

B.Sc. DEGREE EXAMINATION, APRIL 2008  
BRANCH V(a) – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY  
SIXTH SEMESTER

COURSE : MAJOR – CORE  
PAPER : APPLIED BIOTECHNOLOGY  
TIME : 3 HOURS

MAX. MARKS : 100

SECTION –A

ANSWER ALL QUESTIONS

I. FILL IN THE BLANKS: (5 MARKS)

1. \_\_\_\_\_ is regarded as the father of tissue culture.
2. A microbial cell or foreign substance that causes an immune response is known as an \_\_\_\_\_.
3. \_\_\_\_\_ are responsible for initiating immune responses.
4. A small piece of plant taken for culture is called \_\_\_\_\_.
5. In human interferon is produced by fibroblast in connective tissues, lymphocytes and \_\_\_\_\_.

II. MATCH THE FOLLOWING: (4 MARKS)

- |  |   |                           |
|--|---|---------------------------|
| 6. Role of auxin and cytokinin in organogenesis was found out by | - | Skoog & Miller            |
| 7. Cultures incubated at 18°C lead to                            | - | Root                      |
| 8. High auxin and low cytokinin promotes                         | - | Shoot bud differentiation |
| 9. Low auxin and high cytokinin promotes                         | - | Guha & Maheshwari         |
|  | - | Shoot                     |

III. STATE WHETHER TRUE OR FALSE : (5 MARKS)

10. Hybridoma originated as an artificial combination of two cells into a single unit.
11. The nutrient media used in tissue cultures are commonly sterilized by autoclaving and filter sterilisation.
12. The haptens are those substances, which do not produce the antibodies in vertebrates.
13. Xenobiotic is completely synthetic chemical compound and it is found in nature on earth.
14. The substances, which elicit immune response, are known as immunogens.

IV. CHOOSE THE CORRECT ANSWER: (4 MARKS)

15. Most widely used disinfectants are  
a) Bromine water b) Mercuric chloride c) Ethyl alcohol d) all the above.
16. Which one is not a cry gene obtained from *Bacillus thuringiensis*.  
a) Cry IA b) Cry IB c) Cry IC d) Cry ID

