

M.Sc. 3rd Semester Examination, 2015

BIO-MED LAB. SCI AND MGM.

PAPER – BML-303

Full Marks : 40

Time : 2 hours

Answer Q. No. 1 and any three from the rest

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

1. Answer any ten of the following : 1 × 10

- (a) Write any one light source in U.V-spectrophotometer.**
- (b) Write the name of any two sensors for assessment of liver function.**

(Turn Over)

- (c) What do you mean by clearance test ?
- (d) What do you mean by primer dimer ?
- (e) Write the name of one sensor of pancreatic function test.
- (f) Write any one symptom of carbon monoxide toxicity.
- (g) Write one significance of SGOT assay.
- (h) Write the name of any one method of protein free plasma.
- (i) What is hyponatremia ?
- (j) Write the name of RNA and DNA virus of hepatitis.
- (k) What is the basic cause of Wilson's disease ?
- (l) Write an instance where serum alkaline phosphatase level is high.
- (m) What is end point titration ?

- (n) When arterial blood is collected for biochemical analysis ?
- (o) What is Kernictequs ?
2. (a) Write the principle of methanol toxicity assessment test.
- (b) Describe in brief about the qualitative testing of plasma for methanol toxicity assessment.
- (c) How will you determine the presence of arsenic and lead in serum ? $2 + 4 + 4$
3. (a) Write the principle of flame photometry.
- (b) Describe the working procedure of flame photometer in brief with pictorial presentation.
- (c) Write in brief about gastic function test. $2 + 4 + 4$
4. (a) Classify and describe different types of jaundice with its biochemical features.
- (b) How conjugation of bilirubin takes place ?

- (c) Describe one conjugated and one unconjugated hyperbilirubinaemia with its biochemical feature.

$$3+4+\left(1\frac{1}{2}+1\frac{1}{2}\right)$$

5. (a) Which anticoagulants are generally used for whole blood analysis ?

- (b) Which part of the blood is employed for determination of glucose-6-phosphate dehydrogenase and pyruvate kinase activity ?

- (c) Which tests are termed as emergency tests frequently used in the clinical laboratory ?

- (d) How do you perform pancreatic function test ?

$$2+1\frac{1}{2}+1\frac{1}{2}+5$$

6. (a) State the principle of GOD-POD method for blood glucose estimation.

- (b) What do you mean by reducing sugar and how they act in Benedict's test ?

- (c) State the procedure of blood urea determination by an enzymatic method.

$$2+(2+2)+4$$