## End Semester Examinations June/July 2023

Programme: M. Pharm. (Pharmacognosy)

Session: 2022-23

Semester: 2<sup>nd</sup>

Max. Time: 3 Hours

Course Title: Medicinal Plant Biotechnology

Max. Marks: 75

Course Code: MPG 201T

### **Instructions:**

1. Question no. 1 has Seven parts and students are required to attempt any five. Each part carries three Marks.

- 2. Question no. 2 to 5 have three parts and students are required to attempt any two parts of each question. Each part carries seven and half marks.
- 1. a) What are non-sense codons? Give example.
  - b) How histone proteins are involved in the genome organization?
  - c) Define synthetic seed and its applications.
  - d) Write notes on disadvantages of plant cell cloning.
  - e) Write the different methods used in gene identification and sequencing.
  - f) What are transgenic plants? Give their applications.
  - g) What are Single-cell proteins? Discuss its significance in brief.

(5X3=15)

- 2. a) Describe briefly prospects for development of plant biotechnology as a source of Medicinal agents. Highlight its applications in pharmacy.
  - b) Discuss the gene regulation process in eukaryotes in detail.
  - c) Write a short note on paracrine cell signaling. Discuss the principle and application of DNA recombinant technology. (2X7.5=15)
- 3. a) Discuss different tissue culture techniques.
  - b) Discuss organogenesis and embryogenesis.
  - c) Describe sterilization methods involved in tissue culture techniques.

(2X7.5=15)

- 4. a) Write in detail about the Immobilization technique of plant cell and its application on secondary metabolites production.
  - b) Discuss the different methods of Plant cell cloning and its applications.
  - c) Describe the precursors and elicitors on production of secondary metabolite.

(2X7.5=15)

- 5. a) Write down the applications of PCR in plant genome analysis.
  - b) Discuss Enzymes of pharmaceutical interest. Write a note on substrates suitable for SCP production.
  - c) Discuss the production of Ergot alkaloids in detail.

(2X7.5=15)

AND THE RESIDENCE OF THE PERSON OF THE PERSO

\*

## Term End Examinations June/July 2023

Programme:

M.Pharma.

Session: 2022-23

Semester:

2<sup>nd</sup> Semester

Max. Time: 3 Hours

Course Title: Pharmacovigilance

Max. Marks: 70

Course Code: SIAS PS 02 02 01 E 4004

#### Instructions:

- 1. Question no. 1 has seven parts and students are required to answer any four. Each part carries three and half Marks.
- 2. Question no. 2 to 5 have three parts and students are required to answer any two parts of each question. Each part carries seven marks.

Q 1.

(4X3.5=14)

- a) Define the following terms: (i) Adverse event (ii) Signal.
- b) In 1961, a big change of European Pharmacovigilance happened following the tragedy of Thalidomide. Justify the statement.
- c) Write a note on "The National Pharmacovigilance Programme".
- d) Describe The Pharmacovigilance Programme of India (PvPI) in brief.
- e) Write down the functions of WHO International Drug Monitoring Program.
- f) Briefly describe about Stimulated reporting of ADR.
- g) Discuss the future aspects of pharmacovigilance in India

Q 2.

(2X7=14)

- a) Describe the objectives of Pharmacovigilance Programme of India (PvPI).
- b) Explain system and procedure for adverse drug reporting in PvPI.
- c) Classify and briefly explain the different types of ADR.

O3.

 $\cdot (2X7=14)$ 

- a) What are the basic steps required in setting up a Pharmacovigilance Centre?
- b) Discuss the evaluation of medication safety in preclinical and clinical trials.
- c) Explain the vision, mission, short term goals and long term goals of PvPI.

O 4.

(2X7=14)

- a) Discuss various software used in Pharmacovigilance.
- b) Describe various passive surveillance pharmacovigilance methods used to report ADR.
- c) Write a note on Vaccine safety surveillance.

Q 5.

(2X7=14)

- a) Discuss International Non Proprietary Names for Drugs (INN) and International classification of diseases.
- b) Write notes on the following: (i) Argus (ii) Aris G Pharmacovigilance (iii) VigiFlow.
- c) Discuss about the statistical evaluation of drug safety data.

## Term End Examinations June/July 2023

Programme: M. Pharm. (Pharmacognosy)

Session: 2022-23

Semester: 2<sup>nd</sup> Semester Max. Time: 3 Hours

Course Title: Indian Systems of Medicine Max. Marks: 75

Course Code: MPG 203T

## **Instructions:**

1. Question no. 1 has seven parts and students are required to answer any five. Each part carries three Marks.

- 2. Question no. 2 to 5 have three parts and students are required to answer any two parts of each question. Each part carries seven and half marks.
- Q 1. Write short notes on the followings:

(5X3=15)

- a) Ayurvedic Pharmacopoeia.
- b) Carrier oils for aromatherapy.
- c) Principles of Homeopathy system of medicines.
- d) Quality assurance in ISM formulation.
- e) Geographical indication Bill.
- f) Purification process (Suddhi) in Siddha system of medicine.
- g) Central Council for Research in Unani (CCRU).

