

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : April - 2016 (NEW SYLLABUS)

Dravyaguna – II (Ayurvedic Pharmacology)

Date: 18-04-2016
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. Describe the mode of action of Pramathi and Truptighna Dravya with examples. 10
2. Answer any one out of two questions. 10
 - A. Write the introduction, author, period and speciality of Dhanvantari Nighantu.
 - B. Describe in detail the Sandhana Varga with its therapeutic importance.
3. Write a short note on any Four of the following : 20
 - A. Samanpratyarabdhya.
 - B. Madanpala Nighantu.
 - C. Dugdha Varga.
 - D. Phala Varga.
 - E. Dadhi Varga.
4. Answer any Five out of six questions : 10
 - A. Sandhaniya.
 - B. Artava Janana.
 - C. Satnya Janana.
 - D. Asthapanopaga.
 - E. Synonyms.
 - F. Mutra Sangrahaniya.

SECTION-B

5. Define Mishraka Varga, describe in detail Panchapallava with its therapeutic importance. 10
6. Write any one out of two questions : 10
 - A. Write the Basonym, synonyms, botanical name, family, part used, pharmacological action and therapeutic use of Sariva.
 - B. Write the ingredients and collective action of Ashtavarga with mode of action.
7. Write a short note on any Four of the following : 20
 - A. Lavana Panchaka.
 - B. Panchamahavisha.
 - C. Madhurtraya.
 - D. Swalpatriphla.
 - E. Mahasneha.
8. Answer any Five of six questions : Write Botanical name, family, main action and veerya of - 10
 - A. Mashaparni.
 - B. Snuhi.
 - C. Tivaraka.
 - D. Parnabeeja.
 - E. Kalonji.
 - F. Karvellaka.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : April - 2016 (NEW SYLLABUS)

Pharmaceutical Technology of Ayurvedic Drugs -I

Date: 19-04-2016
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. 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 are syrups ? Explain its formulation and method of preparation in detail.
 - B. What are emulsions ? Give their classification. How will you prepare emulsion of castor oil.
3. Write a short note on any **Four** of the following : 20
 - A. Write short note on additives.
 - B. Define – Lotions. Write a brief note on lotions.
 - C. Types of suspension and their manufacturing procedure.
 - D. Advantages of powders in detail.
 - E. HLB scale.
4. Answer any **Five** out of six questions : 10
 - A. Name any two evaluation test for emulsion.
 - B. Ingredients of effervescent Granules.
 - C. Gargles.
 - D. Throat paint.
 - E. Name two preservatives for external preparations.
 - F. Eutetic mixture.

SECTION-B

5. What are aerosols ? Classify them. Explain their container system. 10
6. Write any **one** out of two questions : 10
 - A. Define ointment. Describe method of preparation. Enlist ointment bases and explain any one of them.
 - B. Describe different methods of preparing suppositories.
7. Write a short note on any **Four** of the following : 20
 - A. What are the ideal characteristic of lipstick ? Is it hazardous to use lipstick ? Explain.
 - B. Discuss evaluation. Procedure for suppositories.
 - C. Semi solid dosage form.
 - D. Packaging methods of aerosols.
 - E. Differentiate between gels and jellies.
8. Answer any **Five** of six questions : 10
 - A. Electuaries.
 - B. Define – poultice.
 - C. Limitations of suppositories.
 - D. Cold cream formulae.
 - E. Use of dusting powder.
 - F. Polymorphism.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : April - 2016 (NEW SYLLABUS)

Pharmacology & Toxicology of Ayurvedic Drugs -I

Date: 21-04-2016
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. Enumerate different routes for drug administration. Describe methods and demerits of oral route. 10
2. Answer any one out of two questions. 10
 - A. What is bioavailability? Describe factors affecting bioavailability of a drug.
 - B. What is drug antagonism? Explain with examples.
3. Write a short note on any **Four** of the following : 20
 - A. G-protein coupled receptors.
 - B. Biotransformation.
 - C. Drug synergism.
 - D. Tolerance.
 - E. Kinetics of drug elimination.
4. Answer any **Five** of the following : 10
 - A. Define drug.
 - B. Define clinical pharmacology.
 - C. What is pharmacy?
 - D. Teratogenicity.
 - E. Placebo.
 - F. Passive diffusion.

