

**VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM**  
**(Deemed to be University)**

**B.PHARM. DEGREE EXAMINATION – August 2018**  
**Fourth Year**

**ADVANCED PHARMACOGNOSY**

Time : Three hours

Maximum: 90 marks

I. Write essays on any **TWO** questions: **(2 x 15 = 30)**

1. (a) Define tissue culture and classify the tissue culture methods. (5)
- (b) Enumerate the stages involved in the tissue culture (5)
- (c) Write the application of tissues culture in the pharmacognosy (5)
2. (a) Explain the biosynthetic pathway for any one beta lactum antibiotic.(10)
- (b) Write note on biosynthesis of chloramphenical. (5)
3. (a) Write in detail the preparation stages involved in the bhasmas. (5)
- (b) Write standardization procedure for bhasmas (5)
- (c) Explain the differences between ayurveda and siddha systems. (5)

II. Write short essays on any **EIGHT** questions: **(8 x 5 = 40)**

4. Write a note on use of gel electrophoresis in the compound isolation
5. Define secondary metabolites explain the sennoside production in plant based industries
6. Define and classify the allergens.
7. Write a note on different types of extraction process
8. Detail the role of HPLC in the herbal drug analysis
9. Write the biogenesis process for steroidal glycoside
10. Write a note on WHO herbal assessment guidelines
11. Write role of Radioactive isotopes in the biogenetic pathway
12. Detail the procedures involved in the cosmetic products allergy test
13. Enumerate the enzymes derived from plants.

III. Write short notes on any **TEN** questions: **(10 x 2 = 20)**

14. Define iodine value
15. Write the botanical source, family, chemical constituents and uses for papain
16. Write the stability parameters for herbal extracts.
17. Role of immobilized enzyme in drug analysis
18. Write a note teratogenic substances
19. Write a note on physical parameter evaluation in herbal drugs.
20. Define Unani system of medicine
21. Define callus
22. Name the drugs belong to aminoglycoside.
23. Antiviral agents from natural sources

24. Write the factors that affects the plant tissue culture.

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