

Enrollment No.....



## Faculty of Pharmacy

End Sem (Even) Examination May-2022

PY3CO17 Pharmacognosy &amp; Phytochemistry -I

Programme: B. Pharma

Branch/Specialisation: Pharmacy

**Duration: 3 Hrs.**

**Maximum Marks: 75**

Note: All questions are compulsory. Internal choices, if any, are indicated.

- |     |      |   |   |
|-----|------|---|---|
| Q.1 | i.   | Dried latex of the drug is used in preparation, except:   | 2 |
|     |      | (a) Opium (b) Gatta parcha  |   |
|     |      | (c) Papain (d) Balsam   |   |
|     | ii.  | Drug not belonging to volatile oil class:   | 2 |
|     |      | (a) Peppermint (b) Clove  |   |
|     |      | (c) Castor oil (d) Garlic   |   |
|     | iii. | Which of following is not the function of gibberellins?   | 2 |
|     |      | (a) Stimulate cell elongation in stem   |   |
|     |      | (b) Promote senescence in leaves  |   |
|     |      | (c) Parthenocarpic fruit development  |   |
|     |      | (d) Stimulates bolting/flowering in response to long days   |   |
|     | iv.  | Step of preparation of crude drug in which sand, dirt, and foreign organic matter from crude drug are removed is called as- | 2 |
|     |      | (a) Dibbling (b) Sophistication   |   |
|     |      | (c) Layering (d) Garbling   |   |
|     | v.   | Through plant tissue culture growing the cell, tissue and organ in culture medium is called.....                            | 2 |
|     |      | (a) Totipotency   |   |
|     |      | (b) Stored food   |   |
|     |      | (c) Inter specific hybridization  |   |
|     |      | (d) Dormancy  |   |
|     | vi.  | Which of the following is the main application of embryo culture?   | 2 |
|     |      | (a) Clonal propagation  |   |
|     |      | (b) Production of embryoids   |   |
|     |      | (c) Induction of somaclonal variation   |   |
|     |      | (d) Overcoming hybridization barriers   |   |

P.T.O.

[2]

- vii. "Like can be treated by like" is the fundamental principle of..... **2**  
 (a) Homeopathy system of medicine  
 (b) Ayurveda system of medicine  
 (c) Chinese system of medicine  
 (d) Unani system of medicine
- viii. Which of the following does not take part in the biosynthesis of terpenes? **2**  
 (a) Mevalonic acid (b) Methylerythritol phosphate  
 (c) Acetyl- COA (d) Phenol
- ix. Cotton consists of .....cellulose. **2**  
 (a) 10% (b) 40% (c) 70% (d) 90%
- x. Name the coenzyme of riboflavin (B2)? **2**  
 (a) NAD and NADP (b) FAD and FMN  
 (c) Coenzyme A (d) Thiamine pyrophosphate

Q.2

Attempt any two:

- i. Briefly explain various types of adulterations. **10**
- ii. Describe conservation methods used for medicinal plants. **10**
- iii. (a) What is quantitative microscopy of crude drugs? **5**  
 (b) The role of ethylene and abscisic acid is both positive and negative. Justify the statement. **5**

Q.3

Attempt any seven: Two questions from each section is compulsory.

#### Section - A

- i. What is an explant? What types of explants are used in plant tissue culture? **5**
- ii. Describe the components of nutrient media used in plant tissue culture. **5**
- iii. How plant growth regulators affect the plant morphogenesis? **5**

#### Section - B

- iv. Write an exhaustive note on growth of Indian traditional medicines. **5**
- v. What is alkaloid? Classify of alkaloids with suitable examples. **5**
- vi. Describe identification tests for alkaloids, glycosides and flavonoids. **5**

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#### Section - C

- vii. Write an exhaustive note on medicinal agents from marine sources. **5**
- viii. Explain various natural pharmaceutical aids for manufacture of dosage forms. **5**
- ix. Define enzyme. Describe types and pharmaceutical importance of enzymes. **5**

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**Marking Scheme**  
**PY3CO17 Pharmacognosy & Phytochemistry -I**

- Q.1
- |       |   |   |
|-------|---|---|
| i.    | Dried latex of the drug is used in preparation, except:<br>(d) Balsam   | 2 |
| ii.   | Drug not belonging to volatile oil class:<br>(c) Castor oil   | 2 |
| iii.  | Which of following is not the function of gibberellins?<br>(d) Stimulates bolting/flowering in response to long days                        | 2 |
| iv.   | Step of preparation of crude drug in which sand, dirt, and foreign organic matter from crude drug are removed is called as-<br>(d) Garbling | 2 |
| v.    | Through plant tissue culture growing the cell, tissue and organ in culture medium is called.....<br>(a) Totipotency                         | 2 |
| vi.   | Which of the following is the main application of embryo culture?<br>(a) Clonal propagation   | 2 |
| vii.  | “Like can be treated by like” is the fundamental principle of.....<br>(a) Homeopathy system of medicine                                     | 2 |
| viii. | Which of the following does not take part in the biosynthesis of terpenes?<br>(d) Phenol  | 2 |
| ix.   | Cotton consists of .....cellulose.<br>(d) 90%   | 2 |
| x.    | Name the coenzyme of riboflavin (B2)?<br>(b) FAD and FMN  | 2 |

- Q.2
- |                  |                             |               |
|------------------|-----------------------------|---------------|
| Attempt any two: |                             |               |
| i.               | Definition of Adulterations | 2 marks       |
|                  | Any 4 types (2 marks * 4)   | 8 marks       |
| ii.              | Any 5 methods               | (2 marks * 5) |
| iii.             | (a) Definition              | 1 mark        |
|                  | Methods                     | 4 mark        |
|                  | (b) Positive Role           | 2 marks       |
|                  | Negative Role               | 2 marks       |
|                  | Definition                  | 1 mark        |

Q.3 Attempt any seven: Two questions from each section is compulsory.

Section - A

- |      |                               |              |          |
|------|-------------------------------|--------------|----------|
| i.   | Definition of Explant         | 1 mark       | <b>5</b> |
|      | Any types of with explanation | 4 marks      |          |
| ii.  | Any 5 components with uses    | (1 mark * 5) | <b>5</b> |
| iii. | Definition                    | 1 mark       | <b>5</b> |
|      | Description                   | 4 marks      |          |

Section - B

- |     |  |         |          |
|-----|--|---------|----------|
| iv. | Definition of Indian traditional medicines | 1 mark  | <b>5</b> |
|     | Types                                      | 2 marks |          |
|     | Growth                                     | 2 marks |          |
| v.  | Definition of alkaloid                     | 2 mark  | <b>5</b> |
|     | Classification                             | 3 marks |          |
| vi. | Name and Description of test               |         | <b>5</b> |
|     | alkaloids                                  | 2 marks |          |
|     | glycosides                                 | 2 marks |          |
|     | flavonoids                                 | 1 marks |          |

Section - C

- |       |                              |               |          |
|-------|------------------------------|---------------|----------|
| vii.  | Definition                   | 1 marks       | <b>5</b> |
|       | Any 4 examples (1 marks * 4) | 4 marks       |          |
| viii. | Any 5 examples               | (1 marks * 5) | <b>5</b> |
| ix.   | Definition of enzyme         | 1 mark        | <b>5</b> |
|       | Types                        | 3 marks       |          |
|       | Importance                   | 1 marks       |          |

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