

MSc.
1st Sem.
2022

Roll No. _____

M.Sc. Nutrition and Dietetics
I Semester Examination 2023
Paper Title: Nutritional Biochemistry
Paper code: MDNCC-105

Time: 3 hours

Max. Marks: 60

Attempt all the questions. Marks are mentioned against each question

Q 1. Fill in the blanks

1 each (1 x 10 = 10)

1. Glycolysis pathway is often referred to _____ in honor of two biochemists.
2. The pro-opiomelanocortin (POMC) peptide family consists of hormones _____.
3. _____ Chemist in _____ used the term protein.
4. The multiple forms of an enzyme catalyzing the same reaction are called _____.
5. Homogentisate oxidase enzyme caused _____.
6. Lack of synthesis of the pigment melanin caused _____.
7. Essential penttosuria is related to the deficiency of an NADP-dependent enzyme _____.
8. _____ is due to deficiency of medium chain acyl CoA dehydrogenase.
9. _____ is caused due to impairment in cysteine utilization.
10. In glycogenolysis, the glycogen so formed is known as _____ which cannot be further degraded by phosphorylase.

Q 2. Answer any five of the following

(4 x 5 = 20)

1. Metabolic pathway of Glycolysis (only cycle) (4)
2. Explain any four glycogen storage diseases (4)
3. Write an account on ketogenesis (4)
4. Inter-relationship between carbohydrate, fat and protein metabolism (4)
5. Flame photometry and Beer-lambert's law (4)
6. Classification of enzymes and factor affecting enzyme activity (4)
7. Write briefly on various inborn error of amino acid metabolism (any eight) (4)

Q 3. Answer any three of the following

(10 x 3 = 30)

1. Explain any five inborn errors of lipids. (10)
2. Explain the HMP Shunt along with pathway. (10)
3. What are deamination and transamination? Explain the Urea cycle along with pathway. (10)
4. Define Hormones? What are classification of Hormones? Write an account of the anterior pituitary hormones. (10)