

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : November - 2015

Pharmaceutical Technology of Ayurvedic Drugs -I

Date: 01-12-2015
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. Define and classify suspension. What are suspending agents and what is their role in suspension. Discuss the evaluation parameters of suspension. 10
2. Answer any **one** out of two questions. 10
 - A. Enumerate liquid dosage forms. How will you prepare a formulation with in diffusible solids giving examples.
 - B. What are additives ? List out the additives with their role in tablet, granules, emulsion, suspension, oils and syrup.
3. Answer any **Four** out of five questions : 20
 - A. Draw HLB scale.
 - B. What are the ideal requirements to manufacture eye drops ?
 - C. What are the advantages of suspension ?
 - D. Differentiate flocculated and deflocculated suspension system.
 - E. What are the test for identification of emulsion ?
4. Answer any **Five** out of six questions : 10
 - A. What are emulsifying agents ?
 - B. What are liniment ?
 - C. Differentiate Draught and Gargles.
 - D. Packing and labelling instructions for syrups.
 - E. Eutectic mixtures.
 - F. Classification of emulsion.

SECTION-B

5. What are Aerosols ? Why and which propellants are used in Aerosols ? Describe the manufacturing process and evaluation parameters for Aerosols. 10
6. Write any **one** out of two questions : 10
 - A. Define cosmetics as per D & C Act.. Give 10 examples of herbs that are playing a vital role in cosmetic industry with their uses.
 - B. What are semi solid products ? What are the requirements of ideal base for a cold cream. Differentiate creams and ointments.
7. Answer any **Four** out of questions : 20
 - A. Propellants in Aerosols.
 - B. Polymorph firm in Cocoa butter.
 - C. List out the components of an aerosol container.
 - D. Preparation of herbal anti ache cream with example.
 - E. Preparation of Herbal dentifrice.
8. Answer any **Five** of six questions : 10
 - A. Limitation of aerosol.
 - B. What are manicure preparations ?
 - C. Advantages of suppositories.
 - D. Shaving preparations.
 - E. What are Gels ?
 - F. Evaluating parameters of suppositories.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : November - 2015

Pharmacology & Toxicology of Ayurvedic Drugs -I

Date: 02-12-2015
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. What is bio availability. Describe factors affecting absorption and bioavailability of a drug. 10
2. Answer any **one** out of two questions. 10
 - A. Define pharmacokinetics. Describe how drug is eliminated from the body.
 - B. Drug antagonism.
3. Write a short note on any **Four** of the following : 20
 - A. Receptors regulating gene expression.
 - B. Carcinogenicity.
 - C. Transdermal drug delivery system.
 - D. Plasma protein binding of the drug.
 - E. Drug tolerance.
4. Answer any **Five** of the following : 10
 - A. What is Pharmacy ?
 - B. Carrier transport.
 - C. Prodrug.
 - D. First pass metabolism.
 - E. Pharmacogenetics.
 - F. Plasma half life.

SECTION-B

5. Classify cholinergic receptors. Name drugs which act on these receptors. 10
6. Answer any **one** out of two questions. 10
 - A. Classify antiemetics drugs. Write mechanism of action of metoclopramide.
 - B. Classify Sedative hypnotic drugs. Write mechanism of action of diazepam.
7. Write a short note on any **Four** of the following : 20
 - A. Ayurvedic laxative drugs.
 - B. Antiparkinsonian drugs.
 - C. Appetizers.
 - D. Ayurvedic drugs for depression.
 - E. Emetics.
8. Answer any **Five** of the following : 10
 - A. Name two carminatives.
 - B. Write name of two selective β , blockers.
 - C. Name two drugs act on α receptors.
 - D. Digestants.
 - E. Write name of two antipsychotic drugs.
 - F. Anti ulcer drugs.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : November - 2015

Ayurvediya Aushadha Gunadharma Shastra – III

Date: 30-11-2015
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. Enlist the poisonous drugs with its toxicity and purification methods. 10
2. Answer any one out of two questions. 10
 - A. Describe the concept of Vichitrapratyabdhā and its application.
 - B. Write the steps to resolved controversy of drug with example.
3. Write a short note on any **Four** of the following : 20
 - A. Mutra Virajaniya.
 - B. Purisha Sangrahaniya.
 - C. Saumansya Janana.
 - D. Vamanopaga.
 - E. Shorivirechana.
4. Answer any **Five** of the following : 10
 - A. Enlist any two source plant for Priyangu with its botanical name.
 - B. Enlist any two source plant for Pashanabheda with its botanical name.
 - C. Enlist any two source plant for Rasana with its botanical name.
 - D. Write the name of different types of Chandana with its botanical name.
 - E. Write the name of different types of Dhattura with its botanical name.
 - F. Write the name of different types of Patha with its botanical name.

