swallow tail/chequered swalotail also referred as -----  
a. *Sitophilus oryzae*  
b. *Callobruchus chinensis*  
c. *Pyrilla purpusilla*  
d. *Papilio demolus*
52. Which of the following is an example of most common sign of infection?  
a) Loss of appetite  
b) Malaise  
c) Pain  
d) Fever
53. The site or natural environmental location in which a pathogen normally resides is called  
a) Source  
b) Reservoir  
c) Vector  
d) Hot zone
54. Kadaknath poultry bird is generally reared for----  
a. Egg purpose  
b. Meat purpose  
c. Both a and b  
d. Fighter bird
55. ----- are diagnostic test performed to detect Typhoid  
a. Widal test  
b. Typhidot  
c. Tubex test  
d. All of these
56. ---- is polyphagous pest which is major pest of cotton  
a. *Helicoverpa armigera*  
b. *Phyrilla perpusila*



- c. *Sitophilus oryzae*
- d. *Papilio demolius*

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

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

58. Elephantiasis is caused by .....

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

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

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

60. A symbiotic relationship in which both organisms benefit is .

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

61. 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

62. Which is an American breed of hen?

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

## Long answer question

1. Describe in detail life cycle, host, damage caused and economic importance of *Tribolium castaneum*?
2. Enlist Different breeds of fowl. Explain in detail different systems of Poultry
3. Describe in detail causative agent, transmission, symptoms and control measures of Typhoid?
4. Give an account of Management of Breeding stock
5. Describe in detail life cycle, host, damage caused and economic importance of *Pyrrilla perpusilla*?
6. Give an account on management of broilers
7. Define parasite. Explain in detail about symbiosis and parasitism .
8. Describe in detail life cycle, host,damage caused and economic importance of *Sitophilus oryzae*?
9. Describe in detail life cycle, host, damage caused and economic importance of *Callosobruchus chinensis*?
10. Enlist Different breeds of fowl. Explain in detail management of Poultry
11. Describe in detail life cycle, host, damage caused and economic importance of *Papilio demolius*?
12. Describe in detail life cycle, host, damage caused and economic importance of *Helicoverpa armigera*?
13. Describe in detail causative agent, transmission, symptoms and control measures of Typhus fever?

## Short answer questions

1. Preservation of Eggs
2. Mutualism
3. Exotic breeds of Fowl
4. Symbiosis
5. Parasitism

6. Typhidot test
7. Different systems for poultry farming
8. Economic importance of *Helicoverpa armigera*
9. Basic requirement of poultry housing
10. Nutrients of poultry bird
11. Feed management
12. Litter Management
13. Control measures of Syphilis
14. Control measures of Tuberculosis
15. Zoonosis
16. Egg processing
17. Poultry House
18. Commercial methods of Egg preservation
19. Environmental management in Poultry house

Seat No.	
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B.Sc. (Part-II) (Semester -IV) Examination, APRIL- 2023  
Microbiology (Paper VIII)  
Basics in medical microbiology and immunology  
Sub. Code – 78914

Day and Date - Friday 23/06/2023  
Time- 2:30p.m. to 4:30 p.m.

Total marks- 50

- Instruction: 1) All questions are compulsory.  
2) Draw neat labeled diagrams wherever necessary  
3) Figures to the right indicate full marks.

Q 1) Answer the following questions choosing the correct alternatives given below them.

10 Marks

- 1) Which of the following is secretory antibody ?  
a) IgG      b) IgD  
c) IgA      d) IgE 2) A hapten is \_\_\_\_\_  
a) Immunogenic      b) Non-immunogenic  
c) Carrier      d) None of the above
- 3) Cholera is \_\_\_\_\_ type of infection.  
a) Airborne      b) Waterborne  
c) Foodborne      d) Direct Contact
- 4) How many antigen binding sites present on IgM?  
a) One      b) Two  
c) Five      d) Ten
- 5) Which of the following is first scientifically approved vaccine?  
a) Polio vaccine      b) Small pox vaccine  
c) BCG vaccine      d) Tetanus vaccine
- 6) Chemically antibodies are \_\_\_\_\_  
a) Proteins      b) Lipids  
c) Nucleotides      d) Carbohydrate
- 7) The occurrence of cases of deaths in a population at specified period of times is known as \_\_\_\_\_  
a) Morbidity rate      b) Fertility  
c) Mortality rate      d) None of the above

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8) Tears contain \_\_\_\_\_ as an antibacterial agent.

- a) Lysozyme
- b) Interferon
- c) Properdin
- d) Complement

9) Who develop the vaccine.....

- a) Alexander Fleming
- b) Edward Jenner
- c) Robert Koch
- d) Robert hook

10) Which of the following antibody plays role in hypersensitivity.

- a) IgE
- b) IgM
- c) IgG
- d) All of above

Q2) Attempt any Two

20 Marks

- 1) Describe in detail different types of infection. ✓
- 2) Explain in detail different types of immunoglobulins. 58 ✓
- 3) Describe in detail prevention and control on microbial diseases.

Q 3 Write short notes (Any four)

20 Marks

- 1) Acquired immunity ✓
- 2) Immune response ✓
- 3) Epidemic disease ✓
- 4) Vector born transmission. ✓
- 5) Antigen. ✓
- 6) Virulence factors. ✓

IC

type of i