


DZ-4006
First Year M. B. B. S. Examination

June / July - 2016

Biochemistry : Paper - II

 Time : $2\frac{1}{2}$ Hours]

[Total Marks : 40

Instructions :

(I)

| | | |
|---|------------------------------|---------------------|
| 4/4 10/10 10/10 10/10 10/10 10/10 Fill up strictly the details of signs on your answer book. | | Seat No.: |
| Name of the Examination : First Year M. B. B. S. | | |
| Name of the Subject : BIOCHEMISTRY: PAPER - 2 | | |
| Subject Code No. : 4 0 0 6 | Section No. (1, 2,) Nil | Student's Signature |

- 1 Short Notes : (2 out of 3) 8
 - (1) Molecular basis of Sickle cell disease.
 - (2) Urea cycle
 - (3) Replication of DNA.
- 2 Write in Brief : (4 out of 6) 12
 - (1) Characteristic of Genetic code.
 - (2) Hyperuricemia and gout.
 - (3) Factors affecting enzyme activity.
 - (4) Post translation modification
 - (5) Biochemical basis of scurvy
 - (6) Polymerase chain reaction.
- 3 Read Following Case & Answer the Question : 10

A 65 year old male who was unwell for past few days came for consultation. He had developed loss of appetite, weakness malaise and nausea he also reported that his eyes were dark yellow from last two weeks his urine is turned dark yellow but colour of the stool is pale. His blood and urine reports were as follows

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1

[Contd...

Blood chemistry

Total bilirubin 10.2 mg%

Serum AST 28 IU/L

Indirect bilirubin 1.5 mg%

Serum ALT 32 IU/L

Direct bilirubin 8.7 mg%

Serum ALP 220 U/l

APTT — Test : 60 sec

APTT — Control : 30 sec

Urine examination

Bile pigment : Present

Urobilinogen : Absent

Bile salts : Absent

- (1) What is the difference between direct and indirect bilirubin?
- (2) Write about different types of jaundice and their causes?
- (3) What are enzyme markers for different types of jaundice?
- (4) Give biochemical explanation for abnormal APTT level.
- (5) Why bile salts are present in urine in this case

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

- (1) Vitamin B12 and folic acid deficiency can cause hyperhomocysteinemia
- (2) Blood Buffers act quickly but not permanently.
- (3) Phenobarbitone can precipitate acute intermittent porphyria.
- (4) Zwitterion has least buffering and solubility.
- (5) Glutathione and NADPH play important role for maintain RBC membrane
- (6) Biotin is known as anti-egg white injury factor
- (7) Glycine does not exhibit optical isomerism