

**QP Code:103103**

**Reg.No.:.....**

**PG Degree Supplementary Examinations in Biochemistry (MD)  
October 2018**

**Paper III – Nutrition and Metabolism**

**Time: 3 hrs**

**Max marks:100**

- *Answer all questions*
- *Draw diagrams wherever necessary*

**Essay: (20)**

1. Describe the various ways by which ammonia is formed from various metabolites and explain how it is detoxified in the body.

**Short essays: (8x10=80)**

2. Explain irreversible steps of glycolysis with the enzymes involved. Describe energetics under aerobic and anaerobic conditions
3. Define and classify porphyrias. Add a note on acute intermittent porphyria
4. Inhibitors of oxidative phosphorylation
5. Gluconeogenesis in starvation and well fed state
6. Explain the biochemical basis of Lesch-Nyhan syndrome and Von Gierke's disease
7. Importance of SDA of food
8. Explain why folate and vitamin B<sub>12</sub> deficiency leads to megaloblastic anaemia.
9. Outline the role of vitamin A in the visual cycle.

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