

**Government Medical Collage, Surat**  
**Preliminary Examination, November-2017 Biochemistry paper – II**  
**Duration : 3 hours** **Maximum Mark: 50**

**Section I**

**Q: 1 Short Notes ( 2 out of 3)** **(08 Marks)**

1. DNA Replication.
2. Explain Primary & Secondary structure of protein.
3. Degradation pathway of Heme (Billirubin synthesis). Write Types & Causes of Jaundice.

**Q: 2 Write in Brief ( 4 out of 6)** **(12 Marks)**

1. t-RNA
2. Explain "Ammonia is toxic to brain".
3. Explain competitive & suicide enzyme Inhibition with example.
4. Molecular basis of Sickle cell anaemia
5. Characteristic of Genetic codon.
6. Diagnostic importance of isoenzyme

**Q: 3 Write answer in few line (5 out of 6)** **(05 Marks)**

1. Function of Protein
2. Fate of Phenylalanine
3. Type of Mutation
4. Zwitter ions
5. Histidine & Arginine is called semi-essential amino acid.
6. Essential amino acid

**Section II**

**Q:4 Read Following Case & Answer the Question** **(10 Marks)**

56 year male patient came in emergency with alter-conciuosness & haemetemesis . He was suffering from chronic cirrhotic liver disease due to chronic alcoholism. On examination , it was found that he has edema on both lower limb, fluid collection in peritoneal cavity (Ascites), yellowish discolouration of skin & sclera (icterus). On blood investigation following was found.

Blood Glucose : 50 mg %	APTT – Test : 60 second	(Increase)
Serum Protein : 5.5 gm %	APTT – Control : 30 second	
Serm Albumin : 2.0 gm %	APTT – INR : 2	(Increase)
Serum Total Billirubin : 20 mg%		

**Physician advise to give Following treatment**

10% Dextrose with Thiamine (Vit-B1)	10% Albumin
Vitamin K	Oral Neomycin ( Antibiotic)

Questions:

1. Explain biochemical reason for edema & ascites in this patient.
2. Explain biochemical reason for yellowish discoloration of skin & sclera?
3. What is reason for increase APTT in this case ?
4. How Oral Neomycin (Anti-microbial, Antibiotic) reduce risk of cerebral encephalopathy?
5. What is role of Vitamin K in this case?

**Q:5 Write a justification in 2-3 lines (5 out of 7)** **(10 Marks)**

1. Row egg is use in treatment of metal poisoning.
2. Alpha-1 antitrypsin deficiency causes emphysema.
3. Pyridoxal phosphate (vitamin – B6 ) deficiency can cause pellagra
4. Glycine is optically inactive.
5. "CK-MB is more significant marker than LDH & S.GOT for diagnosis of Myocardial infarction" explain it.
6. "Vitamin C deficiency cause Scurvey" Explain it.

**Q:6 Write answer in few line (5 out of 6)** **(05 Marks)**

1. Definition & example of Co-Enzyme
2. Definition & factor causes denaturation of Protein.
3. Protein Energy Malnutrition
4. Write any one function of Fat soluble vitamins.
5. Bile salts are detected in the urine, in case of obstructed jaundice
6. Polymerase Chain Reaction