

First Year M.B.B.S. Preliminary Theory Examination - Batch (21-22)

Biochemistry: Paper – I

Date : 16/11/2022

Time :3:00 Hours

Total Marks :100

Section – I

Q.1. Write justification on following (any eight)

2x8=16

1. Glycerol is used in enema.
2. Structure of proteoglycan is well suited for its function.
3. CK-MB is more specific marker than LDH and SGOT for diagnosis of myocardial infarction.
4. Alpha 1 anti-trypsin deficiency cause emphysema.
5. Collagen structure is affected in vitamin C deficiency.
6. In carcinoid tumour patient may suffer from deficiency of pellagra.
7. Glycine is optically inactive.
8. Eicosapentaenoic acid and docosahexanoic acids in food are good for health
9. UV radiation can cause Xeroderma pigmentosum (skin cancer).

Q.2 Write short note. (any four)

6x4=24

1. Biochemical explanation of lactose intolerance and its management.
2. DNA repair mechanisms.
3. Functions & clinical uses of Prostaglandin – Eicosonides.
4. Types of Structure of proteins. Write primary structure with its significance and examples.
5. Structure and functions of different Classes of immunoglobulins.

Section - II

Q 3 Write short notes. (any three)

4x3=12

1. Renal buffer mechanism with its type.
2. Post transcriptional modifications.
3. Folate trap.
4. Write types of enzyme inhibition. Explain any one inhibition with one example.

Q 4 Write short notes. (any three)

6x3=18

1. Regulation of Iron absorption.
2. Write type of haemoglobin derivatives & its related disorders & clinical features.
3. Write definition and significance of Glycemic index. Explain it with two examples of food item.
4. Functions of Albumin and its deficiency manifestations with mechanism.

Section - III

Q 5 Write detail on following. (any two)

5x2=10

1. Write types & cause of jaundice. Give blood and urine examination finding to differentiate its types.
2. Biochemical explanation of homeostasis changes in Calcium ,Parathyroid hormone & Vitamin D in chronic renal failure
3. Write characteristic of Genetic codon. Explain Wobbling phenomena in detail with its advantage.

Q 6 Write short notes (any four)

5x4=20

1. Molecular basis & diagnosis of Sickle cell anaemia.
2. Types of RNA & Explain one RNA type in detail.
3. Role & clinical significant of Telomerase & Telomere.
4. Cardiac Markers and its significance with time-line.
5. Acute phase proteins (with 3 examples).