SECTION-B

5. Describe in brief the drug "Bala" by mentioning classification(Charak), botanical name, types, Rasapanchaka, Doshakarma, formulations and indications. 10
6. Answer any one out of two questions. 10
 - A. Describe the properties, actions and indications of Mukta and Shankha.
 - B. Write the origin, types and chemical composition of Kshara.
7. Write a short note on any **Four** of the following : 20
 - A. Navaneeta Varga.
 - B. Takra Varga.
 - C. Sadharana Rasa.
 - D. Astagandha.
 - E. Chhagapanchaka.
8. Answer any **Five** of the following : 10
 - A. Write the botanical name and family Sarja.
 - B. Write the Rasapanchaka of Vatsanabha.
 - C. Write the part used and formulation of Shatapushpa.
 - D. Write the synonyms and Doshakarma of Kushmand.
 - E. Write the chemical composition and substitute of Chandana.
 - F. Write the action and indication of Atmagupta.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : November - 2015

Pharmacognosy of Ayurvedic Drugs – II

Date: 03-12-2015

Thursday

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 distribution of alkaloid in plants and mention the chemical tests to detect them. 10
2. Answer any one out of two questions. 10
 - A. What are lipids ? Discuss expression methods in detail.
 - B. Discuss gender affecting the quality of crude drugs.
3. Write a short note on any **Four** of the following : 20
 - A. Substitutes and adulterants of Daruharidra.
 - B. Role of Alkaloid in plant.
 - C. Differentiate volatile oil and fixed oil.
 - D. Discuss decolourization, deodorization and demargination.
 - E. Plant growth inhibitors and regulators.
4. Answer any **Five** of the following : 10
 - A. Solutions to prepare dragendorff's reagent.
 - B. Give biological source, chemical constituents and uses of Parsikayavani.
 - C. White pepper.
 - D. Give chemical constituents and uses of Nimba.
 - E. Define TRO.
 - F. Allelopathy.

SECTION-B

5. What is volatile oil ? Discuss its distillation methods in detail with suitable examples. 10
6. Answer any one out of two questions. 10
 - A. Explain why galls are the pathological products of the plant. Give a detail account on Karkatshringi.
 - B. What do you mean by substitutes and adulterants ? Explain chemical and pharmacological evolution of crude drugs with suitable examples.
7. Write a short note on any **Four** of the following : 20
 - A. Hydrolysable tannin.
 - B. Explain Gambier is pale brown while cutch is black in colour.
 - C. Discuss isolation technique of vittae and lactiferous vessels.
 - D. Ecuelle & effleurage.
 - E. Differentiate Terminalia Arjuna wight. and Terminalia tomentosa wight.
8. Answer any **Five** of the following : 10
 - A. Explain Match stick test.
 - B. Give biological source, chemical constituents and uses of pale catechu.
 - C. Adulterants of Ashoka & mention it's biological source family.
 - D. Give chemical tests of volatile oils.
 - E. Give biological source, chemical constituents and uses of Talishapatra.
 - F. Give botanical source of any six umbelliferous fruits.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : November - 2015

Pharmaceutical Engineering

Date: 04-12-2015
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. Explain energy requirements of size reduction process and explain colloid mill. 10
2. Answer any one out of two questions. 10
 - A. Explain in detail elutriation.
 - B. Explain construction, working advantages and disadvantages of propeller mixer.
3. Write a short note on any **Four** of the following : 20
 - A. Homogenizer as emulsifier.
 - B. Cyclone separator.
 - C. Sigma blade mixer.
 - D. Factors affecting on extraction process.
 - E. Propeller mixer.
4. Answer any **Five** of the following : 10
 - A. Define infusion.
 - B. Solvents used for extraction.
 - C. Write objectives of mixing size separation.
 - D. Advantages of ball mill.
 - E. Application of planetary mixer.
 - F. Define leaching.

