



R-3705

First Year M. B. B. S. Examination

July - 2018

Biochemistry : Paper - II

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

[Total Marks : 50

Instruction :

Fillup strictly the details of signs on your answer book.
 Name of the Examination : **FIRST YEAR M. B. B. S.**
 Name of the Subject : **BIOCHEMISTRY : PAPER - II**
 Subject Code No. : **3 7 0 5** Section No. (1, 2,) : **1&2**

Seat No. :

Student's Signature

SECTION - I

- 1 Short notes : (2 out of 3) 2×4=8
 - (a) Describe in detail reaction of transamination, deamination and urea cycle. Add note on the effect of hyperammonemia.
 - (b) Write the process of replication with inhibitor.
 - (c) Describe different types of enzyme inhibition with examples.
- 2 Short notes : (4 out of 6) 4×3=12
 - (a) Gene therapy
 - (b) Biochemical basis of scurvy
 - (c) PCR (polymerase chain reaction)
 - (d) Mention important products formed from tyrosine and write its inborn disorders
 - (e) Base -excision repair
 - (f) One carbon metabolism.
- 3 Answer in one or two line : (5 out of 6) 5×1=5
 - (a) Folate trap.
 - (b) Write MI diagnostic enzymes name.
 - (c) What is Chargaff's rule ?
 - (d) Plasmid.
 - (e) What is recombinant DNA ?
 - (f) Acute base protein.

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[Contd.....



SECTION - II

- 4 Read the following case and answer the questions : $5 \times 2 = 10$

A middle aged executive complained of severe joint pain especially in the big toes in the early morning hours. His joints were swollen. The consultant decided to get his uric acid level in the serum to be estimated which was 11.0 mg/dl. The case was diagnosed as gout and the doctor advised the patients to consume a lot of fluids, avoid alcohol and nonvegetarian diet. He was also prescribed to take allopurinol.

- What is uric acid? What is normal range in serum ?
- What is the reason behind treating this patient with allopurinol ?
- Differentiate primary and secondary gout ?
- Why consultant advised the patient not to take alcohol ?
- What do you mean by tophi ?

- 5 Write justification : (5 out of 7) $5 \times 2 = 10$

- mt-DNA only inherited from mother.
- Vitamin C is essential for the formation of cross links in the collagen.
- Most human cancers emerge from oncofetal gene.
- Diarrhea cause normal anion gap acidosis.
- Telomerase is essential for dividing cell.
- Glutathione & NADPH play important role for maintain RBC membrane.
- Glycine is optically inactive.

- 6 Answer in one or two line : (5 out of 6) $5 \times 1 = 5$

- Prion disease.
- Define gene library.
- Write name of porphyrias.
- Characteristic of pellagra.
- Application of southern blotting.
- Molecular defect in sickle cell anemia.