

NEET RESPIRATION IN PLANTS — AEROBIC RESPIRATION: TCA (KREBS) CYCLE — PYQS

Max. Marks: 32
Questions: 8

Section A (MCQ) — 8 questions

Q.1 Identify the step in tricarboxylic acid cycle, which does not involve oxidation of substrate.

[NEET (UG) 2024]

- (1) Malic acid $\rightarrow$ Oxaloacetic acid
 (2) Succinic acid $\rightarrow$ Malic acid
 (3) Succinyl-CoA $\rightarrow$ Succinic acid
 (4) Isocitrate $\rightarrow$ α -ketoglutaric acid

Scan or tap for the full solution



Q.2 Match **List I** with **List II**:

List I		List II	
A.	Oxidative decarboxylation	I.	Citrate synthase
B.	Glycolysis	II.	Pyruvate dehydrogenase
C.	Oxidative phosphorylation	III.	Electron transport system
D.	Tricarboxylic acid cycle	IV.	EMP pathway

Choose the correct answer from the options given below :

[NEET (UG) 2023]

- (1) A-II, B-IV, C-I, D-III (2) A-III, B-I, C-II, D-IV
 (3) A-II, B-IV, C-III, D-I (4) A-III, B-IV, C-II, D-I

Scan or tap for the full solution



Q.3 The 5-C compound formed during TCA cycle is

[NEET (UG) 2022 (Phase 2)]

- (1) Fumaric acid (2) α -ketoglutaric acid
 (3) Oxalosuccinic acid (4) Succinic acid

Scan or tap for the full solution



Q.4 The number of time(s) decarboxylation of isocitrate occurs during single TCA cycle is

[NEET (UG) 2022 (Phase 2)]

- (1) Four (2) One (3) Two (4) Three

Scan or tap for the full solution



Q.5 The number of substrate level phosphorylations in one turn of citric acid cycle is [NEET (UG) 2020]

- (1) Zero (2) One (3) Three (4) Two

Scan or tap for the full solution



Q.6 Which statement is wrong for Krebs' cycle?

[NEET 2017]

- (1) There is one point in the cycle where FAD^+ is reduced to FADH_2 .
 (2) During conversion of succinyl CoA to succinic acid, a molecule of GTP is synthesised.
 (3) The cycle starts with condensation of acetyl group (acetyl CoA) with pyruvic acid to yield citric acid.
 (4) There are three points in the cycle where NAD^+ is reduced to $\text{NADH} + \text{H}^+$.

Scan or tap for the full solution



Q.7 All enzymes of TCA cycle are located in the mitochondrial matrix except one which is located in inner mitochondrial membrane in eukaryotes and in cytosol in prokaryotes. This enzyme is

[AIPMT 2007]

- (1) isocitrate dehydrogenase
 (2) malate dehydrogenase
 (3) succinate dehydrogenase
 (4) lactate dehydrogenase

Scan or tap for the full solution



Q.8 In which one of the following do the two names refer to one and same thing? [AIPMT 2003]

- (1) Krebs' cycle and Calvin cycle
 (2) Tricarboxylic acid cycle and citric acid cycle
 (3) Citric acid cycle and Calvin cycle
 (4) Tricarboxylic acid cycle and urea cycle

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2	3	4	5	6	7	8			
Ans.	3	3	2	3	2	3	3	2			