SECTION-B

5. Define evaporation. Explain factors affecting the process of evaporation. 10
6. Answer any one out of two questions. 10
 - A. What is the importance of crystals in pharmaceutical field ? Explain it.
 - B. Explain lab scale molecular distillation.
7. Write a short note on any **Four** of the following : 20
 - A. Microwave dryer.
 - B. Equilibrium distillation.
 - C. Distillation under reduced pressure.
 - D. Vacuum crystallizer.
 - E. Steam distillation.
8. Answer any **Five** of the following : 10
 - A. Define molecular distillation.
 - B. Limitations of mier's super saturation theory.
 - C. Advantages of spray dryer.
 - D. Define magma.
 - E. Advantages of rectification.
 - F. Pharmaceutical factors affecting process of evaporation.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : November - 2015

Ayurvediya Aushadha Nirmana Shastra - III

Date: 05-12-2015
Saturday

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 is Pathya ? Write brief note on Pathya Kalpana and its importance in Ayurveda. 10
2. Answer any one out of two questions. 10
 - A. Give difference between Kshara and Lavana. Mention different types of Lavana and its importance.
 - B. Write brief note on Masi Kalpana and its analytical parameters.
3. Answer any Four out of five questions : 20
 - A. Saindhava Lavana.
 - B. Hastidanta Masi.
 - C. Kacha Lavana.
 - D. Apamarga Kshara.
 - E. Arka Lavana.
4. Answer any Five out of six questions : 10
 - A. Ksharajala.
 - B. Bid Lavana.
 - C. Kshara Panchaka.
 - D. Sauvarchal Lavana.
 - E. Sneha Matra.
 - F. Use of Triphala Masi.

SECTION-B

5. What is Jarana ? Explain Shadaguna bali jarita Parada. 10
6. Write any one out of two questions : 10
 - A. Write brief note on any two Uparasa.
 - B. Mention dosha of Parada and write their Shodhana methods.
7. Answer any Four out of questions : 20
 - A. Shodhana method of Gandhaka.
 - B. Preparation of Kasisa Bhasma.
 - C. Vahnijara.
 - D. Rasa Manikya.
 - E. Parada Vikara and its management.
8. Answer any Five of six questions : 10
 - A. Therapeutic dose and formulations of Jayapala.
 - B. Toxicity and antidote of Vatsanabha.
 - C. Formulations of Kalihari.
 - D. Shodhana dravya and a formulation of Arka Kshira.
 - E. Ingredients and use of Switrari Rasa.
 - F. Name of Ashta Samskara of Parada:

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : November - 2015

Pharmaceutical Chemistry – II

Date: 07-12-2015
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. Discuss detectors in gas chromatography with diagram. 10
2. Answer any **one** out of two questions. 10
 - A. Discuss instrumental up gradation available in thin layer chromatography.
 - B. Explain the principal of column chromatography.
3. Write a short note on any **Four** of the following : 20
 - A. Types of injectors in H.P.L.C.
 - B. Explain elution techniques in column chromatography.
 - C. Applications of T.L.C. in detail.
 - D. Different development techniques in paper chromatography.
 - E. Describe types of chambers and chamber saturation in H.P.T.L.C.
4. Answer any **Five** of the following : 10
 - A. Rt value.
 - B. Derivatization.
 - C. Types of Ion exchange resin.
 - D. Enumerate different types of visualization techniques in T.L.C.
 - E. Define chromatograph.
 - F. Enumerate detectors used in H.P.L.C.

SECTION-B

5. Differentiate between atomic absorption and atomic emission spectroscopy. Explain the flame photometry and its instrumentation in detail. 10
6. Answer any one out of two questions. 10
 - A. What is E.M.R. ? Explain the instrumentation of U.V. spectroscopy in detail.
 - B. What is pH ? Enumerate different types of electrodes used in pH metry. Write down its applications.
7. Write a short note on any **Four** of the following : 20
 - A. Different types of vibrations in IR spectroscopy.
 - B. Explain T.G.A., D.T.A. and D.S.C. in brief.
 - C. Applications of fluorimetry and phosphorimetry.
 - D. Applications of Ion-exchange chromatography.
 - E. Abbes refractometer.
8. Answer any **Five** of the following : 10
 - A. Hollow Cathode Lamp.
 - B. Blue shift.
 - C. Enumerate sources of I.R. radiation.
 - D. Wavelength.
 - E. Frequency.
 - F. P.M.T.