


**ER-4006**
**First Year M. B. B. S. Examination**


December - 2016

**Biochemistry : Paper - II**

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

[Total Marks : 50

**Instruction :**

Fill up strictly the details of  signs on your answer book. Name of the Examination : <b>FIRST YEAR M. B. B. S.</b>		Seat No. : <table border="1"> <tr> <td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>						
Name of the Subject : <b>BIOCHEMISTRY : PAPER - 2</b>		Student's Signature <div style="border: 1px solid black; height: 40px; width: 100%;"></div>						
Subject Code No. : <b>4 0 0 6</b>	Section No. (1, 2, ...) : <b>1&amp;2</b>							

**SECTION - I**

- 1 Short notes : (2 out of 3) 8
  - (a) Describe the process of heme degradation to bile pigment.
  - (b) Describe the metabolism of tyrosine along with important compounds synthesized from tyrosine.
  - (c) Describe the factors affecting on enzyme activity.
- 2 Short notes : (4 out of 6) 12
  - (a) Recombinant DNA technology.
  - (b) Tumour markers
  - (c) Beriberi.
  - (d) Diagnostic applications of enzymes
  - (e) Post translational modifications
  - (f) Functions and disorders of vitamin C.
- 3 Answer in one or two lines : (5 out of 6) 5
  - (a) Functions of niacin vitamin.
  - (b) Biologically important peptide examples (any four).
  - (c) Name the uses of PCR.
  - (d) What is enzyme pattern in myocardial infarction ?
  - (e) What is the function of restriction endonuclease ?
  - (f) What are plasma proteins ?

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[Contd...

## SECTION - II

- 4 Read the following case and answers the questions : 10

A 40 year old man came to O.P.D with the complaint of severe interphalangeal joint pain of his right hand since morning. He gave history of consumption of much food and alcohol in the previous night. Laboratory investigation of Biochemical parameters were normal except serum uric acid level 10 mg% (normal 3-7mg %). The cause was diagnosed as "Acute Gout" he was given conventional treatment with Allopurinol.

- (1) What is Gout ?
- (2) What are the causes of Primary gout?
- (3) What is the precursor substance of uric acid?
- (4) What is basis of treating patient with allopurinol ?
- (5) How will you correlate between alcohol consumption and acute gouty attack ?

- 5 Write justification : (5 out of 7) 10

- (a) Replication of DNA is semiconservative.
- (b) Protein malnutrition causes oedema.
- (c) Enzyme inhibition property is used for treatment of diseases.
- (d) Methotrexate is used for the treatment of cancer.
- (e) Zwitter ions doesn't move under electric field.
- (f) Excess of ammonia is toxic to the brain.
- (g) Folic acid supplements are helpful in a person with high homocysteine level.

- 6 Answer in one or two lines : (5 out of 6) 5

- (a) Applications of PCR.
- (b) What is acute phase protein? Give two examples.
- (c) Active form of vitamin D, gives its daily requirement for adult.
- (d) Define detoxification.
- (e) Inhibitors of protein synthesis (any two).
- (f) Which compounds synthesized from Tryptophan amino acid ?