

SEAT No. \_\_\_\_\_

No. of Printed Pages: 4

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SARDAR PATEL UNIVERSITY

B.Sc. EXAMINATION-SEM-5 (BOTANY)

US05CBOT06-PLANT PHYSIOLOGY

Date: 31/12/2020

Time: 2-00 PM to 4-00PM

Thursday

Total marks: 70

Q-1MCQ

10.

1. Indole-3-acetic acid is the most common naturally occurring plant hormone of \_\_\_\_\_ class

- (a) Gibberellin
- (b) Auxin
- (c) Ethylene
- (d) Cytokinin

2. This hormone is not a growth inhibitor

- (a) Dormin
- (b) Abscisic acid
- (c) Ethylene
- (d) IAA

3. \_\_\_\_\_ is a gaseous plant hormone

- (a) IBA
- (b) Ethylene
- (c) Abscisic acid
- (d) NAA

4. \_\_\_\_\_ influences the process of flowering in plants.

- (a) Photoperiod
- (b) Water in the soil
- (c) The acidity of the soil
- (d) Amount of green pigment

5. Phytochrome is a photosensitive pigment involved in \_\_\_\_\_.

- (a) Geotropism

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[P.T.O.]

- (b) Phototropism
- (c) Photoperiodism
- (d) Photorespiration

6. In which of the following living species, phytochrome, the blue-green pigment is found?

- (a) Algae
- (b) Fungi
- (c) Flowering plants
- (d) Vascular cryptograms

7. Which group of fruits/vegetables are most susceptible to Post harvest diseases?

- (a). Tomato and potato.
- (b). Cashew nut and almond.
- (c). Foot yams and pumpkin.
- (d). All of the above.

8. From 1968 to 2004, the numbers of Indian fruit and vegetable preservatives industry grew..?

- (a). 15%.
- (b). 10.24%.
- (c). 21.43%
- (d). 18%.

9. In terrestrial habitats, temperature and rainfall conditions are influenced by

- (a) water transformations
- (b) transpiration
- (c) thermoperiodism
- (d) translocation

10. With an increase in the turgidity of a cell, the wall pressure will be

- (a) fluctuate
- (b) remain unchanged
- (c) increase
- (d) decrease.

Que-2 Fill in the blanks

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- a. Hormone responsible for senescence is-----
- b. Which hormone prevents the fall of fruits?-----
- c. Seed dormancy is due to the-----
- d. Cell elongation in internodal regions of the green plants takes place due to-----
- e. Treatment of seeds at low temperature under moist conditions to break its dormancy is called-----
- f. An enzyme that can stimulate germination of barley seeds is-----
- g. The wavelength of light absorbed by Pr form of phytochrome is-----
- h. Cut or excised leaves remain green for long if induced to root or dipped in-----

Que-3 Answer any ten

(20)

- (a) List out the physiological effects of ethylene on plants.
- (b) Define-growth hormone
- (c) Write a brief note on short day plants,
- (d) Give examples of SDP.
- (e) What is stress?
- (f) Write in brief about effect of stress on cell membrane.
- (g) What is strain?
- (h) Define- Senescence
- (i) What are SAGs?
- (j) Define- senescence.
- (k) How ethylene is synthesized?
- (l) Write a brief note on vernalization.

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Que-4 Attempt any four

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- a. Write a note on Auxins.
- b. Discuss: Role of kinetin in senescence
- c. Write in detail about vernalization
- d. Distinguish between SDP, LDP and DNP.
- e. Write a note on types of biotic environmental stress
- f. Discuss: Write about stress resistant mechanism.
- g. What is senescence? Discuss its type.
- h. Write in detail about theories of senescence

—————X—————

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