10 JUL 2019

# 1st Year M.B.B.S Examination
## June/July 2019
## Biochemistry Paper-2

CODE-9667

**Time: 2½ hours**
**Max. Marks: 50**

**Seat No: .....**

**Instructions:**

1. Use separate answer book for each section.
2. Handwriting should be legible.
3. Answer should be to the point & draw diagrams/flow chart wherever necessary.
4. Don't attempt extra questions.

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## SECTION-I

**Q-1.Write your comments with justification on any five** **5x2=10**

1. G6PD deficiency can lead to hemolysis
2. Carbohydrates will induce sleep, while protein-rich foods will cause alertness
3. Selenium and Vitamin E are important anti-oxidants
4. Muscle glycogen cannot contribute to blood glucose
5. Curd is an effective treatment for diarrhea due to lactose intolerance
6. Carnitine deficiency in preterm infants leads to episodes of hypoglycemia

**Q-2. Describe any one** **1x 6=6**

1. Urea cycle and its regulation.
2. Diabetes Mellitus: types, clinical features and complications.

**Q-3.write a short note on any three** **3x3=9**

1. Bilirubin metabolism.
2. Special metabolic products from glycine
3. Risk factors for atherosclerosis.
4. Gout : Types and management

**PTO**

## SECTION-II

**Q-4. Write your comments with justification on any five** **2x5=10**

1. Lingual lipase is important for lipid digestion in neonates
2. Hyperuricemia is seen in Type-1 Glycogen storage disease
3. In Alkaptonuria urine turns black when exposed to air
4. Glutamine plays an important role in transporting ammonia from brain & intestine to liver
5. HDL cholesterol is called good cholesterol
6. Pyridoxine deficiency can lead to anemia

**Q-5. Write short note on any three** **3x3=9**

1. Phase two reactions of Detoxification
2. Obesity
3. Porphyrias
4. Fate of pyruvate

**Q-6. Read the case report and answer the questions** **6**

A 1-year-old girl child was brought to the hospital emergency ward with the complaints of convulsions, tremors, agitation and hyperactivity. The mother reported that the baby is not achieving the normal milestones for a baby of her age and there is an unusual odor to her urine. On systemic examination she was found to have some muscle hypotonia, microcephaly and hypopigmentation of skin and hair. The urine collected was found to have a "mousy" odor and Ferric Chloride test was positive.

**Questions:**

1. Write the probable diagnosis with justification based upon the history **2**
2. Write the biochemical abnormalities in this case **1**
3. Describe the biochemical basis of the hypopigmented skin and hair **1**
4. Write dietary management of this patient. **2**