SECTION-B

5. Classify adrenergic drugs. Write briefly about adrenergic receptors. 10
6. Answer any one out of two questions. 10
 - A. Classify antiemetic drugs. Write mechanism of action of prokinetic drugs.
 - B. Classify laxatives. Write mechanism of action of osmotic purgatives.
7. Write a short note on any **Four** of the following : 20
 - A. Ayurvedic drugs – as carminatives.
 - B. α -blockers.
 - C. Appetisers.
 - D. Anticholinergics.
 - E. Sedatives.
8. Answer any **Five** of the following : 10
 - A. Write four antiepileptic drugs.
 - B. Write mechanism of action of levodopa.
 - C. Write two drugs which decrease gastric acid secretion.
 - D. Antipsychotics - write two names.
 - E. Name adrenergic receptor present on heart and name one blocker of it.
 - F. Name two Ayurvedic drugs used as digestants.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : April - 2016 (NEW SYLLABUS)

Pharmacognosy of Ayurvedic Drugs – II

Date: 22-04-2016
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 is Glycoside ? Discuss in detail. Write a note on drugs containing cardiac glycosides. 10
2. Answer any one out of two questions. 10
 - A. Define substitutes and adulterants with suitable examples & discuss the method followed to confirm its authenticity.
 - B. Enumerate API, BP, IP and the criteria for standardized of drug in detail.
3. Write a short note on any Four of the following : 20
 - A. Discuss different types of sugar and its role in glycosides.
 - B. Give Borntrager's test in detail.
 - C. Give a note on cape and curcao aloe.
 - D. Discuss the different types of fractures of bark.
 - E. What are marine toxins ? Discuss in detail.
4. Answer any Five of the following : 10
 - A. Give structural formulae of α -glycosides.
 - B. What is Emil Fischer method?
 - C. Name enzyme present in digitalis.
 - D. Define Crystals.
 - E. Give biological source, chemical constituents and uses of Atasi.
 - F. Give biological source, chemical constituents and uses of Kalmegha.

SECTION-B

5. Name the types of Alkaloids arranged in the manner of an increasing nucleus ring with detail discussion. 10
6. Answer any one out of two questions. 10
 - A. Explain lipid in detail. Classify them and give its various physic-chemical parameters.
 - B. Write a detail account on Madhuchchhishta.
7. Write a short note on any Four of the following : 20
 - A. What are deodorization and demargination.
 - B. Differentiate Terminalia arjuna weight. and Terminalia tomentosa weight.
 - C. Give different tests used to detect tannin.
 - D. What is Rhytidoma ?
 - E. History of Alkaloid.
8. Answer any Five of the following : 10
 - A. Name the tissues found in seeds.
 - B. What is Dragendorff's reagent ?
 - C. What is red pepper ?
 - D. Give biological source, chemical constituents and uses of Atmagupta.
 - E. Give biological source, chemical constituents and uses of Langali.
 - F. Name at least two market patent formulations of Sarpagandha.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : April - 2016 (NEW SYLLABUS)

Pharmaceutical Engineering

Date: 23-04-2016
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. Define size reduction. Discuss principle, construction, working and application of ball mill. 10
2. Answer any one out of two questions. 10
 - A. Define extraction. Explain industrial methods of extraction.
 - B. Explain principle construction, working and application of gyratory methods.
3. Write a short note on any **Four** of the following : 20
 - A. Sedimentation tank.
 - B. Planetary mixer.
 - C. Ultrasonic emulsifier.
 - D. Maceration.
 - E. Sieving technology.
4. Answer any **Five** of the following : 10
 - A. Define infusion.
 - B. Preparation method of liquorice IP.
 - C. What is double cone mixer ?
 - D. Uses of cutler mill.
 - E. Standards for sieving.
 - F. Applications of hammer mill.

