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Reg. No. :

Code No. : 7890

Sub. Code : PBOM 14

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2019.

First Semester

Botany – Core

PHYTOCHEMISTRY

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The pairing of homologous chromosomes

- (a) Tetrads
- (b) Crossing over
- (c) Synapsis
- (d) Terminalisation

2. Transition type of gene mutation is caused when

- (a) GC is replaced by TA
- (b) CG is replaced by GC
- (c) AT is replaced by CG
- (d) AT is replaced by GC

3. Which of the following statements is False?

- (a) Phytochemicals are nutrients necessary for sustaining health and life
- (b) Phytochemicals protect plants from insects and microbes
- (c) Phytochemicals have been shown to reduce the risk of cardiovascular disease and cataracts
- (d) Phytochemicals are naturally occurring compounds found in plants

4. Phytochemicals are found in the greatest concentration in which of the following foods?

- (a) Meat
- (b) Alcohol
- (c) Dairy
- (d) Fruits and Vegetables

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5. Hallucinogen derived from ergot
 - (a) THC
 - (b) ETO
 - (c) EDTA
 - (d) LSD
6. From which part of Ephedra the drug ephedrine is obtained?
 - (a) root
 - (b) stem
 - (c) leaves
 - (d) flowers
7. Select the does not belong to tannin class.
 - (a) Colophony
 - (b) Guar gum
 - (c) Acacia
 - (d) Agar
8. Tannins give colour with iron compound
 - (a) Pale yellow
 - (b) Blue black
 - (c) Light pink
 - (d) Orange

9. Gum-resin are made up of
 - (a) Gums and resins
 - (b) Gums, hard resins and fatty oils
 - (c) Gums, mucilage and oleoresins
 - (d) Gums, latex and oleoresins
10. The bark of one of the following plants is rich in tannins
 - (a) *Anogeissus latifolia*
 - (b) *Terminalia arjuna*
 - (c) *Castanea dentata*
 - (d)* *Terminalia chebula*

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Describe about hot continuous extraction method.
Or
(b) Write notes on aqueous extraction.
12. (a) How will you classify secondary metabolites?
Or
(b) Write notes on phytomedicines.



13. (a) Explain about alkaloids.

Or

(b) Comment on flavones.

14. (a) What are the natural sources of glycosides?

Or

(b) Comment on glycyrrhizin.

15. (a) Write notes on constituents and properties of clove oil.

Or

(b) List out the sources and properties of vetiver oil.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Give an account on preparation of plant extracts for phytochemical separation.

Or

(b) What are the parameters selected for plant extraction method?

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17. (a) What are the methods used for separation of plant constituents?

Or

(b) How will you isolate chemical constituents?

18. (a) What are the properties of flavonoids?

Or

(b) Give an account on serpentine.

19. (a) How will you classify glycosides?

Or

(b) Give an account toxicological effect of glycosides.

20. (a) Write detailed notes on medicinal uses of resins.

Or

(b) Discuss on volatile oils and its significance.

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