

Question	Option1	Option2	Option3	Option4	CorrectAns
What is the function of ribulose-5-phosphate epimerase?	epimerization of glucose-6-phosphate	. epimerization of ribulose-5-phosphate	epimerization of xylulose-5-phosphate	epimerization of fructose -4-phosphate	2
in HMP shunt pathway Which form of energy is used by the glucose-6-phosphate dehydrogenase enzyme?	ATP	AMP	GTP	NADPH	4
Which of the following statements is false about gluconeogenesis?	From the hydrolysis of tri-acyl-glycerol, fatty acids can be used as a carbon source	From red blood cells, lactate can be used as a carbon source	From the hydrolysis of tri-acyl-glycerol, glycerol is converted to glucose in gluconeogenesis	From muscle vigorous muscle activity, lactate can be used as a carbon source	1
From muscle vigorous muscle activity, lactate can be used as a carbon source-	Pyruvate carboxylase	Pyruvate dehydrogenase	Pyruvate kinase	Phosphofructokinase-1	1
Oxaloacetate is reduced to malate by _____	Pyruvate carboxylase	Malate dehydrogenase	Pyruvate kinase	Phosphofructokinase-1	2
Gluconeogenesis involves the conversion of _____	Glucose to pyruvate	Phosphoenolpyruvate to glucose	Phosphoenolpyruvate to glucose	Pyruvate to fructose	2
Formation of one molecule of glucose from pyruvate requires _____	4 ATP, 2 GTP and 2 NADH	3 ATP, 2 GTP and 2 NADH	4 ATP, 1 GTP and 2 NADH	2 ATP, 2 GTP and 2 NADH	1
Formation of one molecule of glucose from pyruvate requires _____	Alcohol dehydrogenase	Alcohol carboxylase	Pyruvate carboxylase	Pyruvate kinase	1
What is the main source of glucose carbons for gluconeogenesis?	Guanine	Alanine	Cysteine	Threonine	2

Which of the following statements about gluconeogenesis is correct?	Pyruvate is first converted to phosphoenolpyruvate by phosphoenolpyruvate carboxykinase	Fructose 1, 6-biphosphatase converts fructose 1, 6-bisphosphate into fructose 1-phosphate	Glucose 6-phosphatase hydrolyzes glucose 6-phosphate to release glucose into the blood	Glucose 6-phosphatase hydrolyzes glucose 6-phosphate and is found in liver and muscle	3
Glutamate is metabolically converted to $\alpha$ -ketoglutarate and $\text{NH}_4^+$ by a process _____	Oxidative deamination	Transamination	Reductive deamination	Deamination	1
Free ammonia combined with glutamate to yield glutamine by the action of _____	Glutaminase	Glutamine synthase	Glutamate dehydrogenase	Amino transferase	2
What is the necessary coenzyme for transamination reactions?	Pyridoxal phosphate	Thiamine pyrophosphate	NAD	Coenzyme A	1
Which is the first step in the catabolism of most L-amino acids once they have reached the liver is promoted?	Amino transferases	Glutaminase	Glutamine synthase	Glutamate dehydrogenase	1
The combined action of aminotransferase and glutamate dehydrogenase is referred as _____	Oxidative deamination	Transamination	Reductive deamination	Transdeamination	1
) Glutamine is converted to glutamate and $\text{NH}_4^+$ by _____	Amino transferases	Glutaminase	Glutamine synthase	Glutamate dehydrogenase	2
Which of the following hydrolyzes successive amino-terminal residues from short peptides?	Aminopeptidase	Enteropeptidase	Glutamine synthase	Glutamate dehydrogenase	1
Which of the following enzyme catalyzes the first step of glycolysis?	Hexokinase	Pyruvate kinase	Glucokinase	Phosphofructokinase-1	1

Cleavage of Fructose 1, 6-biophosphate yields _____	Two aldoses	Two ketoses	An aldose and a ketose	Only a ketose	3
How many carbon atoms are present in a cholesterol molecule?	23	27	30	20	2
Which form of energy is required in the rate limiting step of cholesterol synthesis?	ATP	NADH	AMP	FAD	2
Which enzyme is termed as the rate limiting enzyme of cholesterol synthesis?	thiolase	HMG-CoA reductase	HMG-CoA carboxylase	acyl-CoA	2
How many IPP molecules are required for the formation of squalene?	4	5	7	6	4
What is the starting molecule of cholesterol synthesis?	acetyl-CoA	acyl-CoA	glucose	pyruvate	1
Conversion of acetyl co-A to malonyl co-A requires which of the following?	NADPH	H <sub>2</sub> O	Folic acid	Biotin	4