SECTION-B

5. Discuss mechanism of drying rate of dryer. Explain fluidized bed dryer. 10
6. Answer any one out of two questions. 10
 - A. Explain principle, construction, working and application of Swenson Walker crystallizer.
 - B. Enlist factors affecting on evaporation classify the evaporator. Discuss evaporating still.
7. Write a short note on any **Four** of the following : 20
 - A. Multiple effect evaporator.
 - B. Vacuum crystallizer.
 - C. Freeze drying.
 - D. Simple distillation.
 - E. Rotary evaporator.
8. Answer any **Five** of the following : 10
 - A. Disadvantages of tank crystallizer.
 - B. Advantages of steam distillation.
 - C. Application of tunnel dryer.
 - D. Define molecular distillation.
 - E. Draw a neat diagram of evaporating pan.
 - F. Application of distillation under reduced pressure.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : April - 2016 (NEW SYLLABUS)

Rasashastra & Bhaishajya Kalpana – III (Ayurvedic Pharmaceutics)

Date: 25-04-2016
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. Give detailed description of Snehapaka. 10
2. Answer any one out of two questions. 10
 - A. Write difference between Kshara and Lavana.
 - B. Takra Kalpana.
3. Write a short note on any **Four** of the following : 20
 - A. Apamarga Kshara.
 - B. Difference between Manda and Peya.
 - C. Sneha Siddhi Lakshana.
 - D. Taila Murchchhana.
 - E. Pinda Taila.
4. Answer any **Five** of the following : 10
 - A. Ksharadvaya.
 - B. Use of Triphala Masi and its dose.
 - C. Dose and indication of Kadali Kshara.
 - D. Lavanadvaya.
 - E. Two examples of Suryapaka Sneha.
 - F. Shelf-life of medicated Ghrita and taila.

SECTION-B

5. What is Sindura ? Write short note on Rasa Sindura. 10
6. Answer any one out of two questions. 10
 - A. Preparation of Pottali.
 - B. Describe of any one Uparasa Dravya.
7. Write a short note on any **Four** of the following : 20
 - A. Importance of Parada Murchchhana.
 - B. Rasamanikya.
 - C. Marana of Haratala.
 - D. Hingula.
 - E. Parada Bhasma.
8. Answer any **Five** of the following : 10
 - A. Synonyms and types of Manashila.
 - B. Toxicity and antidote of Ahiphena.
 - C. Shodhana and dose of Gairika.
 - D. Antidote and Yoga of Bhallataka.
 - E. Dose and antidote of Kankshi.
 - F. Dose and indications of Gandhaka Druti.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : April - 2016 (NEW SYLLABUS)

Pharmaceutical Analysis of Ayurvedic Drugs - II

Date: 26-04-2016

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

Tuesday

Marks: 100

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

SECTION-A

1. Define chromatography. Explain the principle of thin layer chromatography. Explain the separation of a mixture of components in Churna by TLC. 10
2. Answer any one out of two questions. 10
 - A. Explain the principle and working of gas-chromatography with diagram. What are its ideal characteristics of detectors ?
 - B. What is HPLC ? Explain its principle and instrumentation with diagram.
3. Answer any **Four** out of five questions : 20
 - A. Why guard columns are used in HPLC ?
 - B. Non destructive detection techniques in chromatography.
 - C. Different types of paper chromatography in brief.
 - D. Explain sample application by instrument in HPTLC.
 - E. Different types of preparation of TLC plates.
4. Answer any **Five** out of six questions : 10
 - A. Rf value.
 - B. Edge effect.
 - C. Two spray reagents with its detecting class of chemicals.
 - D. Enumerate types of column preparation.
 - E. Define chromatogram.
 - F. Enumerate Ion-exchange resins.

SECTION-B

5. What is flame emission spectroscopy ? Explain its instrumentation with diagram in detail. 10
6. Write any **one** out of two questions : 10
 - A. Explain different types of vibration in IR spectroscopy. Explain the instrumentation of infra red spectrophotometer.
 - B. What is refractometry ? Explain its principle and working of instrument with diagram.
7. Answer any **Four** out of five questions : 20
 - A. Monochromators in U.V. spectroscopy.
 - B. Different burners used in flame photometry.
 - C. Applications of nephelo and turbidimetry.
 - D. Applications of thermo analytical methods.
 - E. Application of X-ray diffraction.
8. Answer any **Five** of six questions : 10
 - A. Nernst Glover.
 - B. Red Shift.
 - C. What is D.S.C. ?
 - D. Amplitude.
 - E. Enumerate elements detected by flame photometry.
 - F. Phosphorescence.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : April - 2016 (OLD SYLLABUS)

