

Department of Biochemistry
GMERS Medical College, Valsad
First Year M.B.B.S Pre University Examination
November- 2017
Biochemistry: Paper –II

Time: 2 Hrs 30 Min.

Marks: 50

SECTION - I

- 1. Short notes : (2 out of 3) 2 x 4=8**
(a) Vitamin D- Sources, functions and deficiency manifestations.
(b) Describe the metabolism of and inherited disorders of phenyl-alanine and Tyrosine.
(c) Enzyme inhibition with suitable examples.
- 2. Short notes: (4 out of 6) 4 x 3=12**
(a) Thalassemia
(b) DNA Replication.
(c) Kwashiorkor & Marasmus.
(d) Pellagra
(e) Polymerase chain reaction.
(f) Characteristic of Genetic Code.
- 3. Answer in few lines: (5 out of 6) 5 x 1=5**
(a) Name abnormal hemoglobin derivatives.
(b) What are Xenobiotics?
(c) What is central dogma of biological life?
(d) Name of Cardiac markers.
(e) Clinical significance of Dietary fibers.
(f) Enumerate nutritional classification of protein.

SECTION-II

- 4. Read the following case and answer the questions: 5 x 2=10**
A 54 year old male patient comes from rural area of Valsad to emergency department of GMERS Hospital, Valsad with severe chest pain and breathlessness. After blood investigation, on duty doctor suspect about acute myocardial infarction (AMI). Patient was admitted in ICU.
- (a) Which blood investigation should be done for AMI?
(b) Why LDH is not preferable investigation for diagnosis of AMI?
(c) Write different isoenzymes of CPK and LDH.
(d) Why HDL is considered good for health?
(e) What are the risk factors for Coronary Artery Disease?
- 5. Write justification : (5 out of 7) 5 x 2=10**
(a) Biotin is known as anti egg white injury factor.
(b) Telomerase is essential for dividing cell.
(c) Acidosis is associated with hyperkalemia.
(d) Haemoglobin is good blood buffer.
(e) Explain "Ammonia is toxic to brain".
(f) Hyperuricemia leads to gouty arthritis.
(g) In the presence of uncouplers, rising of body temperature occurs.
- 6. Answer in one or two lines : (5 out of 6) 5 x 1=5**
(a) Application of Southern Blotting Technique.
(b) Characteristic of zwitter ions.
(c) Enumerate effect and type of Mutation.
(d) Type of RNA
(e) Use of Electrophoresis.
(f) Role of 2, 3 BPG in oxygen transport by hemoglobin.