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(14)

SEAT No. _____

No. of Printed Pages : 02

SARDAR PATEL UNIVERSITY

B.Sc.(SEM-6)EXAMINATION-2019

US06CBOT06 (BOTANY)

Plant Metabolism and Biochemistry

04-04-2019
THURSDAY

TOTAL MARKS-70
TIME-10-00 AM TO 1-00PM

Que-1 MULTIPLE CHOICE QUESTIONS

(10)

(a) Amylase is an example for the class of enzyme namely-

(i) Hydrolases (ii) Isomerases (iii) Transferases (iv) None of these

(b) The E.C. number 6.x.y.z is for the class of enzyme namely-

(i) Hydrolases (ii) Isomerases (iii) Transferases (iv) Ligases

(c) The protein part of holoenzyme is known as-

(i) Metal activator (ii) Co-enzyme (iii) Prosthetic group (iv) Apoenzyme

(d) Phosphofructokinase is involved in-

(i) Glycolysis (ii) Citric acid cycle (iii) β -oxidation (iv) ETC

(e) Krebs' cycle takes place in-

(i) Mitochondria (ii) ER (iii) Chloroplast (iv) Cytoplasm

(f) The number of ATP molecules produced when a molecule of acetyl CoA is oxidized via citric acid cycle is-

(i) 12 (ii) 24 (iii) 38 (iv) 2

(g) Which one of the following are nitrogen fixers-

(i) Azotobacter (ii) Cyanobacteria (iii) Rhizobium (iv) All of these

(h) Nitrosomonas and Nitrobacter are involved in-

(i) Nitrification (ii) Denitrification (iii) Ammonification (iv) None of these

(i) How many carbons are present in myristic acid?

(i) 14 (ii) 6 (iii) 18 (iv) 20

(11)

(P.T.O.)

(j) How many double bonds are present in linolenic acid?

(i) 1 (ii) 2 (iii) 3 (iv) 4

QUE-2 SHORT QUESTIONS (ANSWER ANY TEN).

(20)

(a) Define-Biocatalyst

(b) What is activation energy?

(c) Write on induced fit model of enzyme action.

(d) Write examples of structural polysachharides.

(e) How pyruvate is converted to acetyl co-A?

(f) What is oxidative level phosphorylation?

(g) What are the sources of nitrogen?

(h) Give example of organisms responsible for biological nitrogen fixation.

(i) Define-Ampholytes

(j) Give examples of any four unsaturated fatty acids.

(k) Define-Non essential fatty acids.

(l) How many ATP molecules are produced after complete oxidation of Hexanoic acid.

Que-3 Write in detail about enzyme inhibition

(10)

OR

Que-3 (a) How enzymes are classified?

(06)

(b) Write a note on mechanism of enzyme action.

(04)

Que-4 Write reactions catalyzed by following enzymes.

(a) Hexokinase (b) Aldolase (c) Succinate dehydrogenase (d) Citrate synthetase (10)

OR

Que-4 Write in detail on electron transport system

(10)

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