Unit-III / FkeâeF-III

6. What are plant hormones? Describe the synthesis of cytokinins in plants and its role in plants. 7½

heeohe nejceevme keÙee n? meeFšekeâeFeveve keâe heeohee ce meMue<eCe leLee Fmekeâ heeohe peeJeve ce keâeÙee keâe JeCeve keâeepeS~

7. Explain the following : 3½ + 4

(a) Gibberellins

(b) Nastic Movements

evecveeueeKele keâe meceePeeFS :

(a) epeyeeueve

(b) veeemškeâ ieelelÙee

Unit-IV / FkeâeF-IV

8. Describe the physical and chemical properties of carbohydrates. 7½

keâeyeeneF[š keâ Yeeelekeâ SJe jmeeÙeevekeâ ieCee keâe JeCeve keâejÙe~

9. What are enzymes? Describe the mechanism of their action. 7½

eJekeâj (ekeâC[Jekeâ) keÙee nele n? Fvekeâe keâeÙe keâjve keâe eJeeOe keâe eJeJejCe oeepeÙe~

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Roll No. _____

S-636

B.Sc. (Part-II) Examination, 2015

BOTANY

Third Paper

(*Plant Physiology and Biochemistry*)

Time Allowed : Three Hours] [Maximum Marks : 50

Note : Answer five questions in all. Question No. 1 is compulsory. In addition to this, attempt one question from each of the four Units. Attempt all parts of a question together.

keâue heeÙe ØeMvee keâ Gòej oeepeS~ ØeMve me. 1 DeeveJeeÙe n~ Fmekeâ Deelee jòeâ Ûeej FkeâeFÙee ce me ØelÙekeâ FkeâeF me Skeâ ØeMve keâeepeS~ Skeâ ØeMve keâ meYee Yeeiee keâe SkeâmeeLe oeepeS~

1. Briefly explain the following : 10×2

evecveeueeKele keâe me#ehe ce meceePeeFS :

(i) Zn deficiency symptoms in plants

heeOee ce Zn keâ keâcee keâ ue#eCe

(ii) Permeability

heejiecÙelee

(iii) Factors affecting enzyme activity

keâejkeâe keâe SvpeeFce e>eâÙee hej ØeYeeJe

(iv) Emerson effect

Fcejmeve ØeYeeJe

(v) Transpiration

Jee<heelmepeve

(vi) Root nodule bacteria

pe[-vee[Ùeue peeJeeCe

(vii) Role of Na^+ and K^+ in stomatal opening and closing

mšeceše keâ Keueve SJe yevo neve hej Na^+ SJe K^+ keâe ØeYeeJe

(viii) Long Day plants

oeehlekeâeueeÙe heeOee

(ix) Calmodulin

keâucee[Ùeeueve

(x) Diffusion

eJemejCe

Unit-I / FkeâeF-I

2. Give a description of essential elements and their functions with reference to micro nutri-

ents Fe, Mn, Cu, B and Mo. 7½

heeOee ce ceKÙe lelJe SJe Gvekeâ keâeÙe keâe eJeJeÛevee keâj- ceKÙelee: Fe, Mn, Cu, B SJe Mo keâ meoYe ce~

3. Describe the following: 3½ + 4

(a) Active absorption of salts

(b) Theories regarding active absorption of salts

evecveeueeKelee keâe JeCeve keâeepeS :

(a) ueJeCee keâe mee>eâÙe DeJeMee<eCe

(b) mee>eâÙe DeJeMee<eCe keâe eJeeYeVe heejkeâuheveeS

Unit-II / FkeâeF-II

4. Describe the following: 3½ + 4

(a) Mitochondria

(b) Kreb's Cycle

evecveeueeKelee keâe JeCeve keâeepeS :

(a) ceeFšekeâeev[Ùee

(b) >eâye Ûe>eâ

5. Describe the following: 3½ + 4

(a) C_3 metabolism

(b) CAM Pathway

evecveeueeKelee keâe JeCeve keâeepeS :

(a) C_3 GheeheÛeÙe

(b) keâce heeLeJe