

(16) SEAT No. _____

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SARDAR PATEL UNIVERSITY
B. Sc. (Sem-5) Examination
PLANT PHYSIOLOGY - US05CBOT06 (BOTANY)
SATURDAY, 03/11/2018, TIME-10-00A.M. TO 01-00 P.M.

MARKS-70

Q1 Choose the appropriate answer for the following multiple choice questions (10)

- (i) Plant hormones are also known as:
(a) Growth factors (b) Growth regulators
(c) Phytohormones (d) all of these
- (ii) _____ is used on seedless grape variety to increase the size and quality of fruit.
(a) GA (b) Auxin
(c) Cytokinins (d) None of these
- (iii) Who suggested the term photoperiodism:
(a) Garner & Allard (b) Hammer
(c) Bonner (d) All of these
- (iv) The pigment that controls flowering is known as:
(a) Phytochrome (b) Cytochrome
(c) Chlorophyll (d) none of these
- (v) Who proposed the protein model of cross linking?
(a) Garner (b) Allard
(c) Levitt (d) none of these
- (vi) Stress caused by pathogen called:
(a) Biotic stress (b) Abiotic stress
(c) Osmotic pressure (d) None of these
- (vii) Phytoogerontology concerned with the study of-
(a) Senescence (b) Vernalization
(c) Dormancy (d) None of these
- (viii) Which one of the following is known to accelerate senescence?
(a) GA (b) Auxin
(c) Cytokinins (d) ABA
- (ix) Name a hormone responsible for delaying senescence:
(a) GA (b) Auxin
(c) Cytokinins (d) ABA
- (x) Which one of the following causes oxidative stress in plants?
(a) Air pollution (b) Heavy metals
(c) UV light (d) All of these

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(P. T. O.)

Q-2 Answer any TEN of the following questions in brief: (20)

- (i) List out the physiological effects of ethylene on plants.
- (ii) Define-growth hormone
- (iii) Comment upon the importance of dark period in plant life.
- (iv) Give examples of SDP.
- (v) What is stress?
- (vi) Write in brief about effect of stress on cell membrane.
- (vii) What is strain?
- (viii) Define- Senescence
- (ix) What are SAGs?
- (x) Differentiate between adaptation and acclimation
- (xi) How ethylene is synthesized?
- (xii) Write a brief note on vernalization.

Q-3 With suitable examples and illustrations, give an account of Auxins. (10)

OR

Q-3 Discuss the physiological roles of: (a) kinetin in senescence (05)
(b) GA in dormancy (05)

Q-4 Discuss the physiology of vernalization and its significance in agriculture (10)

OR

Q-4(a) Distinguish between SDP, LDP and DNP. (06)
(b) Write a concise note on phytochrome. (04)

Q-5 With suitable examples, discuss the types of biotic stresses and explain any one type of biotic stress in detail. (10)

OR

Q-5 Discuss in detail the mechanism of stress resistance in plants (10)

Q-6(a) Explaining how senescence is different from ageing, discuss the types of senescence (05)

(b) Draw a flow chart of major events taking place during flower senescence. (05)

OR

Q-6 (a) Write in detail about theories of senescence. (07)

(b) Write the biological significance of senescence. (03)

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