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SC—2012

SECOND YEAR B.Sc. (M.L.T.) DEGREE EXAMINATION, 2002

MICROBIOLOGY—II (Theory)

Time : Three Hours | Maximum : 80 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

I. Long Essays : (Answer any *two*)

1. Describe the laboratory diagnosis of bacterial meningitis.
2. Classify mycobacteria and describe the morphology pathogenicity laboratory diagnosis of mycobacterium leprae.
3. Name the intestinal nematodes. Describe the life-cycle, pathogenicity and laboratory diagnosis of ascaris lumbric lumbricoides.

(2 × 10 = 20 marks)

II. Short Essays : (Answer any *eight*)

4. Sexually transmitted bacterial diseases.
5. Classification of streptococci.
6. Prophylaxis against tetanus.
7. Anaerobic infection.
8. Diphtheroids.
9. Plasmodium falciparum.
10. Entamoeba histolytica.
11. Stool examination.
12. Larval stage of cestodes.
13. Laboratory diagnosis of enterobius vermicularis.

(8 × 5 = 40 marks)

III. Short Answers :

14. Casoni test.
15. Protozoal cysts.
16. Miracidium.
17. Cercaria.
18. Scolex of tape worm.
19. Grams stain.
20. C-reactive protein.
21. X and V factors.
22. Coagulase test.
23. Oxidase test.

(10 × 2 = 20 marks)

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SC—2013

SECOND YEAR B.Sc. (M.L.T.) DEGREE EXAMINATION, 2002

BIOCHEMISTRY—II

Time : Three Hours

Maximum : 80 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

I. Long Essays : (Answer any *two*)

1 Describe citric acid cycle pathway. Add a note on its energetics.

2 Give an account of sources, daily requirement, functions and deficiency symptoms of Vitamin D.

3 Explain the principles and uses of spectrophotometry.

(2 × 10 = 20 marks)

II. Short Essays : (Answer any *eight*)

4 Coenzymes.

5 Structure of Glycogen.

6 Electrophoresis.

7 Functions of tocopherol.

8 Effect of temperature of enzyme activity.

9 Pellagra.

10 Preparation of protein free filtrate.

11 How do you do G.T.T. ? Explain the different types of curve obtained.

12 Importance of H.M.P. shunt pathway.

13 Antioxidants.

(8 × 5 = 40 marks)

III. Short Answers :

14 Renal Glycosuria.

15 Barfoed's test.

16 Indicate the normal value of blood urea. Mention the condition in which it is increased.

17 Filters used in paotometry.

18 Anomers.

19 Mention the coenzymes involved in carboxylation and decarboxylation reactions.

20 Substrate binding site.

21 Name *two* enzymes of clinical importance. Indicate their normal values in serum.

22 Provitamin of Vitamin-A.

23 Jaffe's test.

(10 × 2 = 20 marks)

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SC—2011

SECOND YEAR B.Sc. (M.L.T.) DEGREE EXAMINATION, 2002

PATHOLOGY—II (Theory)

Time : Three Hours | Maximum : 80 Marks

Your answers shall be specific to the questions asked.
Draw neat and labelled diagrams wherever necessary.

I. Long Essays : (Answer any *two*)

1 Write an essay on the various types of microscopes, with brief notes on the specific uses of these different types of microscopes.

2 What are the various steps in the processing of tissue to make histopathology slides ? Write briefly on the necessity and importance of each of these steps. Name the chemicals and other substances used in these steps.

3 What are the absolute hematological indices ? Describe the tests that will have to be done to calculate these indices in a given blood sample.

(2 × 10 = 20 marks)

II. Short Essays : (Answer any *eight*)

4 Write a brief note on microphotography.

5 Write a brief note on preparing and mounting a specimen for display in a museum.

6 How do you do the test for platelet count ?

7 Write a brief note on the common stains used in histopathology and three special stains.

8 Write a brief note on the toal W.B.C. count and differential WBC count.

9 List the investigations that will have to be done in the investigation of a bleeding disorder.

10 How do you do the test for Bence-Jones protein ?

11 Write a brief note on haemoglobin electrophoresis.

12 Write a note on the various normal and abnormal erythrocytes that may be seen in a peripheral blood smear.

13 Write a brief note on Haemoparasites.

(8 × 5 = 40 marks)

III. Short Answers :

14 Name the common anticoagulants and their uses.

15 What is Cyto chemistry ?

16 What is quality control in a laboratory ?

17 What is Buffy coat ? How do you prepare of Buffy coat smear ?

18 List the stains used in Haematology.

19 List the different types of microtomes.

20 What is frozen section ? Why and how is it done ?

21 Principles of working of a particle counter.

22 List the various methods of estimating hemoglobin.

23 Differences in the appearances of mature and immature polymorphs and Lymphocytes.

(10 × 2 = 20 marks)

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