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Reg. No. :

Code No. : 10386 E Sub. Code : EEMI 11/
FEMI 11

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2025.

First Semester

Microbiology

Elective – I – BASIC AND CLINICAL
BIOCHEMISTRY

(For those who joined in July 2023 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Molecules having only one actual or potential sugar group are called _____.
- (a) oligosaccharides
 - (b) polysaccharides
 - (c) monosaccharides
 - (d) disaccharides

2. _____ are common saturated fatty acids except
- (a) Acetic acid (b) Butyric acid
 - (c) Palmitic acid (d) Linolenic acid
3. _____ is regarded as the 21st amino acid
- (a) Selenocysteine (b) Glycine
 - (c) Valine (d) Cysteine
4. _____ synthesised from histidine, is the mediator of allergic reactions.
- (a) Gamma amino butric acid
 - (b) Histamine
 - (c) Thyroxine
 - (d) Ornithine
5. When blood glucose value falls below 50 mg/dl, it is called _____.
- (a) Hypoglycemia (b) Hyperglycemia
 - (c) Hydriglycemia (d) Hybrid glycemia
6. The insulin is packed into granules in the _____.
- (a) Nucleus (b) Mitochondria
 - (c) Golgicomplex (d) Ribosome

7. Defects in the intestinal aminoacid transport systems are seen in _____ except.

- (a) Hartnup's disease
- (b) Sickle cell anaemia
- (c) Iminoglycinuria
- (d) Oasthouse syndrome

8. _____ is a very rare inherited disorder that prevents the body fully breaking down two protein building blocks (aminoacids) called tyrosine and phenylalaine.

- (a) Black urine disease
- (b) Phenylketonuria
- (c) Tyrosinemia
- (d) Aminoacidurias

9. The bilirubin is estimated by _____.

- (a) ELISA
- (b) Van den Bergn reaction
- (c) WIDAL
- (d) VDRL

10. Tests done for detailed assessment of Renal function is/are _____.

- (a) Clearance test
- (b) Urinary and plasma osmolality
- (c) Concentration and dilution test
- (d) All of these

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Discuss about the general properties of galactose.

Or

(b) Define LDL. What is the normal range for LDL cholesterol?

12. (a) Focus on the general properties of an aminoacid?

Or

(b) List out the functions of proteins.

13. (a) What are the symptoms and cause of hypoglycemia?

Or

(b) Summarise the different types of sphingolipidosis.

14. (a) Discuss about cause, enzyme and colour of urine in alkaptonuria.

Or

(b) Describe about the characteristics of tyrosinemia.

15. (a) Discuss about clinical evaluation of renal function.

Or

(b) Narrate the physiological significance of lactate dehydrogenase.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Write about general properties, structure and function of starch.

Or

(b) Discuss in detail about general properties structure and function of glucose molecule.

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17. (a) Describe in detail about functions and significance of aminoacids.

Or

(b) Explain about general structure and classification of a protein.

18. (a) What is diabetes and how do you control it?

Or

(b) What are the causes, symptoms and primary treatment for hyperlipidemia?

19. (a) Discuss in detail about aminoaciduriasis.

Or

(b) List and explain some disorders of aminoacid metabolism.

20. (a) Explain the most important and common test for intestinal functions.

Or

(b) Discuss about the clinical importance of alanine aminotransferase enzyme.

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