Ayurvediya Aushadha Gunadharm Shastra – III

Date: 18-04-2016
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. Describe about Samanyapratyabdhata and Vichitrapratyabdhata in detail with few examples. 10
2. Answer any one out of two questions. 10
 - A. Describe the method of collection and preservation (GCP).
 - B. Explain the purification method for at least five poisonous plants.
3. Write a short note on any Four of the following : 20
 - A. Snehopaga.
 - B. Shukrashodhana.
 - C. Shramahara.
 - D. Yogavahi.
 - E. Kandughna.
4. Answer any Five of the following : 10
 - A. Enlist any two source plant for Jivanti with its botanical name.
 - B. Enlist any two source plant for Amlavetas with its botanical name.
 - C. Enlist any two source plant for Kaknasa with its botanical name.
 - D. Write the name of different types of Kumari with its botanical name.
 - E. Write the name of different types of Karanja with its botanical name.
 - F. Write the name of different types of Kushmanda with its botanical name.

SECTION-B

5. Describe in brief the drug "Apamarga" 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 Shambooka.
 - B. Write the origin, types and chemical compositions of Lavana.
7. Write a short note on any Four of the following : 20
 - A. Dadhi Varga.
 - B. Ghruta Varga.
 - C. Uparasa.
 - D. Sapta Upavisha.
 - E. Pancha Mahavisha.
8. Answer any Five of the following : 10
 - A. Write the botanical name and family of Gunja.
 - B. Write the Rasapanchaka of Palasha.
 - C. Enlist the part used and formulation of Devadaru.
 - D. Write the synonyms and Doshakarma of Kirat tikta.
 - E. Write the chemical compositions and substitute of Akarkarabha.
 - F. Write the action and indication of Lajjalu.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : April - 2016 (OLD SYLLABUS)

Pharmaceutical Technology of Ayurvedic Drugs -I

Date: 19-04-2016
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 emulsion with its classification and advantages, disadvantages. What are the test for identification of emulsion ? 10
2. Answer any **one** out of two questions. 10
 - A. What is a suspension ? Differentiate flocculated and deflocculated suspension ? What are the evaluation parameters and labelling instructions ?
 - B. What are additives ? Enumerate different additives with their role in tablet, granules, emulsion, suspension, syrup and oils.
3. Answer any **Four** out of five questions : 20
 - A. What are effervescent granules and what is it's mode of action ?
 - B. What are the advantages and limitations of powder dosage form ?
 - C. Describe the theory of suspension.
 - D. What are the requirements of an ophthalmic product manufacturing ?
 - E. Draw HLB scale.
4. Answer any **Five** out of six questions : 10
 - A. What are liniments ?
 - B. How will you preserve Ear drops ?
 - C. Differentiate liniments and lotions.
 - D. Mouthwash and it's uses.
 - E. How will you formulate a eutectic mixture ?
 - F. What are preservatives, give examples ?

SECTION-B

5. What are suppositories ? What parameter should be fulfilled by an ideal suppository base ? Highlight the evaluation techniques, packaging and labelling instruction for end user of suppositories. 10
6. Write any **one** out of two questions : 10
 - A. What are aerosols ? Which propellants are used to formulate on aerosol and why ? Describe the evaluation techniques of Aerosols.
 - B. Define cosmetics as per D & C Act. Give 10 examples of herbs that are playing a vital role across the cosmetic industry and their uses.
7. Answer any **Four** out of questions : 20
 - A. Preparation of Ayurvedic Shampoo with example.
 - B. Why propellant are used in Aerosols ?
 - C. Give the names of components of an Aerosol container from tip to toe.
 - D. What is Polymorphism in Cocoa butter ?
 - E. Preparation of Herbal hair dye.
8. Answer any **Five** of six questions : 10
 - A. Pharmaceutical applications of aerosol.
 - B. Drawbacks of suppositories.
 - C. Shaving preparations.
 - D. What are dentifrices.
 - E. Differentiate cream and ointments.
 - F. What is poultice and what are its uses ?

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : April - 2016 (OLD SYLLABUS)

Pharmacology & Toxicology of Ayurvedic Drugs -I

Date: 21-04-2016
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. Enumerate factors which can modify drug effects. Discuss in detail about age factor. 10
2. Answer any **One** out of two questions. 10
 - A. Enumerate different routes of drug administration. Describe disadvantages of intra venous route.
 - B. Drug metabolism.
3. Write a short note on any **Four** of the following : 20
 - A. G-protein coupled receptors.
 - B. Teratogenicity.
 - C. Plasma protein binding of drugs.
 - D. Bio availability.
 - E. Synergism.
4. Answer any **Five** of the following : 10
 - A. Define Drug.
 - B. What is pharmacokinetics ?
 - C. Passive diffusion.
 - D. Name four drugs obtained from plants.
 - E. Plasma half-life.
 - F. Zero order kinetics of drug elimination.

