Sem-III–Bot-GE-A_2
(Reg)

2020-21

Time - 3 hours
Full Marks – 60

*Answer **all groups** as per instructions.*
Figures in the right hand margin indicate marks.
Candidates are required to answer
in their own words as far as practicable.

Group-A

1. Answer all questions or fill in the blanks as required. [1x8]
   a) The most abundant element present in plant is _____.
   b) Enzymes of TCA cycle are present in the organelle_____.
   c) The effect of length of day on flowering of plants is called_____.
   d) Enzymes are the polymers of_____.

   Express in one technical term :

   e) The protein component of conjugated enzyme-
   f) The process of synthesis of ATP using solar energy –
   g) Chemical compounds that reduce the rate of transpiration When applied-
   h) Plant growth regulators are called as-

GROUP-B

2. Answer any eight of the following questions within two or three sentences each. [$1\frac{1}{2}$x8]
   a) Root pressure
   b) Antena molecules
   c) Anaerobic respiration
   d) Chlorosis
   e) Day neutral plants
   f) Denitrification

g) Sunken stomata

h) Simple enzymes

i) Induction of parthonocarpy

j) Cytochromes

GROUP-C

3. Write notes on any eight of the followings within 75 words: [2x8]

a) Guttation

b) Micronutrients

c) C-pathway

d) Enzyme inhibitors

e) Metabolism

f) Vernalization

g) Cyclic-photophosphorylation

h) LDP and SDP

i) Properties of enzymes

j) Photosynthetic pigments

GROUP- D

4. Answer <u>any four</u> questions within 500 words each. [6x4]

a) Give an account of transport of ions across the cell membrane.

b) Define transpiration. Describe the various theories to explain mechanism of stomatal transpiration.

c) Describe the mechanism of CO_2 fixation in C_3-plants.

d) What is respiration? Describe the steps of glycolysis.

e) What are enzymes? Discuss the mechanism of enzyme action.

f) Give an account of discovery and physiological roles of Auxins.

g) Describe the process of biological fixation of nitrogen.

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