

BOTANY
COURSE-BOTPG3414
PLANT PHYSIOLOGY AND METABOLISM

Time: 3 Hours

Full Marks 75

1. Answer the following (any three):

25x3=75

- a) What is SRP? What is meant by protein targeting? Discuss the pathway of protein targeting in endoplasmic reticulum with suitable illustration? What is signal sequence? State the common and important characteristics of signal sequence. (1+3+15+2+4)
- b) What is glycosylation? Discuss the types and process of glycosylation in brief. What is N-glycosylation? Differentiate between N-glycosylation and O-glycosylation. (3+16+2+4)
- c) Discuss the ABC model of flower development? Briefly discuss about the floral organ identity genes, caudal genes and meristem identity genes. What would be arrangement of floral organ if B and C genes individually get mutated? What is potassium myth? (12+9+3+1)
- d) What is reproductive transition phase and vegetative phase change? Discuss the regulation of transition phase from vegetative growth to reproductive phase through different signal pathway. (5+20)
- e) What is heat shock protein? Give a brief account on different types of heat shock protein. Write short notes on molecular chaperone? (2+13+10)

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