ODISHA STATE BOARD OF PHARMACY   02/02/2023

D. Pharm Part - I   **E. R. 1991**   **2022(I)**

DO NOT WRITE ANYTHING ON YOUR QUESTION PAPER EXCEPT YOUR ROLL NO. QUESTION PAPER CONTAINING ANYTHING WOULD BE TREATED AS MALPRACTICE

Subject: BIO-CHEMISTRY & CLINICAL PATHOLOGY (Theory)

Full Mark -80   **Time -3 hrs**

(Answer any five questions including question No. 1)

1.   A)   **Define the following terms:**   (10X1)
     a)   Conjugated Proteins   b) Kwashiorkor   c)Isoenzymes   d)Hypernatremia
     e)   Molisch's test   f) Osteomalacia   g)lymphocytosis   h) Oligopeptide
     i)   Agranulocytosis   j) Saponification value
     B)   **Define & differentiate the following term.**   (5X2)
     i)   Iodine and acid value
     ii) Glycogenolysis and gluconeogenesis
     iii) Hodgkin's & Non-Hodgkin's lymphoma
     iv) Reducing sugar and non-reducing sugar
     v)   Anabolism and catabolism

2.   a) Write chemical properties of Fat & Oils.
     b) Describe about the beta oxidation of fatty acids.   [5 + 5+5]
     c)Write a note on diseases due to disorder of fat metabolism

3.   Define and classify vitamins. Give an account of sources, chemistry, physiological function and deficiency diseases of the following.   [3+(3x4)=15]
     a) Vitamin B_1 b) Vitamin B_{12} c) Vitamin C   d) Vitamin D_3

4.   a)   Define and classify proteins.
     b)   What are the biological functions of proteins?   [6+6+3=15]
     c)   Describe any one qualitative test for protein.

5.   Describe TCA cycle and calculate total number of ATPs formed in it. Write about abnormalities of carbohydrate metabolism.   [8+4+3=15]

6.   What is enzyme inhibition? Explain types of inhibition with examples. Describe factors affecting the enzyme activity.   [4+7+4=15]

7.   **Write short notes on (Any three):**   [5X3=15]
     a) Megaloblastic Anaemia
     b) Urea Cycle
     c) Role of Blood Platelets in health& diseases
     d) Michaelis–Menten equation
     e) Describe the difference between T & B lymphocytes
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