

Total No. of Questions : 8]

SEAT No. :

**P3245**

**[5032]-302**

[Total No. of Pages :2

**M.Sc.**

**BOTANY**

**Bo-3.2 : Developmental Biology and Economic Botany  
(2013 Pattern) (Semester - III) (New) (Credit System)**

*Time : 3 Hours]*

*[Max. Marks :50*

*Instructions to the candidates:*

- 1) *Attempt any five questions.*
- 2) *All questions carry equal marks.*
- 3) *Draw neat labelled diagram wherever necessary.*

- Q1)** a) Explain molecular mechanism of Cell-cell interaction. [4]  
b) Give an account of how polarity and symmetry maintain during development. [4]  
c) What is concept of 'Determination'. [2]
- Q2)** a) Write an account of embryo development in monocot. [4]  
b) Discuss developmental mechanism of 'Megasporogenesis'. [4]  
c) State significance of double fertilization. [2]
- Q3)** a) Explain molecular aspect of embryogenesis and seedling developement.[4]  
b) Write note on SAM. [4]  
c) What is 'Redifferentiation. [2]
- Q4)** a) State the method of cultivation of Rubber. Add note on its products.[4]  
b) Comment on fibre industry. [4]  
c) State different varieties of strawberry. [2]

**P.T.O.**

- Q5)** a) Discuss in detail about the meristem as dynamic center of cell regeneration. [5]  
b) Give an account of seed germination. [5]
- Q6)** a) What is double fertilization? Write note on abnormalities in fertilization. [5]  
b) Comment on cell differentiation, redifferentiation and dedifferentiation. [5]
- Q7)** a) What is polyembryony? Describe its classes. [5]  
b) Write economic importance of deodar and sandal wood. [5]
- Q8)** a) Describe the method of cultivation of cinnamon. Add note on its economic importance. [5]  
b) Discuss the role of organ culture in understanding the developmental process. [5]

