

Gurudas College
Department of Biochemistry
Internal Assessment – 2020
Semester-III Hons.
Paper CC 6 (SET 2)

Total Marks-10

Choose the correct option:

1. When blood sugar levels fall, glycolysis is halted in liver to allow _____
 - a) Homeostasis
 - b) Anaerobic respiration
 - c) Aerobic respiration
 - d) Gluconeogenesis
2. Which of the following statements is true regarding acetyl co-A?
 - a) It stimulates pyruvate dehydrogenase
 - b) It stimulates pyruvate carboxylase
 - c) It inhibits pyruvate carboxylase
 - d) It stimulates hexokinase
3. Glucagon and epinephrine stimulate glycogen breakdown to glucose 6-phosphate _____
 - a) Directly by binding to glycogen phosphorylase
 - b) Indirectly by first stimulating adenylate cyclase to make cAMP
 - c) Only in the liver
 - d) Only in muscle cells
4. What is the first reaction of the pentose phosphate pathway?
 - a) Oxidation of glucose 6-phosphate to 6-phosphoglucono- δ -lactone
 - b) Oxidation of 6-phosphogluconate to ketopentose ribulose 5-phosphate
 - c) Reduction of 6-phosphoglucono- δ -lactone to glucose 6-phosphate
 - d) Reduction of ketopentose ribulose 5-phosphate to 6-phosphogluconate

5. The acyl-CoA formed in the cytosol is transported to the ___ for oxidation using a shuttle involving the intermediate formation of acyl- _____.

- a) mitochondrial matrix, carnitine.
- b) mitochondrial matrix, coenzyme A.
- c) endoplasmic reticulum, albumin.
- d) endoplasmic reticulum, carnitine.

6. Conversion of acetyl co-A to malonyl co-A requires which of the following?

- a) NADPH
- b) H₂O
- c) Folic acid
- d) Biotin

7. Which of the following carries acyl groups in thio-ester linkage?

- a) Acyl carrier protein
- b) Acetyl co-A ACP transacetylase
- c) Enoyl-ACP reductase
- d) Malonyl co-A ACP transferase

8. The backbone of phospholipids is _____

- a) L-glycerol 1-phosphate
- b) L-glycerol 3-phosphate
- c) D-glycerol 3-phosphate
- d) sn-glycerol 1-phosphate

9. Polysaccharides, fats and proteins break down into metabolites of _____

- a) Glycolysis
- b) TCA cycle
- c) RNA repair
- d) Membrane synthesis

10. Citric acid cycle is oxidation of acetyl-CoA to

- a) oxygen
- b) nitrogen
- c) carbon dioxide
- d) carbon monoxide