

Gurudas College
Department of Biochemistry
Internal Assessment – 2020
Semester-III Hons.
Paper CC 6 (SET 3)

Total Marks-10

Choose the correct option:

1. How many steps are catalyzed by the same enzymes in both glycolysis and gluconeogenesis?

- a) 6
- b) 7
- c) 8
- d) 9

2. Which of the following is a potent regulator of glycolysis and gluconeogenesis?

- a) Fructose 2, 6-bisphosphate
- b) Fructose 1, 6-bisphosphate
- c) Fructose 6-phosphate
- d) Glucose 1, 6-bisphosphate

3. Which of the following enzymes is involved in the positive regulation of glycolysis/gluconeogenesis?

- a) Hexokinase II
- b) Hexokinase IV
- c) PFK-2/FBPase-2
- d) Pyruvate kinase

4. In the pentose phosphate pathway, the major products are _____

- a) Ribulose and NADPH
- b) Ribulose and NADH
- c) Ribulose and NAD⁺
- d) Ribulose and ATP

5. Each cycle of beta-oxidation produces

- a) 1 FAD, 1 NADH, and 1 acetyl-CoA.
- b) 1 FADH₂, 1 NADH, and 1 acetyl-CoA.
- c) 1 FAD, 1 NAD⁺, and 2 CO₂ molecules.
- d) 1 FADH₂, 1 NADH, and 2 CO₂ molecules.

6. The prosthetic group of acyl carrier protein is _____

- a) 4'-phosphopantetheine
- b) 3'-phosphopantetheine
- c) 2'-phosphopantetheine
- d) 1'-phosphopantetheine

7. Which of the following is a sphingophospholipid?

- a) Lecithin
- b) Sphingomyelin
- c) Plasmolegen
- d) Cardiolipin

8. Which of the following does not contain glycerol?

- a) Glycerophospholipids
- b) Galactolipids
- c) Sphingolipids
- d) Triacylglycerols

9. In the TCA cycle, which of the following combines with Acetyl CoA to form a 6 carbon compound?

- a) oxaloacetate
- b) glucose
- c) pyruvate
- d) thiamine

10. Oxaloacetate serves as the precursor for the synthesis of

- a) glutamate
- b) pyruvate
- c) aspartate
- d) oxalate