



Reg. No. :

Name :



K16P 1000

Third Semester M.A./M.Sc./M.Com. Degree (Reg./Supple./Imp.)
Examination, November 2016
BOTANY
BOT 3C10 : Plant Physiology
(2014 Admission Onwards)

Time : 3 Hours

Max. Marks : 60

Instruction : Draw diagrams wherever necessary.

SECTION – A

1. a) Write an account on the fertilisers supplementing the essential elements.

OR

- b) Describe the ultrastructure of chloroplast.

2. a) Describe the mechanism of reserve food mobilisation during germination.

OR

- b) Explain the role of phytohormones in plant growth and development.

(2×8=16)

SECTION – B

Answer any two :

3. a) What is water potential ?
b) Explain the methods of determining water potential.
c) Write a note on the role of water potential in agricultural productivity.

(1+2+3)

P.T.O.



4. a) Define growth.
 b) Add a note on growth curve.
 c) Describe the methods of studying growth phase. (1+2+3)
5. a) What are phytochromes ?
 b) How do you quantify phytochromes ?
 c) Explain the role of phytochromes in plant growth. (1+2+3)

(2×6=12)

SECTION – C

Answer any six.

6. Explain the types of soils and their field capacity.
 7. Write a note on physiological adaptation of desert plants.
 8. Differentiate passive diffusion from facilitated diffusion.
 9. Explain chemiosmotic mechanism of ATP formation.
 10. Write briefly on physiological adaptations to stress.
 11. Explain phosphorus metabolism.
 12. Explain respiration in the germinating seeds.
 13. Write a note on antitranspirants. (6×3=18)

SECTION – D

Answer any seven.

14. Capillary water.
 15. Chemical potential.



16. Turgor pressure.
 17. Ca-Calmodulin complex.
 18. Symport and antiport.
 19. HCN.
 20. Senescence.
 21. Climacteric fruits.
 22. Salt glands.
 23. Compatible solutes. (7×2=14)