

**PHB Education Sample Paper-1**  
**D. Pharm IInd Year,**  
**FIRST SESSIONAL EXAMINATION 2024-25**  
**(Biochemistry & Clinical Pathology)**

**Time: 02Hrs**

**Maximum Marks: 40**

**Instructions:**

1. Write the Roll no. on your question paper.
2. Candidate should ensure that the question paper supplied to them is complete in all respects. Complain in this regards, if any, should be made to the invigilatory staff on the duty in the exam centre within 15 minutes of Commencement of the exam. No complaint shall be entertained thereafter.

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**Attempt all the questions:**

**Section: (A)**

**Multiple choice Questions:**

**[5]**

**1.** The joint pain in the body is due to excess of:

- |               |                 |
|---------------|-----------------|
| (a) Uric Acid | (b) Lactic acid |
| (c) Insulin   | (d) Calcium     |

**2.** Starch is the polymer of.....

- |             |               |
|-------------|---------------|
| (a) Glucose | (b) Fructose  |
| (c) Sucrose | (d) Cellulose |

**3.** Biuret test is not give by:

- |                  |                 |
|------------------|-----------------|
| (a) Urea         | (b) Protein     |
| (c) Carbohydrate | (d) Polypeptide |

**4.** The main function of protein is.....

- |                       |                      |
|-----------------------|----------------------|
| (a) To provide energy | (b) Cell formation   |
| (c) Body growth       | (d) All of the above |

**5.** Human blood contains maximum sugar .....

- |               |              |
|---------------|--------------|
| (a) Sucrose   | (b) Fructose |
| (c) D-glucose | (d) Lactose  |

**Fill in the blanks:**

**[5]**

1. ....is also called laevulose.
2. The chemistry of living matter is called.....
3. ....scientist used lipid word first of all.
4. Protein solution on heating with ninhydrin reagent gives..... Colour.
5. The group in conjugated proteins joined with simple protein is called.....

**Sections: (B)**

**Short answer type Question: (Attempt any five)**

**[5×3=15]**

1. Distinguish between oil and fats.
2. Describe the diseases caused due to deficiency of protein in the diet.
3. Write the structural formula of the following:  
a) Glucose b) Galactose
4. Define the following:  
a) Mutarotation b) Starch c) cellulose
5. Differentiate between fibrous protein and globular proteins.
6. Describe the classification and function of lipoprotein.

**Sections: (C)**

**Long answer type Questions: (Attempt any three)**

**[3×5=15]**

1. Define lipid. Write their classification with example.
2. What is amino acid? What is their importance in human life?
3. What do you understand by biochemistry? Describe the scope of biochemistry.
4. Define lipid? Write their classification with example.

**PHB Education Sample Paper-2**  
**D. Pharm IInd Year,**  
**FIRST SESSIONAL EXAMINATION 2024-25**  
**(Biochemistry & Clinical Pathology)**

**Time: 02Hrs**

**Maximum Marks: 40**

**Instructions:**

1. Write the Roll no. on your question paper.
2. Candidate should ensure that the question paper supplied to them is complete in all respects. Complain in this regards, if any, should be made to the invigilatory staff on the duty in the exam centre within 15 minutes of Commencement of the exam. No complaint shall be entertained thereafter.

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**Attempt all the questions:**

**Section: (A)**

**Multiple choice Questions:**

**[5]**

**1.** The aldose and ketose is differentiated by the following reagent:

- |                           |                      |
|---------------------------|----------------------|
| (a) Br <sub>2</sub> Water | (b) Fehling solution |
| (c) Tollen's reagent      | (d) All of the above |

**2.** The protein present in hair.

- |             |                   |
|-------------|-------------------|
| (a) Keratin | (b) Elastin       |
| (c) Myosin  | (d) Tropocollagen |

**3.** Biuret test is not give by:

- |                  |                 |
|------------------|-----------------|
| (a) Urea         | (b) Protein     |
| (c) Carbohydrate | (d) Polypeptide |

**4.** The main function of protein is.....

- |                       |                      |
|-----------------------|----------------------|
| (a) To provide energy | (b) Cell formation   |
| (c) Body growth       | (d) All of the above |

**5.** Human blood contains maximum sugar .....

- |               |              |
|---------------|--------------|
| (a) Sucrose   | (b) Fructose |
| (c) D-glucose | (d) Lactose  |

**Fill in the blanks:**

**[5]**

1. ....is also called laevulose.
2. Sucrose is .....sugar.
3. The molecular formula of cholesterol is.....
4. The general formula of saturated higher fatty acid is .....
5. The group in conjugated proteins joined with simple protein is called.....

**Sections: (B)**

**Short answer type Question: (Attempt any five)**

**[5×3=15]**

1. Explain saponification of oil and fats with equation.
2. Describe the diseases caused due to deficiency of protein in the diet.
3. Describe the biological functions of carbohydrates.
4. Differentiate between fibrous protein and globular proteins.
5. Describe the classification and function of lipoprotein.
6. Write the structure, physical and chemical properties of glucose.

**Sections: (C)**

**Long answer type Questions: (Attempt any three)**

**[3×5=15]**

1. Give the classification of proteins. Write their qualitative tests?
2. Give the structure of cholesterol. Explain their nutritional importance.
3. Define a cell? Describe the bio-chemical composition of cell.
4. Define lipid? Write their classification with example.