SECTION-B

5. Classify adrenergic receptors and name drugs which can stimulate this receptors. 10
6. Answer any **One** out of two questions. 10
 - A. Classify antiepileptic drugs. Write mechanism of phenytoin sodium.
 - B. Name proton pump inhibitors, write their mechanism of action.
7. Write a short note on any **Four** of the following : 20
 - A. Carminatives.
 - B. Beta blockers.
 - C. Ayurvedic drugs used for anxiety.
 - D. Laxatives.
 - E. Cholinomimetic drugs.
8. Answer any **Five** of the following : 10
 - A. Name two appetizers.
 - B. Name two alpha blockers.
 - C. Emetics.
 - D. Mechanism of action of Levo dopa.
 - E. Write name of two antidepressants.
 - F. How chlorpromazine acts ?

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : April - 2016 (OLD SYLLABUS)

Pharmacognosy of Ayurvedic Drugs – II

Date: 22-04-2016
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. Define seed. Give detail morphological and microscopical information of Kupilu with its chemical constituents. 10
2. Answer any one out of two questions. 10
 - A. What are the fixed oils and fats ? Give qualitative and quantitative methods to detect them.
 - B. Discuss the exogenous factors affecting quality of crude drugs.
3. Write a short note on any **Four** of the following : 20
 - A. What is Rasanjana ? How it is prepared ?
 - B. Adulterants of Madhuchhista.
 - C. Tests for Alkaloids.
 - D. Extraction and isolation of alkaloids.
 - E. Discuss cold extraction.
4. Answer any **Five** of the following : 10
 - A. Give biological source, chemical constituents and uses of Chalmugra.
 - B. What is Nushter ?
 - C. Recemization.
 - D. Define drying and semidrying oil.
 - E. Name two drugs with its botanical name containing indole alkaloids.
 - F. Give biological source, chemical constituents and uses of Jyotismati.

SECTION-B

5. Give an account on distribution and occurrence on volatile oil. Discuss the diagnosis characters and uses of umbelliferous fruits. 10
6. Answer any one out of two questions. 10
 - A. Define bark. Give botanical name, chemical constituents and uses of any four drugs containing tannin.
 - B. Discuss the role of calcium oxalate and carbonate crystals in identification of crude drugs with suitable examples.
7. Write a short note on any **Four** of the following : 20
 - A. Explain Cinnamomum zeylanium blume.
 - B. Discuss isolation method of xylem elements.
 - C. Steam distillation is not applicable for extraction of delicate flowers.
 - D. Discuss various fractures surfaces of bark.
 - E. Differentiate Sweta and Krishna Jeeraka.
8. Answer any **Five** of the following : 10
 - A. Pseudo Tannin.
 - B. Goldbeater's skin test.
 - C. Give biological source, chemical constituents and uses of Karkatshringi.
 - D. How drugs are evaluated ?
 - E. Give at least six names of family containing volatile oil.
 - F. Give botanical source, chemical constituents and uses of Javantri.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : April - 2016 (OLD SYLLABUS)

Pharmaceutical Engineering

Date: 23-04-2016
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. Explain construction, working, advantages and disadvantages of ball mill. 10
2. Answer any one out of two questions. 10
 - A. Explain the sedimentation tank in detail.
 - B. Enlist method of size separation and explain one method.
3. Write a short note on any **Four** of the following : 20
 - A. Silverson emulsifier.
 - B. Twine shell mixer.
 - C. Standards for powders.
 - D. Types of mixing.
 - E. Methods of extraction.
4. Answer any **Five** of the following : 10
 - A. Define maceration.
 - B. What is size reduction ?
 - C. Explain application of hamour mill.
 - D. Define menstrum.
 - E. Define mixing.
 - F. Ideal solvent.

