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**Rajiv Gandhi University of Health Sciences, Karnataka**  
First Phase MBBS Degree Examination – June 2013

**Time: Three Hours**

**Max. Marks: 100 Marks**

**BIOCHEMISTRY-PAPER I**  
**(REVISED SCHEME)**

**QP Code: 1055**

Your answers should be specific to the questions asked

Draw neat labeled diagrams wherever necessary

**LONG ESSAYS**

**2 x 9 = 18 Marks**

1. Enumerate the reactions of purine degradation and add a note on Gout
2. Describe the process of DNA replication

**SHORT ESSAYS**

**10 x 5 = 50 Marks**

3. Components of ETC
4. Uronic acid pathway
5. Fatty Liver
6. Intestinal absorption and transport of iron
7. Digestion and absorption of proteins.
8. Porphyrrias
9. Explain the amphibolic role of TCA cycle
10. Metabolic changes during starvation
11. Write Four detoxification mechanisms with One example for each.
12. Write the principle of Vanden Bergh's test and its application.

**SHORT ANSWERS**

**16 x 2 = 32 Marks**

13. Define the term active and passive transport.
14. Write Four structural features of cell membrane
15. Write short note on dietary fibre
16. Write short note on rickets
17. Define isoelectric pH and state properties of a protein at its isoelectric pH.
18. What are lipotropic factors? Name them
19. Write short note on carnitine
20. Name the key gluconeogenic enzymes
21. Give the composition of hyaluronic acid.
22. Define Km value. What is its significance?
23. Write short on albinism
24. Describe the role of bile salts in lipid metabolism
25. Name any Two specialized products derived from glycine
26. Name the deficient enzyme in a) Hyperargininemia b) Phenyl ketonuria
27. Calculate energy requirement per day of a student of 20 years.
28. Write short note on protein calorie malnutrition.

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