



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION - PLANT BIOLOGY & PLANT BIO-TECH.

FIFTH SEMESTER – NOVEMBER 2011

PB 5405 - MEDICAL MICROBIOLOGY

Date : 12-11-2011
Time : 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. Phenol was first used as a disinfectant by
a. Lister b. Pasteur c. Metchnikoff d. Jenner
02. Which one of the following is not a component of streptomycin?
a. Streptose b. Streptidine c. N-methyl L-glucosamine d. β - lactam ring
03. An antiviral agent used in the treatment of infectious diseases is:
a. interleukin b. interphase c. interferon d. interlysin
04. Acid – fast staining is a differential staining used to detect _____.
a. G^+ & G^- b. *Mycobacterium* c. *Salmonella* d. *Clostridium*
05. Statement A: The causal organism of Typhus fever belongs to Rickettsia group.
Statement B: It is an obligate intracellular parasite.
a) A is correct, but B is incorrect c) A is incorrect, but B is correct
b) Both A and B are correct d) Both A and B are incorrect

II State whether the following are True or False. If false, given reason

(5 x 1 = 5 marks)

06. Disinfection refers to the complete destruction of all forms of microbial life.
07. Inhibition of protein synthesis is achieved by cephalosporin.
08. Precipitation is the most striking of all test-tube antigen-antibody reactions.
09. Histoplasmosis is a dermatophytic infection caused by a fungus.
10. *Clostridium tetani* is a gram negative, obligate aerobic spore forming Bacillus.

III. Complete the following

(5 x 1 = 5 marks)

11. HEPA filter is a component of -----.
12. Griseofulvin is produced from the microbe -----.
13. The normal microbe present in an adult eye is -----.
14. The most virulent form of Hepatitis virus is -----
15. Tetanus can be prevented by the vaccine -----.

IV. Answer all, each in about 50 words

(5 x 1 = 5 marks)

16. Distinguish between antiseptics and disinfectant.
17. Comment on disc diffusion technique.
18. Give the roles of Natural Killer Cells.
19. Give the salient features of Histoplasmosis pathogens.
20. Mention any two points about the treatment of Rabbits disease.

PART B

(5 x 7 = 35 marks)

Answer the following each within 350 words only. Draw diagrams and flow charts wherever necessary.

21. (a) Write about the control of microbes by alcohol and gaseous chemosterilizers.
Or
(b) Explain moist heat and dry heat sterilization techniques used to control microbial growth.
22. (a) Describe the mode of action and applications of sulpha drugs.
Or
(b) Give the sources, mode of action and application of streptomycin.
23. (a) Comment on Complement fixation test and its applications.
Or
(b) Explain about various innate immunity of human.
24. (a) Write about the pathogens, symptoms and control of Hepatitis.
Or
(b) Give details on the pathogen, symptoms and diagnosis of systemic mycoses.
25. (a) Describe about the pathogens and control measures for tetanus.
Or
(b) Describe the life cycle of malarial parasite.

PART C

(3 x 15 = 45 marks)

Answer any three of the following, each within 1200 words only. Draw diagrams and flowcharts wherever necessary.

26. Give an account of the phenols, dyes and heavy metals used in the control of microbes.
27. Write details on the development of drug resistance by pathogens.
28. Explain adoptive immunity developed by human body.
29. Describe the pathogen, symptoms, diagnosis and control measures of cholera.
30. Explain the Life cycle of HIV. Add a note on its diagnosis.
