Model Question Paper

Botony-Plant physiology - Part IV

12th Standard

Biology

Reg.No. : | | | | | | |

I.Answer all the questions.
II.Use blue pen only.
III.Question Number 20 is compulsory.

Time : 01:00:00 Hrs

Total Marks : 85

Part-A

5 x 1 = 5

1) In Kreb's cycle $FADH_2$ is produced during
   (a) Succinic acid → Fumaric acid (b) Fumaric acid → Malic acid (c) Succinyl co - A → Succinic acid (d) Malic acid → Oxaloacetic acid
2) Oxidative decarboxylation do not occur during
   (a) Glycolysis (b) Kreb's cycle (c) Oxidation of pyruvic acid (d) Citric acid cycle
3) Find the physiological effect of Abscisic acid
   (a) induces bud growth (b) enhances parthenocarpy (c) prevents abscission (d) causes closure of stomata
4) Crops can be produced earlier by
   (a) Photoperiodism (b) Photosynthesis (c) Vernalization (d) Dark respiration
5) Find the hydrogen carriers from the following
   (a) RUBP (b) ATP (c) NAD (d) G3P

Part-B

6 x 3 = 18

6) What is a short day plant?
7) Define vernalization
8) Write about the techniques of vernalization.
9) What is devernalization ?
10) Write any two advantages of vernalization.
11) What is glycolysis?

Part-C

5 x 5 = 25

12) Explain Kuhne's fermentation experiment with diagram.
13) Write the classification of enzymes.
14) Write the properties of enzymes.
15) Explain mechanism of enzyme action with graph.
16) Write short notes on site of photosynthesis.

Part-D

4 x 10 = 40

17) Write an account on cytokinin,ethylene and abscisic acid with their physiological effects.
18) Write an account on photoperiodism and vernalization.
19) Write an account on Dark reactions of photosynthesis (or) Explain Calvin's cycle. (explanation (or) flow chart)
20) Write an essay on C_4 path way (or) Describe Hatch-Slack path way of CO_2 fixation.
21) Describe theories explaining the mechanism of enzyme action.

****