MANIPAL UNIVERSITY

FIRST YEAR BPT/BOT/B.Sc. RT/B.Sc. CVT/ B.Sc. RRT & DT
DEGREE EXAMINATION – JUNE 2017

SUBJECT: BIOCHEMISTRY
(NR/2015 & 2011 SCHEME/2015 & 2010 SCHEME/2015 SCHEME/BDT 103)

Tuesday, June 20, 2017

Time: 10.00-11.30 Hours   Max. Marks: 40

✍ **Answer ALL the questions.**

✍ **Draw diagrams and flow charts wherever appropriate.**

1. Explain anaerobic glycolysis under the following headings:

1A. Site and subcellular site

1B. Reactions

(1+7 = 8 marks)

2. Write the steps of urea cycle in detail.

(6 marks)

3. **Write short notes on:**

3A. Homopolysaccharides

3B. Classification of compound lipids with one example each

3C. Structure of DNA

3D. Basal metabolic rate

(4 marks × 4 = 16 marks)

4. **Answer the following:**

4A. Define the term 'buffer'. Write the Henderson-Hasselbalch equation.

4B. Write the normal serum calcium level. Name the hormones regulating it.

4C. Mention four biologically important compounds derived from glycine.

4D. Write the coenzyme form of thiamine and one reaction where it is involved.

4E. Give the clinical importance of creatine kinase and alkaline phosphatase.

(2 marks × 5 = 10 marks)

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