

0818E304

**First Year MBBS Examination
I MBBS Biochemistry Paper 2**

Date: 03-08-2018

Time: 3 hours

Max Marks: 50

Instructions:

1. Answer to the points.
2. Figure to the right indicates marks.
3. Use separate answer books for each section.
4. Draw diagrams wherever necessary.
5. Write legibly.

Section 1

1. Write short notes on the following

a) Gout and LeschNyhan (10)

syndrome(A. 548)(C. 394)

b) Night blindness and role of vitamin A

c) Phenylketonuria(A. 292) (C. 351)

2. Write Short notes of (any three) (9)

a) Point mutations

b) Structure and functions of t RNA(A. 578)(C. 81)

c) Western blotting technique

d) Applications of Recombinant DNA technology(A. 600) (C. 579)

e) Inhibitors of protein synthesis(A. 584) (C.558)

3. Discuss Any TWO (6)

a) Protein energy malnutrition (PEM) (A. 516) (C. 516)

b) Role of fibre in the body(A. 514) (C. 508)

c) Biochemical changes in well fed state

Section 2

4. Write Short notes on (any two) (10)

a) Biochemical functions of copper and Zinc

b) Explain how ammonia is disposed via glutamate, glutamine and urea

c) Biologically important peptides

5. Write Short notes on (any two) (9)

a) Biochemical role of vitamin B12(A. 491) (C. 153)

b) Functions of biologically important nucleotides(A.541)

c) Salvage pathway of purines(A. 546) (C. 391)

d) Antioxidant vitamins(A. 429) (C. 659)

e) Degradation of pyrimidines(A. 551) (C. 400)

6. Case report: A three year old child was brought to the paediatric OPD with complaints of slow growth and severe pain in bones. He was pale, had bow legs, knock knees, pigeon chest and swelling of the costochondrial junctions. His biochemical investigations showed Serum calcium 7.6 mgs% (Normal 9-11 mg%) Serum Inorg.Phos. 2.6 mgs% (normal 4-6 mgs%) and serum Alkaline Phosphate 720 U/L(normal 26-91 U/L). Answer the following questions (any six): (6)

1. What is the likely diagnosis?
2. Which other biochemical test will help to ascertain the diagnosis?
3. What is normal Ca:P ratio?
4. Describe the calcium regulation.

5. Give two factors inhibiting calcium absorption
6. Suggest measures to correct the above disorder.
7. Write any two causes of hypocalcemia
8. Write any two causes of increased serum alkaline phosphate level.

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