SECTION-B

5. What is crystallization ? Explain construction, working of Swenson walker crystallizer. 10
6. Answer any one out of two questions. 10
 - A. Define drying. Explain principal, working, advantages and disadvantages of Tray dryer.
 - B. Explain in detail azotropic distillation.
7. Write a short note on any **Four** of the following : 20
 - A. Explain distillation under reduced pressure.
 - B. Explain construction, working of application of evaporating.
 - C. Enumerate factors affecting crying.
 - D. Mier's theory.
 - E. Spray drying.
8. Answer any **Five** of the following : 10
 - A. Principle of film evaporator .
 - B. Why steam distillation is useful ?
 - C. Principles of rotary evaporator.
 - D. Give principle of freeze drying.
 - E. Define magma.
 - F. What is difference between rectification distillation and azotropic distillation ?

GUJARAT AYURVED UNIVERSITY, JAMNAGAR.

B. Pharm(Ayu.) Third Year Examination : April - 2016 (OLD SYLLABUS)

Ayurvediya Aushadha Nirmana Shastra - III

Date: 25-04-2016
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. What is Sneha ? Write brief note on Snehapaka and its importance. 10
2. Answer any one out of two questions. 10
 - A. Write importance of Kshara. Describe preparatory method of Apamarga Kshara.
 - B. Describe Lavana Panchaka.
3. Answer any **Four** out of five questions : 20
 - A. Audbhida Lavana.
 - B. Snehapaka Kala.
 - C. Narikela Lavana.
 - D. Triphala Masi.
 - E. Type of Kshara.
4. Answer any **Five** out of six questions : 10
 - A. Mrudupaka Sneha Lakshana.
 - B. Shelf life of Siddha Sneha.
 - C. Use of Arka Lavana.
 - D. Sambhara Lavana.
 - E. Two examples of Suryapaki Sneha.
 - F. Two examples of Mineral Taila.

SECTION-B

5. What are Uparasa ? Describe Gandhaka in detail. 10
6. Write any **one** out of two questions : 10
 - A. What is Parada Murchchhana ? Give brief note on Kajjali.
 - B. Describe Parada Vikara and its management.
7. Answer any **Four** out of questions : 20
 - A. Navasadara.
 - B. Gandhaka Druti.
 - C. Kampillaka.
 - D. Rasa Karpoora.
 - E. Parpati Paka.
8. Answer any **Five** of six questions : 10
 - A. Toxicity of Somala and its antidote.
 - B. Formulation and dose of Hartala.
 - C. Shodhana dravya and antidote of Manahshila.
 - D. Sadharana Rasa Dravya.
 - E. Shodhana dravya and antidote of Gunja.
 - F. Dose and indications of Vatsanabha.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Third Year Examination : April - 2016 (OLD SYLLABUS)

Pharmaceutical Chemistry – II

Date: 26-04-2016.
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. Explain the principle of thin layer chromatography. Explain the separation of a mixture of components in Churna by T.L.C. 10
2. Answer any **one** out of two questions. 10
 - A. Define chromatography. Explain the principle and working of gas-chromatography with diagram.
 - B. What is H.P.L.C. ? Explain its principle and instrumentation with diagram.
3. Write a short note on any **Four** of the following : 20
 - A. Why guard columns are used in H.P.L.C. ?
 - B. Non-destructive detection techniques in chromatography.
 - C. Different types of paper chromatography in brief.
 - D. Explain sample application by instrument in H.P.T.L.C.
 - E. Different types of preparation of T.L.C. plates.
4. Answer any **Five** of the following : 10
 - A. Rf value.
 - B. Edge effect.
 - C. Two spray reagents with its detecting class of chemicals.
 - D. Enumerate types of column preparation.
 - E. Define chromatogram.
 - F. Enumerate natural Ion-exchange resins.

SECTION-B

5. What is atomic absorption spectroscopy ? Explain its instrumentation with diagram in detail. 10
6. Answer any one out of two questions. 10
 - A. Explain different types of vibrations in IR spectroscopy. Explain its instrumentation of infra-red spectrophotometer.
 - B. What is refractometry ? Explain its principal & working of instrument with diagram.
7. Write a short note on any **Four** of the following : 20
 - A. Monochromators in UV spectroscopy.
 - B. Different burners used in flame photometry.
 - C. Applications of nephelo and turbidimetry.
 - D. Applications of thermo analytical methods.
 - E. Applications of X-ray diffraction.
8. Answer any **Five** of the following : 10
 - A. Hollow cathode lamp.
 - B. Red shift.
 - C. Half wave potential.
 - D. Amplitude.
 - E. Enumerate elements detected by flame photometry.
 - F. Phosphorescence.