



2019 Scheme

Q.P. Code: 116001

Reg. no.:

First Professional MBBS Degree Supplementary (SAY) Examinations May 2023

Biochemistry - Paper II

Time: 3 Hours

Total Marks: 100

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw table/diagrams/flow charts wherever necessary

Long Essays

(2x15=30)

1. 42-year-old obese lady presented with intolerance to fatty foods and pain in right abdominal region. On examination, her eyes were yellowish; stools had clay-colored appearance. Her investigations revealed the following.
Serum bilirubin -18 mg/dl
Direct bilirubin-17 mg/dl
AST-35 IU/L
ALT-40 IU/L
ALP-400 IU/L
 - a) What is the probable diagnosis
 - b) What is the normal serum Bilirubin level
 - c) Describe the catabolism of Heme.
 - d) What is the biochemical basis of clay colored stools
 - e) What will be the probable urinary findings in this patient

(1+1+8+1+4)

2. Structure, types and functions of immunoglobulins.

(5+5+5)

Short essays

(5x8=40)

3. Normal serum calcium and its regulation. **(1+7)**
4. What are the causes, biochemical findings and compensatory mechanisms in metabolic acidosis. **(4+1+2+1)**
5. Phase I detoxification reaction.
6. Absorption, transport and storage of iron.
7. What is the role of buffers in regulating blood pH.

Short answers

(5x4=20)

8. List the blot/blotting techniques and the applications of each type.
9. Keratin.
10. Outline the pathway of purine catabolism.
11. Micro arrays.
12. Role of oxidative stress in pathogenesis of cancer.

Give Precise Answers

(10x1=10)

13. Enzyme defect in Lesch – Nyhan syndrome.
14. Functions of iodine.
15. A patient presented with excretion of urine more than 20 litres per day. Specific gravity of his urine sample was 1.002. What is your diagnosis.
16. Degeneracy of genetic code.
17. What is the role of Telomerase enzyme.
18. Fastest moving plasma protein in electrophoresis is-----
19. Two copper containing enzymes.
20. Name four oncogenes.
21. One example for Prion disease.
22. Reference interval of serum sodium and potassium.

