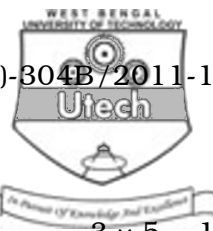






- iii) MADS-Box genes contain a special domain called
- a) K-domain
  - b) C-domain
  - c) B-domain
  - d) None of these.
- iv) The development of embryos from the cells of nucellus or integument is known as
- a) Apogamy
  - b) Apospory
  - c) Parthenogenesis
  - d) Adventive embryony.
- v) Cadasteral activity is known as the
- a) competitive interaction between the genes
  - b) competitive interaction between members of different classes of genes
  - c) combinational interactions between members of different classes of genes
  - d) interactions between the members of same gene class.
- vi) Tapetum is responsible for releasing individual microspore by releasing
- a) Nuclease
  - b) Callase
  - c) Callose
  - d) None of these.
- vii) Floral homeotic gene in Arabidopsis for carpels is
- a) APETALA
  - b) PISTILLATA
  - c) DEFICIENS
  - d) AGAMOUS.



**GROUP – B**

**( Short Answer Type Questions )**

Answer any *three* of the following.  $3 \times 5 = 15$

2. Why in plants post-embryonic development is more elaborate than embryonic development and how the process of development differs with animal ?  $1 + 4$
3. Explain how Floricaula and Knotted genes help to transmit information within plant cells.
4. Explain how environment regulate normal plant development.
5. Auxin plays a key role in establishing apical basal axis of the embryo. Explain.
6. Discuss meristem establishment in plants.

**GROUP – C**

**( Long Answer Type Questions )**

Answer any *one* of the following.  $1 \times 15 = 15$

7. What do you mean by MADS-box gene in plants ? Explain flower development in the light of recent models explaining the interactions of different homeotic genes. What do you mean by caudal function ?  $3 + 9 + 3$
8. Discuss different shape mutants during pattern development in plants. Describe the leaf developmental process in plants.

$8 + 7$