



JI-M20176 Seat No. _____
First Year M. B. B. S. Examination
July - 2019
Biochemistry : Paper - II
(New Course)

Time : 3 Hours]

[Total Marks : 50

SECTION-I

- 1 State true or false with justifications : (any six) **1×6=6**
- (a) Urea cycle helps in synthesis of semi essential amino acids.
 - (b) Bile salts are necessary for absorption of lipids from gut.
 - (c) Allopurinol is advised in Gout.
 - (d) Ethanol is antidote in methanol poisoning.
 - (e) Replication of DNA is continuous in both strands.
 - (f) Protein of rice is complete and of high quality.
 - (g) Lactate dehydrogenase regenerates NAD^+ from NADH.
- 2 (a) Read the case report and answer the following **1×5=5**
questions.
- A middle aged alcoholic person complained of fatigue. There was vague abdominal pain. On examination there was enlargement of liver. Laboratory results obtained were as follows: Serum AST-120U/L,(Normal-8-20U/L), Sr.ALT-80U/L (Normal-13=35 U/L),Sr.ALP 68U/L, (Normal-40-125U/L), GGT-170U/L(Normal -10-55U/L), Sr. Bilirubin 10mg%(Normal 0.2-1mg%),Sr.Glucose 60mg%,(Normal-70-110mg%), Sr.Uric acid 8 mg% (Normal-3.5-7mg%). CBC and urinary analysis were normal. The case was diagnosed as Alcoholic liver disorder.
- (a) Write first two reactions of alcohol metabolism in liver.
 - (b) Why there is hypoglycaemia in this patient ?
 - (c) What does increased GGT indicate in this patient?
 - (d) Why chronic alcoholism causes fatty liver?
 - (e) Why gouty attack may precipitate after consumption of alcohol ?

- (b) Discuss the following : **3+2=5**
(a) Phenylketonuria.
(b) DNA finger printing.
- 3** Write short notes : (any three) **3×3=9**
(a) Lac operon.
(b) DNA damage and repair.
(c) Purine Salvage pathway.
(d) Galactosemia.
- 4** Give comments with justifications : (any six) **1×6=6**
(a) End product of glycolysis in RBC is always lactate.
(b) In polymerase chain reaction technique, DNA polymerase enzyme from bacteria *thermos aquaticus* (Taq polymerase) is preferred. .
(c) Secondary gout occurs in leukaemia after chemotherapy.
(d) cAMP is known as second messenger of hormonal action.
(e) Tryptophan malabsorption causes pellagra. ,
(f) High HDL level in blood is good for health.
(g) HMP shunt is necessary for lipid synthesis.
- 5** Discuss the following : (any two) **5×2=10**
(a) Standard liver function tests.
(b) Genetic code.
(c) Gluconeogenesis
- 6** Write short notes : (any three) **3×3=9**
(a) Tumour markers.
(b) Protein energy malnutrition. .
(c) Fates of Acetyl CoA.
(d) Free radicals and antioxidants. '
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