

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : February-2023

Dravyaguna – II (Ayurvedic Pharmacology)

Date: 14-02-2023
Tuesday

Time: 09:30 A.M. to 12:30 P.M.
Marks: 100

- Instructions: 1. Every question is compulsory.
2. Every question bears the marks written on the right side.

SECTION-A

1. Discuss *Ghrita Varga* in detail. 10
2. Answer any one out of two questions. 10
 - A. Explain *Bhavprakash Nighantu* in detail.
 - B. Discuss time period, author, classification and specialty of *Kaideva Nighantu*.
3. Write a short note on any **Four** of the following : 20
 - A. Discuss in brief about *Vichitrapratyarabdha*.
 - B. Explain basis of Nomenclature according to *Raj Nighantu*.
 - C. *Mutrasangrahnaya* and *Mutraviranjaniya*.
 - D. *Taila varga*.
 - E. *Snehana* and *Snehopaga*.
4. Answer any **Five** of the following : (two to three sentences) 10
 - A. Define *Rukshana*.
 - B. Examples of *Takra varga dravyas*.
 - C. *Vednasthapana*.
 - D. *Prapidana*.
 - E. Define *Samanpratyarabdha*.
 - F. *Trushnanigrahana*.

SECTION-B

5. Describe *Panchatikta* and *Panchamruta* in detail. 10
6. Answer any one out of two questions. 10
 - A. Explain importance of *Gudduchi* with its detail description.
 - B. Write botanical name, family, habit & habitat, part used and used of *Chandandwayam*.
7. Write a short note on any **Four** of the following : 20
 - A. *Khadira*.
 - B. *Lavana Panchaka*.
 - C. Discuss in brief about *Methika*.
 - D. *Yamaktrivruta*.
 - E. *Chaturbhadra*.
8. Answer any **Five** of the following : (Write botanical name, family, part used and single main action.) 10
 - A. *Krutavedhana*
 - B. *Latakasturi*
 - C. *Bijapoor*
 - D. *Sarshapa*
 - E. *Patalgarudi*
 - F. *Karvellaka*

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : February-2023

Rasashastra & Bhaishajya Kalpana – III (Ayurvedic Pharmaceutics)

Date: 13-02-2023
Monday

Time: 09:30 A.M. to 12:30 P.M.
Marks: 100

- Instructions: 1. Every question is compulsory.
2. Every question bears the marks written on the right side.

SECTION-A

1. Explain an example of Masi Kalpana in detail. 10
2. Answer any one out of **Two** questions. 10
 - A Describe an example of Sneha Kalpana.
 - B Describe Apamarga Kshara in detail.
3. Write short notes on any **Four** of the following : 20
 - A. Pratisaraniya Kshara.
 - B. Explain 'Sadhyet na ek vasare ... ' in Sneha Kalpana.
 - C. Saptmusti Yusha.
 - D. Murchana in Sneha Kalpana.
 - E. Gulab Arka.
4. Answer any **Five** of the following : 10
 - A. Ingredients and colour of Pinda taila.
 - B. Give example of Mrudupaka and Kharpaka Sneha Kalpana.
 - C. Dose and use of Paniya Kshara.
 - D. In which vessel should Arka be collected?
 - E. Which Lavan should be taken in Arka.lavan?
 - F. Storage of Lavan kalpana.

SECTION-B

5. Name the Sadharan rasa dravya and describe anyone. 10
6. Answer any one out of **Two** questions. 10
 - A Define Visha and explain Vatsnabha.
 - B Write about Kupillu in detail.
7. Write short notes on any **Four** of the following : 20
 - A. Jaypal.
 - B. Describe a formulation of gandhak.
 - C. Kasis.
 - D. Makardwaja.
 - E. Gairika.
8. Answer any **Five** of the following : 10
 - A. Antidote of gauripashan.
 - B. State the colour of Rasasindura and Rasapuspa.
 - C. Part used of Kampillaka and Bhallataka.
 - D. Pottali paka Pariksha.
 - E. Give two synonyms of each of Bhallataka and Gairika.
 - F. Pathyapthya of Gandhak.

Pharmacognosy of Ayurvedic Drugs – II

Date: 15-02-2023
Wednesday

Time: 09:30 A.M. to 12:30 P.M.
Marks: 100

- Instructions: 1. Every question is compulsory.
2. Every question bears the marks written on the right side.

