V.P. &R.P.T.P.SCIENCE COLLEGE

B. Sc. (Sem-5) Examination

Subject: BOTANY

Paper: US05CBOT06 (PLANT PHYSIOLOGY)

Date: 08/10/2018 (Monday) Max. Marks: 50

Time: 10-00A.M. to 12-00 NOON.

Q1. Choose an appropriate answer for the following multiple choice questions: (10x1=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 control 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 (b) Abiotic (c) Osmotic (d) None of these

(vii) Phytogerontology 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 fruit ripening?

(a) GA (b) Auxin (c) Ethylene (d) Cytokinin

Q2. Answer <u>any FIVE</u> of the following questions in brief: **(5x2=10)**

(i) List out the physiological effects of kinetin on plants.

(ii) Define 'Growth hormone'

(iii) Enumerate the uses of application of plant growth hormones in agriculture.

(iv) Write a brief note on short day plants.

(v) Give examples of DNP.

(vi) Differentiate between stress and strain.

(vii) Write in brief about effect of stress on cell membrane.

(viii) What is abscission and state its importance in plant life.

Q3. Write a note on Auxins. **(08)**

<u>OR</u>

Q3. Discuss: **(a)** Role of kinetin in senescence **(05)**
(b) Role of GA in dormancy **(03)**

Q4. Write in detail about Phytochrome. **(08)**

<u>OR</u>

Q4(a) Distinguish between SDP, LDP and DNP. **(04)**
(b) Write the difference between Pr and Pfr forms of phytochrome. **(04)**

Q5. Write a note on types of Abiotic environmental stress. **(08)**

<u>OR</u>

Q5. Discuss: Write about stress resistant mechanism. **(08)**

Q6 (a) Explaining physiology of senescence, discuss its types. **(05)**
(b) Draw a flow chart of major events taking place during flower senescence. **(03)**

<u>OR</u>

Q6 (a) Write in detail about theories of senescence. **(05)**
(b) Write the biological significance of senescence. **(03)**

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