Q 2. (2X7.5=15)

- a) Define Ayurveda and explain the different dosage forms used in Ayurvedic system of Medicine.
- b) Describe Gunapadam and raw drugs in Siddha System of Medicine.
- c) Discuss an overview of Traditional Knowledge Digital Library (TKDL).

Q 3. (2X7.5=15)

- a) Describe the basic principles and treatment of modalities of Naturopathy System of Medicine.
- b) Discuss about the different Meditations and Relaxation techniques of Yoga.
- c) What is aromatherapy? Give details of aroma oils used for common problems.

Q 4. (2X7.5=15)

- a) Explain the Shelf life and Stability studies of Indian System of Medicine (ISM) formulations.
- b) Describe the techniques of preparation and standardization of any two formulations as per Unani Pharmacopoeia.
- c) Discuss in detail about the Government bills in AYUSH.

Q 5. (2X7.5=15)

a) Discuss in detail on Good Manufacturing Practice of Indian Systems of Medicine as per Schedule-T.

- b) Elaborate on preparation of documents for new drug applications and export registration of Indian Systems of Medicine.
- c) Discuss the challenges in monitoring the safety of herbal medicines.

# Term End Examinations June/July 2023

Programme: M. Pharm. (Pharmacognosy)

Session: 2022-23

Semester: 2<sup>nd</sup> Semester Max. Time: 3 Hours

Course Title: Herbal Cosmetics Max. Marks: 75

Course Code: MPG 204T

## **Instructions:**

1. Question no. 1 has seven parts and students are required to answer any five. Each part carries three Marks.

- 2. Question no. 2 to 5 have three parts and students are required to answer any two parts of each question. Each part carries seven and half marks.
- Q 1. Write short notes on the followings:

(5X3=15)

- a) Classification of herbal cosmetics.
- b) Preformulation studies.
- c) Herbal soaps with examples.
- d) Preparations of Anti-Sun burn cream.
- e) Toxicity screening.
- f) GMP for herbal cosmetics preparation.
- g) Preservatives used in herbal cosmetics.

Q 2. (2X7.5=15)

- a) Describe the regulatory provision relation to manufacture cosmetics and import & export of herbal cosmetics.
- b) Discuss on the Indian Industries involved in the production of herbal cosmetics.
- c) Enlist the quality control of herbal cosmetics as per Drugs and Cosmetics Act.

Q 3. (2X7.5=15)

- a) Discuss in detail about the design of herbal cosmetics formulation.
- b) Define compatibility studies and explain the interactions between chemicals and herbs.
- c) Write in detail about the toxicity studies as per Drugs and Cosmetics Act.

Q 4. (2X7.5=15)

- a) Describe the physiology and chemistry of the skin.
- b) Explain the preparation of any two herbal tooth pastes.
- c) Discuss the formulation and standardization of herbal mouthwash.

Q 5. (2X7.5=15)

- a) Discuss in detail on herbal hair growth formulations.
- b) Elaborate on hair colorants and hair oils of natural origin.
- c) Explain in detail about the herbal vanishing and foundation creams.

Commence of the Commence of th

the second of the party of the second of the

End Semester Examinations June 2023

Programme: M. Pharm. (Pharmacognosy)

Semester: 2<sup>nd</sup>

Course Title: Advanced Pharmacognosy-II

Course Code: MPG 202T

Session: 2022-23 Max. Time: 3 Hours Max. Marks: 75

## **Instructions:**

- 1. Question no. 1 has Seven parts and students are required to attempt any five. Each part carries three Marks.
- 2. Question no. 2 to 5 have three parts and students are required to attempt any two parts of each question. Each part carries seven and half marks.
- 1. a) Define the term Herbal Remedies.
  - b) What is meant by *Phyto-Pharmacological Screening*?
  - c) Differentiate between Herbal and Conventional drugs. Give suitable examples.
  - d) What are OECD guidelines?
  - e) Briefly define Phytotoxin. Give suitable examples
  - f) What do you understand by the term "Phytochemical fingerprinting".
  - g) Define the terms Ethnobotany and Ethnopharmacology.

(5X3=15)

- 2. a) Discuss the Toxicity and Regulations of Herbal Remedies.
  - b) Discuss the Efficacies of herbal medicinal products.
  - c) Elaborate the Validation of herbal therapies.

(2X7.5=15)

- 3. a) What is Drug adulteration? Discuss types of drug adulteration.
  - b) Discuss the causes and measures of drug adulteration.
  - c) Elaborate DNA Fingerprinting techniques and their applications.

(2X7.5=15)

- 4. a) Discuss the role of Ethnobotany in herbal drug evaluation.
  - b) Describe the analytical profile of Curcuma longa.
  - c) Discuss the Bio-prospecting tools for drug discovery.

(2X7.5=15)

- 5. a) Discuss new strategies for evaluating Natural products.
  - b) Discuss In vitro evaluation techniques for Antioxidants and anticancer drugs.
  - c) Discuss In vivo evaluation techniques for Antidiabetic and Hepatorotective drugs.

(2X7.5=15)