Model Question paper

Plant Physiology (B) 2

11th Standard

Biology

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

I. Answer all the questions.

II. Use blue pen only.

Time : 01:30:00 Hrs

Total Marks : 55

Part - A

10 x 1 = 10

1) The theory explaining passive absorption of mineral salts is ___

(a) Ion exchange (b) Carrier concept (c) Cytochrome pump theory (d) None of the above

2) The starch - sugar interconversation theory was given by

(a) Steward (b) Scarth (c) Levitt (d) Raschke

3) Contact exchange theory was put-forward by __

(a) Jenny and Overstreet (b) Hylmo and Kramer (c) Bennet and Clark (d) De Vries and Curtis

4) J.C.Bose gave the

(a) Relay pump theory (b) Root pressure theory (c) Pulsation theory (d) Cohesion-tension theory

5) The transpiration pull theory was supported by

(a) Renner (b) Curtis (c) Clark (d) All the above

6) Yellow spot disease in citrus is caused due to the deficiency of.....

(a) Copper (b) Zinc (c) Nitrogen (d) Molybdenum

7) Election transport theory of active absorption of minerals was put forth by.....

(a) Bennet-Clark (b) Jenny and Overstreet (c) H.Lundegardh (d) Donnan

8) Active absorption of minerals can be explained by.....

(a) Carrier concept (b) Contact exchange theory (c) Diffusion Hypothesis (d) Protoplasmic streaming theory

9) Among the following, the denitrifying bacterium is.....

(a) Bacillus subtilis (b) Bacillus ramosus (c) Bacillus Vulgaris (d) Rhizobium

10) Blue-green algae like Nostoc establish symbiotic relationships in the coralloid roots of.....

(a) Mango (b) Arachis hypogea (c) Leguminous plants (d) Cycas

Part - B

10 x 2 = 20

11) Define Stomata.

12) Define Cohesion

13) What is meant by Ammonification?

14) What is Donan equilibrium?

15) What are the macro-nutrients?

16) What are Trace elements or Microelements?

17) What id meant by passitive and active absorption?

18) What is the importance of Munch's hypothesis?

19) What are bacteroids?

20) Define Root pressure

Part - C

5 x 3 = 15

21) Explain Munch's mass flow hypothesis.

22) Describe the transport of minerals by ion exchange.

23) Describe the ringing experiment to demonstrate translocation of solutes.

24) Explain the components of water potential.

25) Give an account of the inherent properties of the leaf which affect the rate of transpiration

Part - D

2 x 5 = 10

26) Explain the Protein-Lecithin carrier concept theory.

27) Give an account of the various theories explaining the ascent of sap.

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