

**Second B.Pharm (Ayurveda) Degree Supplementary Examinations
April 2019**

Biochemistry & Pathophysiology

Time: 3 hrs

Max marks: 100

- Answer all questions
- Draw diagrams wherever necessary
- Write **SECTION A** and **SECTION B** in separate Answer books (32 Pages). Do not mix up questions from Section A and Section B.

Q.P. Code 206008

Section A- Biochemistry

75

Essays

(2x10=20)

1. What are isoenzymes. Describe in detail about the clinical significance of various isoenzymes.
2. Describe in detail pentose phosphate pathway.

Short notes

(5x5=25)

3. Regulation of gene expression
4. Glycogenesis
5. Enzyme classification
6. Inhibitors of respiratory chain and oxidative phosphorylation
7. Active transport mechanism

Answer briefly

(10x3=30)

8. How many ATPs will be generated when one molecule of glucose undergoes :
 - Glycolysis • TCA • Complete oxidation
9. What are symptoms observed in hyperbilirubinemia
10. Mention the organ and intracellular location of the following processes:
 - Glycolysis • Urea cycle • Beta oxidation
11. With examples, define essential fatty acids.
12. Write the coenzyme forms of vitamin B₁, vitamin B₆ and vitamin B₁₂.
13. Why nucleus is termed as “brain of the cell” and mitochondria as the “power house”.
14. What is the role of DNA polymerase, DNA ligase and Topoisomerase in the DNA replication process.
15. Enlist various high energy compounds found in the biological system.
16. What is point mutation
17. Why TCA cycle is known to have an amphibolic role

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Section B- Pathophysiology

25

Answer briefly

(5x5=25)

1. Process of inflammation
2. Hypertension
3. Anemia
4. Gout
5. Depression
