F–1608

Sub. Code
7BMC1C1

B.Sc. DEGREE EXAMINATION, APRIL 2019

First Semester

Microbiology and Clinical Lab Technology

GENERAL MICROBIOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define : Monera.
2. Spontaneous generation.
3. Condensor.
4. Capsule staining.
5. Starch granules.
6. Aplanospore.
7. Hot air oven.
8. Enriched media.
9. Psychrophiles.
10. Symport.

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Comment on recent developments in microbiology.

Or

(b) Write about Whittaker's five kingdom concept.

12. (a) Give a short note on working principle and dues used in fluorescent microscopy.

Or

(b) Comment on the principle and procedure for spore staining.

13. (a) Write about the ultra structure of bacterial plasma membrane.

Or

(b) Give a short note on general characteristics of fungi.

14. (a) How will you sterilize heat-sensitive fluids?

Or

(b) Comment on antimicrobial resistance.

15. (a) Write a short note on any three physical factors influencing growth of microbes.

Or

(b) How bacteria are classified on the basis of their nutritional requirements?

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Discuss about the contributions any five scientists in microbiology.

17. Briefly explain the working principle and sample preparation for SEM.

18. Explain about the ultra structure of bacteria with neat diagram.

19. Detailed account on different types of culture media.

20. Discuss in detail about the transport of nutrients in bacteria.

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F–1609

Sub. Code
7BMC2C1

B.Sc. DEGREE EXAMINATION, APRIL 2019

Second Semester

Microbiology and Clinical Lab Technology

CLINICAL BIOCHEMISTRY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Part A (10 × 2 = 20)

Answer **all** questions.

1. Define CSF.
2. Define Buffer.
3. Hyperglycemia.
4. Diabetes mellitus.
5. Triglyceride.
6. Xanthomatosis.
7. Cystinuria.
8. β-pleeted sheet.
9. SGPT.
10. Keratomalacia.

Part B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) How will you collect different types of clinical samples?

Or

(b) Write about the clinical significance of electrolytes.

12. (a) Give a short note on hypo and hyperglycemia.

Or

(b) Write about the principle and techniques of Glucose Tolerance Test.

13. (a) Define lipids and write down its physical and chemical properties.

Or

(b) Write a short note on actiology and clinical features of Atherosclerosis.

14. (a) How will you classify amino acids based on their structure?

Or

(b) Write about the clinical significance of uric acid and creatinine.

15. (a) Give a short note on urine analysis for bile salt and bile pigments.

Or

(b) Give details about kidney function test.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Briefly discuss about the basic physiology of blood.

17. Discuss in detail about the applications of different types of carbohydrates.

18. Explain in detail about the disorder of lipid metabolism.

19. Briefly explain about the structure of proteins.

20. Write a detailed account on diseases associated with vitamins deficiency.

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F–1611

Sub. Code
7BMC4C1

B.Sc. DEGREE EXAMINATION, APRIL 2019

Fourth Semester

Microbiology and Clinical Lab Technology

MOLECULAR BIOLOGY AND MICROBIAL GENETICS

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 75 Marks

Section A (10 × 2 = 20)

Answer **all** the questions.

1. Gene.
2. Z-DNA.
3. Spontaneous mutation.
4. Hot spot mutation.
5. DNA ligase.
6. Replication fork.
7. TATA box.
8. Aminoacyl tRNA synthetase.
9. Lac-Z.
10. Exon.

Section B (5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Write in detail about the Hershey-chase experiment.

Or

(b) Write a short notes on Griffith experiment.

12. (a) Write a short notes on excision repair process.

Or

(b) Write a short notes on chemical agents induced the mutation.

13. (a) Write a short notes on enzymes involved in the DNA replication process.

Or

(b) Describe the various inhibitors of the DNA replication.

14. (a) Define in brief about prokaryotic transcription.

Or

(b) Explain briefly about the initiation of translation process.

15. (a) Write a short notes on structural genes of Lac operon.

Or

(b) Explain the attenuation process of Trp operon.

Section C (3 × 10 = 30)

Answer any **three** questions.

16. Explain any one type of RNA with neat structure.

17. Write detailed notes on recombination repair mechanism of DNA.

18. Explain the DNA replication process.

19. Explain the process of eukaryotic transcription.

20. Explain about the regulation of eukaryotic genes.

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F–1722

Sub. Code
7BMCA4

U.G. DEGREE EXAMINATION, APRIL 2019

Mircobiology and Clinical Lab Technology

Allied – HUMAN PATHOLOGY

(CBCS – 2017 onwards)

Time : 3 Hours Maximum : 60 Marks

Part A (10 × 1.5 = 15)

Answer **all** the questions.

1. Define : Pathology.

2. Give example for viral infections.

3. Apoptosis.

4. Cellular ageing.

5. Vascular changes of Inflammation – explain.

6. Acute inflammation.

7. Scar formation.

8. Extra cellular matrix of tissues.

9. Jaundice.

10. Hyperemia.

Part B (5 × 3 = 15)

Answer **all** questions, choosing either (a) or (b).

11. (a) Give an account on the types of fungal infections.

Or

(b) What are infectious disease? List out the causes of it.

12. (a) Write down the causes of cell injury.

Or

(b) Comment on the external factors of necrosis.

13. (a) Discuss in brief about the Cardinal Sign of inflammation.

Or

(b) Describe about the morphological effects of acute inflammation.

14. (a) What are the complications of wound healing?

Or

(b) Add notes on tissue repair mechanism.

15. (a) Explain about the pathogenesis of Tuberculosis disease.

Or

(b) Comment on the following :

(i) Haemostasis

(ii) Thrombosis.

Part C (3 × 10 = 30)

Answer any **three** questions.

16. Elaborate in detail about the pathogenesis viral infections.

17. Compare and contrast necrosis and apoptosis.

18. Write in detail about the chemical mediators of inflammation.

19. What are the factors that influence tissue repair?

20. Discuss the etidogy, pathogenesis, clinical sign and management of Asthma.

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