

BSC. PART - II EXAMINATION - 2017

BOTANY SUB/GEN

Answer five questions selecting not more than two from each Group in which

Q. No. 1 is compulsory

1. (a) Answer the following questions :
- (i) Define Amphivasal vascular bundle
 - (ii) What is tapetum ?
 - (iii) Define isotonic solution
 - (iv) What is photolysis of water ?
 - (v) What is holoenzyme ? (vi) What is totipotency ?
 - (vii) Define micronutrients.
- (b) Choose the correct answer of the following :
- (i) Histogen 'Periblem' gives rise to :
 - (a) Vascular tissue and pith
 - (b) endodermis
 - (c) Cortex including endodermis
 - (d) None of these
 - (ii) Wood is common name for :
 - (a) Vascular bundle
 - (b) Secondary xylem
 - (c) all tissues which form a plant body
 - (d) Phloem
 - (iii) Perisperm is remaining part of :
 - (a) aril
 - (b) ovule
 - (c) Nucellus
 - (d) Integument
 - (iv) The role of double fertilization in angiosperms is to produce :
 - (a) endosperm
 - (b) integument
 - (c) cotyledons
 - (d) endocarp
 - (v) When water moves through a semipermeable membrane then which of the following pressure develops ?
 - (a) O.P.
 - (b) S.P.
 - (c) T.P.
 - (d) W.P.
 - (vi) Which is more responsible for apical dominance ?
 - (a) G.A.
 - (b) cytokinin
 - (c) auxin (IAA)
 - (d) ethylene
 - (vii) Which of the following are called neutral fats ?
 - (a) Triglycerides & waxes
 - (b) Phospholipids & glycolipids
 - (c) Sterol
 - (d) None of these
 - (viii) Which of the following is used to join the segments of DNA during genetic engineering ?
 - (a) lipase
 - (b) ligase
 - (c) gyrase
 - (d) helicase

GROUP - A

- 2. What is vascular cambium ? Describe its structure and function.
- 3. Give an account of development of dicot embryo.
- 4. Write short notes on any two of the following :
 - (a) T.S. of Dracaena stem
 - (b) Tetrasporic embryosac
 - (c) Root apex Organization
 - (d) Helobial endosperm

GROUP - B

- 6. What is Photorespiration ? Discuss its mechanism ?
- 6. Describe the pentose phosphate pathway.
- 7. What is transpiration ? Explain various mechanism of transpiration.

GROUP - C

- 8. Define enzymes. State their characteristics and discuss mode of action.
- 9. What is genetic engineering ? Give an outline of tools and techniques of genetic engineering.
- 10. What are plant lipids ? How are they biosynthesized ? Discuss mechanism of their biosynthesis.