SECTION-A

1. Discuss history of pharmacopoeia and explain European pharmacopoeia in detail. 10
2. Answer any one out of **Two** questions. 10
- A What is the current scenario of substitute and adulterant in Ayurvedic drugs?
- OR**
- B Give a detail account on coumarin glycoside and describe one plant containing them.
3. Write short notes on any **Four** of the following : 20
- A. Enzymatic hydrolysis is recommended in case of cynogenetic glycoside
- B. Ayurvedic pharmacopoeia.
- C. Give classification of glycoside based on their linkage.
- D. Discuss the 3-stage process of hydrolysis of amygdalin.
- E. Details of two marine drugs used as anti-inflammatory
4. Answer any **Five** of the following :(two to three sentences) 10
- A. What is S-glycoside ?
- B. Importance of flavonoids
- C. Give biological source, family and uses of Aragvadha
- D. Give chemical constituents and therapeutic usage of Atasi
- E. Give biological source, family and uses of Kalmegh
- F. Give chemical constituents and therapeutic usage of Shatavari.

SECTION-B

5. What are tannins ? Name bark drugs of tannin and give a detail account of any one bark drug containing them. 10
6. Answer any one out of **Two** questions. 10
- A Discuss drugs containing pseudo alkaloids in detail.
- OR**
- B Write a review on fixed oil and fat. Discuss various extracting methods of fixed oils.
7. Write short notes on any **Four** of the following : 20
- A. Occurrence and distribution of alkaloids in plants
- B. Goldbeater's test
- C. Condensed tannin
- D. Discuss on proto-alkaloids
- E. Properties of fixed oil
8. Answer any **Five** of the following :(two to three sentences) 10
- A. Define drying oil
- B. Chemical constituents and therapeutic usage of Sarpagandha
- C. Define non-drying oil
- D. Chemical constituents and therapeutic usage of Punarnava
- E. Biological source, family and uses of Sthauneyaka
- F. Chemical constituents and therapeutic usage of Vatsanabh

Pharmacology & Toxicology of Ayurvedic Drugs -I

Date: 16-02-2023
Thursday

Time: 09:30 A.M. to 11:30 P.M.
Marks: 100

- Instructions: 1. Every question is compulsory.
2. Every question bears the marks written on the right side.

SECTION-A

1. Define Drug. Describe various nature and sources of Drugs. 10
2. Answer any **One** of the following : 10
 - A Enlist various factors affecting Drug absorption and its Bioavailability. Discuss Patient related factors in detail.
 - B Explain trans-cutaneous and trans-mucosal routes of Drug administration.
3. Write short notes on any **Four** of the following : 20
 - A. Renal elimination of drugs.
 - B. Plasma protein binding of drugs.
 - C. Oxidation and Reduction reactions of drug metabolism.
 - D. Types of Allergic reactions.
 - E. Enzyme linked receptors.
4. Answer any **Five** of the following : 10
 - A. Define: Drug (WHO).
 - B. Drugs metabolized by Methylation.
 - C. Pharmacy.
 - D. Accumulation.
 - E. Enzyme induction.
 - F. Synergism.

SECTION-B

5. Explain Cholinergic transmission. Classify Cholinergic drugs and discuss mechanism action of Anti-cholinesterase. 10
6. Answer any **One** of the following : 10
 - A Classification of Anti-parkinson's drugs. Explain mechanism of action of any two classes of drugs.
 - B Classify drugs used in the treatment of Peptic ulcer and write mechanism of action of any two classes of drugs.
7. Write short notes on any **Four** of the following : 20
 - A. Anti-anxiety drugs.
 - B. Digestants.
 - C. Ayurvedic drugs used in Depression.
 - D. Adrenergic receptors.
 - E. Laxatives and Purgatives.
8. Answer any **Five** of the following : 10
 - A. Ayurvedic drugs used in the treatment of Vomiting.
 - B. Types of Sleep.
 - C. Name of α -blockers.
 - D. Write name of Antipsychotic drugs.
 - E. Emetics.
 - F. Ayurvedic drugs used in the treatment of Epilepsy.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : February-2023

Pharmaceutical Technology of Ayurvedic Drugs -I

Date: 17-02-2023
Friday

Time: 09:30 A.M. to 12:30 P.M.
Marks: 100

- Instructions: 1. Every question is compulsory.
2. Every question bears the marks written on the right side.

SECTION-A

1. What are different powder dosage forms in Ayurveda ? Explain problems arising during the preparation of powders. 10
2. Answer any **One** out of two questions. 10
 - A. What is the emulsion? Discuss their merits and demerits in details?
 - B. What are liquid dosage forms? Explain in detail?
3. Write a short note on any **Four** of the following : 20
 - A. Types of suspension and their manufacturing procedures.
 - B. Emulsifying agents
 - C. Write a short note on Additives.
 - D. Advantages of Powder dosage form in detail.
 - E. What is lotion? Write a brief note on it.
4. Answer any **Five** of the following : (two to three sentences) 10
 - A. Gargles.
 - B. Ingredients of effervescent granules.
 - C. Preservatives
 - D. Disintegrating agents
 - E. Eutectic mixture
 - F. Throat paints.

