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Reg. No. : .....

Code No.: 20547 E

Sub. Code: CSMI 31

B.Sc (CBCS) DEGREE EXAMINATION, APRIL 2023.

Third Semester

Microbiology — Skill based core

MEDICAL LAB TECHNOLOGY

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. If sample is taken in EDTA tube, which one of the following biochemistry test results will affect?

(a) Glucose

(b) Urea

(c) Cholesterol

(d) Calcium

2. Recommended transport medium for stool specimen suspected to contain vibro cholera is —
- \_\_\_\_\_
- (a) Buffered glycerol saline medium  
 (b) Venktraman Ramakrishanan medium  
 (c) Nutrient broth  
 (d) Blood agar
3. New methlene blue Reagent is used for staining of which blood cells?
- (a) Reticulocytes                (b) Platelets  
 (c) WBC's                            (d) Heinz bodies
4. All of the following are function of blood except one?
- (a) Hormone                            (b) buffer system  
 (c) Oxygen Transport    (d) Nutrient absorption
5. Which is the following chemical test differentiate between staphylococcus and streptococcus?
- (a) Coagulase test            (b) Catalase test  
 (c) urase test                            (d) oxidase test
6. Widal test is done for the diagnosis of which bacteria?
- (a) Shigella sp                            (b) E.coli spc  
 (c) Salmonella                            (d) proteus sp

7. Which of the following is called 'bad' cholesterol?
- (a) Cholestrole                      (b) Triglyceride  
(c) HDL                                  (d) LDL
8. Which organelle is involved in lipid metabolism?
- (a) Rough endoplasmic reticulum  
(b) Smooth endoplasmic reticulum  
(c) Lysosoma  
(d) golgi apparatus
9. What is the interval for the semen analysis?
- (a) 2 to 6 weeks apart  
(b) 3 – 6 weeks apart  
(c) 2 to 4 weeks apart  
(d) 2 to 3 weeks apart
10. Normal urine primarily consist of \_\_\_\_\_
- (a) Water protein, and sodium  
(b) Water, urea and protein  
(c) Water, urea, and sodium chloride  
(d) Water, urea and bilirubin

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) State the role of medical lab technician in a clinical Laboratory?

Or

- (b) Report the safety regulation rules to be followed in a clinical laboratory?

12. (a) Write notes on eosionphil count?

Or

- (b) Describe about Haomatocrit?

13. (a) Discuss about c reactive protein text?

Or

- (b) What are the different types of blood grouping method?

14. (a) What is blood pressure? what can cause high blood prossuro?

Or

- (b) Report the normal lipid profile level?

15. (a) Discuss the clinical significance of bilirubin in biochemical analysis of serum.

Or

- (b) What are the two major types of serum proteins? And what their functions?

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)  
Each answer should not exceed 600 words.

16. (a) Describe in detail about Acid-base balance and electrolytes?

Or

- (b) Explain the preparation procedure for normal and molar solution?

17. (a) Write a detail notes on blood clotting time determination?

Or

- (b) Test the MCV and MCH value using appropriate test?

18. (a) Differentiate flocculation and precipitation with examples?

Or



(b) How will you collect serum specimen for serological tests? when will you consider the specimen unsuitable for serological testing?

19. (a) What is the clinical significance of determining the Transaminase level of serum? How are results correlated with other biochemical findings?

Or

(b) Discuss about low density "proportion estimation?"

20. (a) List the clinically important microscopic structure found in urinal and state their characteristic features?

Or

(b) List the physical examinations performed with semen specimens and state their clinical significance?

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