

Roll No. \_\_\_\_\_

[Total No. of Pages : 2

**SVIS 320 A-15**  
**B.Sc. VIth Semester Degree Examination**  
**Bio Technology (Opt)**  
**(Plant and Animal Cell Culture)**  
**Paper - 6.6**

Time : 3 Hours

Maximum Marks : 80

***Instructions to candidates:***

1. Answer all the questions.
2. Draw diagrams wherever necessary

**I. Answer the following in brief.**

**(15×1=15)**

1. Callus
2. Explant
3. Organogenesis
4. Totipotency
5. HEPA filters
6. Cell cloning
7. Micropropagation
8. HAT medium
9. Auxin
10. Nitech medium
11. Embryo culture
12. Vaccine
13. Stem cells
14. Serum
15. Transgenesis
16. Shoot induction
17. Pollen culture

**II.** Write short note on any five of the following **(5×5=25)**

16. Influence of growth regulators on cell culture
17. Meristem culture technique
18. Somoclonal variations and its applications
19. Applications of animal cell culture
20. Methods of vaccine preparation
21. Growth factors of serum as medium
22. In vitro haploids and their applications

**III.** Write explanatory note on any four of the following. **(4×10=40)**

23. Protocol of single cell suspension culture and its applications in agronomy.
  24. Method of protoplast isolation and add its principle and applications
  25. Method of animal cell culture in preparation of regenerative medicines.
  26. Human genome project and its implications
  27. Various steps involved in animal cell culture
  28. Various steps involved in plant tissue culture.
-