

ELECTIVE- MEDICAL MICROBIOLOGY

Fourth Semester M.Sc. Degree Examination (CSS) –Zoology

ZY 4D ET 01 Course 1- GENERAL MICROBIOLOGY AND PARASITOLOGY

Time: 3 hours

Total Weight: 30

Section I-Short answer type questions

Weight-1

Answer any 10 out of 12

1. What is AntibioGram?
2. Differentiate MIC and MBC.
3. Comment on Peptidoglycan.
4. Write the relevance of Spore Staining.
5. What are Food borne diseases? Give examples.
6. Write notes on Sand fly borne parasitic infections.
7. Briefly describe the clinical significance of *Giardia*.
8. What is Tyndallisation.
9. Distinguish between mesophiles and thermophiles.
10. Comment on autotrophic bacteria.
11. What is meant by resolving power of a microscope?
12. Mention any four food borne diseases and its causes.

Section II-Short essay type questions

Weight- 2

Answer any 5 out of 8

13. Write the principle and procedure of Ziehl-Neelsen staining.
14. Give an account on milk contamination.
15. Discuss the relevance and future of microbiology.
16. Explain the role of mosquito in the transmission of diseases.
17. Give an account on antifungal agents.

18. Explain the life cycle of *Entamoeba histolytica*.
19. Describe the mechanism of action of antibiotics.
20. Explain the method of isolation and maintenance of pure culture.

Section III- Long essay type questions

Weight- 5

Answer any 2 out of 3

21. Describe the microbial growth curve and explain how various environmental parameters affect the growth of micro organisms.
22. Explain the principle, precautions, types and applications of autoclaves.
23. Explain the ultra structure of bacteria.

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ZY 4D ET 02 Course 1I - BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Time: 3 hours

Total Weight: 30

Section I-Short answer type questions

Weight-1

Answer any 10 out of 12

1. Comment on the significance of Vi antigen.
2. What is Nucleocapsid?
3. Briefly describe Toxic shock syndrome.
4. What are Negri bodies?
5. Give the symptoms of Q – fever.
6. What are dimorphic fungi?
7. Comment on Gas Gangrene
8. Define Tuberculoid leprosy.
9. Comment on HIV and AIDS
10. Briefly describe the pathogenicity of *Helicobacter* and *Clostridium*.

11. Distinguish between lytic and lysogenic phages. Give examples.

12. Comment on opportunistic mycoses.

Section II- Short essay type questions

Weight-2

Answer any 5 out of 8

13. What are retro viruses? Explain their replication.

14. Describe the pathogenicity and diagnosis of *Neisseria gonorrhoeae*.

15. Give an account on cancer causing viruses.

16. Explain the causes, consequences and remedies of Anthrax.

17. Describe Systemic mycosis.

18. Explain the methods of laboratory diagnosis of *Streptococcus pyogenes*.

19. Describe the diseases caused by Herpes viruses.

20. Give an account on Syphilis.

Section III- Long essay type questions

Weight- 5

Answer any 2 out of 3

21. Describe various fungal culture techniques and different types of fungal culture media.

22. Write an essay on the prophylaxis of important communicable diseases.

23. Give an account on the mechanism of viral pathogenicity.

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ZY 4D ET 03 Course III - CLINICAL MICROBIOLOGY

Time: 3 hours

Total Weight: 30

Section I-Short answer type questions

Weight-1

Answer any 10 out of 12

1. What is IMVic test?

2. Comment on the significance of Anti Streptolysin O test.

3. What are Opportunistic infections?

4. Give the principle of Complement Fixation test.
5. What is Cytopathic effect?
6. Differentiate between Bacteremia and septicemia.
7. Comment on the clinical significance of Rectal swabs.
8. Define Petroff's method.
9. What is Widal test?
10. Write notes on any two blood helminthes and the diseases caused by them.
11. Comment on 3 R Principles.
12. Name any four Retroviruses.

Section II –Short essay type questions

Weight- 2

Answer any 5 out of 8

13. Describe the collection and diagnosis of throat and mouth specimens.
14. Explain the method of cultivation of viruses.
15. Describe the collection of specimens for the detection of parasites.
16. Give an account on the diagnostic procedure for superficial mycosis.
17. Briefly describe the safety measures in clinical microbiology laboratory.
18. Describe the method of collection of cerebrospinal fluid.
19. Comment on normal microbial flora of gastro-intestinal tract of man.
20. Describe the floatation and sedimentation technique.

Section III- Long essay type questions

Weight- 5

Answer any 2 out of 3

21. Explain the procedures for the diagnosis of viral diseases.
22. Write an essay on the laboratory methods for the diagnosis of parasitic infections.
23. Discuss the important biochemical tests for the identification of bacteria.