Date: 11-01-2019
0118E456
First Year MBBS Examination
I MBBS Biochemistry Paper 2
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) Alcohol and acute gouty arthritis (10)
b) Rickets and role of vitamin D(A. 459)(C.127,408)
c) Maple syrup urine disease(A. 282) (C.365)

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

a) Watson crick model of DNA
b) Salvage pathway of purine synthesis(A. 546) (C.391)
c) Polymerase chain reaction(A. 612) (C.594)
d) Lac operon concept(A. 596) (C.567)
e) Post transitional modifications

3. Discuss Any TWO (6)

a) Basal metabolic rate (BMR)(A. 512) (C.504)
b) Dietary fiber(A. 514)(C. 508)
c) Nitrogen balance

Section 2

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

a) Biochemical functions of selenium (A. 504) (C.421)
b) Transamination(A. 256) (C. 332)
c) Secondary structure of proteins(A. 38)(C. 56)

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

a) Biochemical role of vitamin C
b) Regulation of purine synthesis

c) Sources of carbon and nitrogen atoms in purine ring

d) Hem poetic vitamins

e) OroticAciduria(A. 551) (C.400)

6. Case report: One evening, a 40 year old male a businessman enjoyed a party in which he sonsumed meat and alcohol. The next morning he woke up with excruciating (6)

pain in great toe. He was admitted in the hospital, on examination, he had fever his great toe was swollen, red and too hot to touch and was tender and stiff. Lymph nodes were normal not tender. The laboratory data was:Blood glucose:130 mg/dl, Blood urea:38mg/dl Serum Creatinine:1 mg/dl, Serum uric acid: 10 mg/dl, Urine pH:6.2. Answer the following questions (any six).

1) What is the most probable diagnosis?

2) Which part of the case history & laboratory data helped you to reach

the diagnosis?
3) What is the origin and fate of uric acid?
4) What are the causes of primary and secondary Hyperurecernia?
5) What is the cause of gouty arthritis? Explain the pathogenesis.
6) Which type of food will precipitate an attack of gout?
7) What is the short term and long term treatment of gout?
8) What is the biochemical basis of such treatment policy?