SECTION-B

5. What are aerosols? Classify them. Explain their container system. 10
6. Answer any **One** out of two questions. 10
 - A. Discuss general formulation and bases for semisolid preparations?
 - B. What is Polymorphism in context to suppositories? Explain.
7. Write a short note on any **Four** of the following : 20
 - A. Ointment bases in brief.
 - B. Ideal requirements for suppositories
 - C. Different types of creams
 - D. Describe the importance of propellants in aerosols.
 - E. Vanishing cream in brief.
8. Answer any **Five** of the following : (two to three sentences) 10
 - A. Disadvantages of suppositories.
 - B. Difference between cream and ointment.
 - C. Limitations of aerosols.
 - D. What is cocoa butter?
 - E. Role of actuator.
 - F. Use of Bougies.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : February-2023

Pharmaceutical Analysis of Ayurvedic Drugs - II

Date: 20-02-2023
Monday

Time: 09:30 A.M. to 12:30 P.M.
Marks: 100

- Instructions: 1. Every question is compulsory.
2. Every question bears the marks written on the right side.

SECTION-A

1. Enumerate practical requirements for TLC and discuss the criteria to select the mobile phase for TLC and write advantages of TLC. 10
2. Answer any one out of two questions. 10
 - A. What is the difference between classical column chromatography and H.P.L.C.? Describe the various column preparation methods in detail.
 - B. Discuss instrumentation of Paper chromatography in detail.
3. Write a short note on any **Four** of the following : 20
 - A. Enumerate types of detectors used in GC and discuss its ideal characteristics.
 - B. Enumerate types of gases used in G.C. with their selection criteria.
 - C. Discuss different types of chambers used in HPTLC.
 - D. Enumerate 10 Spray reagents used in T.L.C.
 - E. Discuss different types of columns used in GC.
4. Answer any **Five** of the following : (two to three sentences) 10
 - A. Define: Guard column
 - B. Define: Chromatograph.
 - C. What is S.C.O.T. column?
 - D. Ninydrin spray is used for?
 - E. NP-HPLC
 - F. Refractive index.

SECTION-B

5. Write the principle and instrumentation of Turbidimetry with diagram. 10
6. Answer any one out of two questions. 10
 - A. Give an account of Flame Emission spectroscopy.
 - B. Explain principles and instrumentations of Refractometry.
7. Write a short note on any **Four** of the following : 20
 - A. Applications of U.V.Spectroscopy.
 - B. Describe Conditions to get I.R.Spectra.
 - C. What is E.M.R.? Explain spectroscopy in brief.
 - D. Different types of vibrations in I.R.Spectroscopy.
 - E. Explain instrumentation of Nephelometer in brief.
8. Answer any **Five** of the following : (two to three sentences) 10
 - A. Bathochromic Shift.
 - B. Hypsochromic shift.
 - C. Source of U.V. radiation.
 - D. Difference between cuvettes used in U.V. and visible spectroscopy.
 - E. Enumerate different Monochromators.
 - F. Amplitude.

Pharmaceutical Engineering

Date: 21-02-2023
Tuesday

Time: 09:30 A.M. to 12:30 P.M.
Marks: 100

- Instructions: 1. Every question is compulsory.
2. Every question bears the marks written on the right side.

SECTION-A

1. Discuss factors affecting selection of extraction process ? 10
2. Answer any one out of **Two** questions. 10
 - A Explain in detail silverson emulsifiers ?
 - B Define size reduction & discuss various methods in detail ?
3. Write short notes on any **Four** of the following : 20
 - A. Colloidal mill.
 - B. Maceration & Percolation.
 - C. Positive mixture.
 - D. Ultrasonic emulsifiers.
 - E. Twin shell mixture.
4. Answer any **Five** of the following : 10
 - A. Difference between size reduction & Size Separation
 - B. Standards of powder.
 - C. Define leaching & Extraction
 - D. Define emulsifiers.
 - E. Objective of size reduction.
 - F. Principle of silverson emulsifier.

SECTION-B

5. Discuss in detail fluidized bed dryer ? 10
6. Answer any one out of **Two** questions. 10
 - A Discuss in detail distillation equipments ?
 - B Define crystallization & describe Mier's theory in detail.
7. Write short notes on any **Four** of the following : 20
 - A. Tray dryer.
 - B. Tank crystallizer.
 - C. Distillation under reduced process.
 - D. Evaporation equipments.
 - E. Working principle of freeze drying.
8. Answer any **Five** of the following : 10
 - A. Define Magma.
 - B. Define evaporation.
 - C. Application of evaporating pan.
 - D. Principle of Microwave.
 - E. Define Crystals.
 - F. Define distillation & Condensation.
