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B.D.S. Ist Professional **HB Dental College Hospital & Research Centre**  
47, Knowledge Park-III, Greater Noida

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**B.D.S. Examination, April-2004**

**PAPER - II**

**General Human Physiology & Biochemistry**

**(BDS-02)**

*Time : Three Hours ]*

*[ Maximum Marks : 25*

**Note : Attempt all questions. Illustrate your answers with suitable diagrams.**

**Section - A**

**(General Human Physiology)**

1. Discuss the stages of Erythropoiesis. 4
2. Describe phases of gastric juice secretion. 4
3. Discuss the different stages of circulatory shock. 5

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2. Describe the regulation of cardiac output. 5

3. Describe chemoregulation of respiration. 5

4. (a) Draw a diagram of pyramidal tract. 3

(b) Draw a diagram of organ of Corti. 2

5. Describe the functions of insulin. 5

Section B

(Biochemistry)

1. Describe the following :

(i) Beta oxidation of fatty acids 3

(ii) Glycogen storage diseases. 2

2. Write short notes on the following :

(i) Metabolic role of calcium  $2\frac{1}{2}$

(ii) Fluorine or Vitamin D.  $2\frac{1}{2}$

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(3)

25

3. State about the following :

(i) Diagnostic significance of isoenzymes  $2\frac{1}{2}$

(ii) Protein-calorie malnutrition.  $2\frac{1}{2}$

4. Write short notes on any two :  $2\frac{1}{2}$  each

(i) Aromatic amino acids

(ii) Electron transport chain

(iii) Liver function test.

5. Describe the following :

(i) Isoelectric pH  $2\frac{1}{2}$

(ii) Nucleotides and nucleosides.  $2\frac{1}{2}$

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**B. D. S. Examination, Sept. 2004**

**Paper II**

**General Human Physiology & Biochemistry**

**(BDS-02)**

*Time : Three Hours*      *[Maximum Marks : 25+25]*

*Note : Attempt all questions. Illustrate your answers with suitable diagrams.*

**Section A**

**(General Human Physiology)**

1. (a) Describe the functions of endoplasmic reticulum. 3
- (b) Draw a flow chart of intrinsic mechanism of clotting. 2

5. Define Cardiac Output. What are the factors which affect cardiac output? <sup>5</sup>

2 5

Write short notes on the following :

3

6. Differentiate between :

(a) Myopia and Hypermetropia

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(b) Myelinated and unmyelinated nerve fibre.

- (i) Therapeutic uses of Vit B<sub>12</sub>.
- (ii) Essential fatty acids.
- (iii) Fluoride.

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**Section - B**  
**(Bio-Chemistry)**

1. Define isozymes giving examples. Describe relevance of isozymes in the diagnosis of diseases. 5

2. Describe Hexose-monophosphate shunt and its metabolic significances. 5

3. Enumerate the biochemical changes in the blood and urine of a patient suffering with jaundice. 3

4. Discuss in brief :

(a) Inhibitors of protein biosynthesis.

2

(b) Role of calcium in metabolism.

2

(c) Van Gierck's disease.

2