



**RUHS FIRST YEAR MBBS EXAMINATION**

**BIOCHEMISTRY- PAPER - I**

**Jan/Feb 2015 TIME: 3 HOURS TOTAL MARKS: 50**

**INSTRUCTIONS:**

1. Que. No. 1 and 5 in section A and B are compulsory. Attempt ANY TWO questions from rest of the questions in each section.
2. Use separate answer sheet for each section.

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**Section A**

Q1. Discuss the alternative pathways for glucose oxidation and their significance. 10

Q2. Describe in details

- a) Role of physiological uncoupling proteins in health and disease.
- b) Ketogenesis and its regulation

Q3.

- a) How urea is synthesized in body? Discuss its inherited metabolic defects
- b) Describe catabolism of purines and discuss associated metabolic disorders.

Q4. Discuss briefly

- a) Carnitine shuttle
- b) PEM
- c) Competitive inhibition
- d) Homocystinuria

**SECTION B**

Q5. Describe the chemistry, sources & daily requirements, functions and deficiency disorders of vitamin A.

Q6. a) Discuss role of different hormones in the





regulation of blood glucose

b) Describe biochemical and clinical features in different types of porphyrias

Q7. a) Describe ETC and its inhibitors

b) Discuss absorption and metabolism of iron

Q8. Write short notes on

- a) Folate antagonists
- b) Balanced diet
- c) Fluorosis
- d) Antioxidants

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