

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

M.Sc. DEGREE EXAMINATION – ZOOLOGY

THIRD SEMESTER – NOVEMBER 2009

**BT 3901 - MEDICAL MICROBIOLOGY**

Date & Time: 07/11/2009 / 9:00 - 12:00 Dept. No.

Max. : 100 Marks

**PART A**

(20 marks)

**Answer All questions**

*I Choose the Correct Answer*

(5 x 1 = 5 marks)

01. Match A) obligate anaerobe B) acidfast C) coccobacilli D) diplococcus

with i) *Klebsiella* ii) *Neisseria* iii) *Clostridium* iv) *Mycobacterium*

a) A-ii, B-iv, C-iii, D) i b) A-ii, B-i, C-iv, D) iii

c) A-ii, B-iii, C-i, D) iv d) A-ii, B-iv, C - i, D - iii

02. Which among the following is the critical phase of disease process?

a. transmission b. carrier c. multiplication d. portal of exit

03. **Find out the correct sequence in phagocytosis.**

- a) **Digestion, ingestion, attachment, chemotaxis**
- b) **Chemotaxis, ingestion, Digestion, attachment**
- c) **Chemotaxis, attachment, ingestion, Digestion**
- d) **attachment, chemotaxis, Digestion, ingestion,**

04. DPT refers to:

- a. Diphtheria, Polio, Typhoid b. Diarrhoeae, Polio, Tetanus
- c. Diphtheria, Pertusis, Tetanus d. Diphtheria, Polio, Tetanus

05. Which of the following is the most common type of tetanus?

- a. generalized b. neonatal c. cephalic d. local

*II State whether the following are True or False. If false, given reason (5 x 1 = 5 marks)*

06. Credé method refers to the application of 1% Copper Sulphate in the eyes of the newborn infants to prevent gonococcal infection of eyes.

07. Normal biota occurs as commensals and they can also be opportunistic.

08. Agglutination is the most of all test tube antigen-antibody reactions.

09. The causal organism of typhoid is a gram positive, monotrichous, nonsporing bacterium.

10. *Microsporium* is an important dermatophytic fungus.

*III. Complete the following*

(5 x 1 = 5 marks)

11. \_\_\_\_\_ used in the principle of vaccination first, but the term vaccination was coined by \_\_\_\_\_

12. \_\_\_\_\_ is responsible for the virulence of *Pneumococcus*.

13. Nystatin is obtained from \_\_\_\_\_ .

14. Trichomoniasis is caused by \_\_\_\_\_ .

15. HIV belongs to the family \_\_\_\_\_ and it has a single stranded \_\_\_\_\_ .

IV. Answer all, each in about 50 words

(5 x 1 = 5 marks)

16. What is fractional sterilization?
17. Write down any two negative roles of normal biota in our body.
18. What is complement fixation?
19. Write any two points about the causal organism for diphtheria.
20. Enumerate any two points about madcow disease.

### PART B

Answer any **five**, each within 350 words only. Draw diagrams and flowcharts wherever necessary.

(5 x 8 = 40 marks)

21. Write about the importance of radiation in the control of microbes.
22. What are exotoxins? Enumerate their characteristics.
23. Explain the principle and applications complement fixation tests.
24. Discuss the causal organism, symptoms and treatment for amoebiasis.
25. Explain the symptoms of chicken pox in various stages. Add a note on its prevention.
26. Explain the following with a foot note each.
  - a) HEPA
  - b) ISP
  - c) PMNL
  - d) TCBS
27. Define the following.
  - a) Impetigo
  - b) Sanitation
  - c) Symbiosis
  - d) Complement
28. Distinguish between (Any one difference each)
  - a. Cutaneous and Inhalation anthrax
  - b. Candidiasis and Trichomoniasis (Symptom)
  - c. Disinfectant and Antiseptic
  - d. Chronic and Incubatory carrier

### PART C

Answer the following, each within 1500 words only. Draw diagrams and flowcharts wherever necessary.

(2 x 20 = 40 marks)

29. a. Give an account of the following chemical agents used in the control of microbes:
    - i). Phenols
    - ii). Halogens
    - iii). Acids and Alkalies
    - iv). Gaseous chemosterilizers
- OR
- b. Write short notes on
    - i). Outline of Immunity
    - ii). Any three antibiotics
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29. a. Describe the causal organism, symptoms, mode of transmission and prevention of AIDS
- OR
- b. Explain the following
    - i) Cholera- Causal organism, symptoms and treatment
    - ii) Tetanus- Causal organism, symptoms and prevention

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