

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

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

Ayurvediya Aushadha Gunadharma Shastra – III

Date: 07-05-2015  
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. Write a brief note on preservation and storage of drug and explain concept of Saviryata Avadghi with example. 10
2. Answer any one out of two questions. 10
  - A. Explain factor responsible for controversy and steps to resolve it.
  - B. Give list of poisonous drugs and toxicity found with their appropriate management.
3. Write a short note on any Four of the following : 20
  - A. Shothahara.
  - B. Sheet Prashaman.
  - C. Purish Virechaniy.
  - D. Trushna Nigrahan.
  - E. Aasthapanopaga.
4. Answer any Five of the following : 10
  - A. Enlist any two source plant for Parpataka with its Botanical name.
  - B. Enlist any two source plant for Murva with its Botanical name
  - C. Enlist any two source plant for Rasna with its Botanical name
  - D. Write the name of different types of Bala – atleast two with its Botanical name.
  - E. Write the name of different types of Shankhapushpi 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 Manjistha by mentioning Botanical name, family, synonyms, Botanical description, Dosha Karma, part used and formulation. 10
6. Write a short note on any one of the following : 10
  - A. Write chemical composition, properties and Grahyagrabyatva of Sadharan Rasa.
  - B. Mention the properties of different Dugdha.
7. Write a short note on any Four of the following : 20
  - A. Panchamrut.
  - B. Ksharpanchak.
  - C. Navneet Varga.
  - D. Panchagavya.
  - E. Taila Varga.
8. Answer any Five of the following : 10
  - A. Botanical name and family of Madanphala.
  - B. Rasapanchak of Dhanyak.
  - C. Part used and formmulation of Chandan.
  - D. Synonyms and Dosha Karma of Jyotishmati.
  - E. Chemical composition and substitute of Kumkum.
  - F. Action and indication of Katuki.

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GUJARAT AYURVED UNIVERSITY, JAMNAGAR

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

Pharmaceutical Technology of Ayurvedic Drugs -I

Date: 08-05-2015  
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. Define and classify suspension. What are suspending agents and what is their role in suspension formulation. Highlight the labelling instruction for suspension. 10
2. Answer any one out of two questions. 10
  - A. What are additives. Enumerate different additives with their function in emulsion, suspension, tablet, oil, syrups granules.
  - B. Discuss the powder dosage form elaborately. What are different granulation techniques? What are effervescent granules, give one example?
3. Answer any Four out of five questions : 20
  - A. How will you evaluate an ophthalmic product as per IPI4?
  - B. What are antioxidants? How they could be useful in oil preparation?
  - C. What are test for identification of emulsions?
  - D. Draw HLB scale.
  - E. What are the advantages of liquid dosage form?
4. Answer any Five out of six questions : 10
  - A. Packing and labelling instructions for oral liquid preparations.
  - B. What are emulsifying agents?
  - C. Give a simple formula for effervescent granules.
  - D. Differentiate draught and gargles.
  - E. Classification of emulsion.
  - F. Packing and labelling instructions for powder and granules.

SECTION-B

5. What are aerosols? Why propellants are used in formulating an aerosol? Describe the manufacturing and packing methods of aerosols. 10
6. Write any one out of two questions : 10
  - A. Define a semisolid product. Highlight the different type of bases used in a semisolid product. Differentiate cream and ointment.
  - B. What are the ideal requirements for suppository. Which type of base is used in formulating it and how a suppository is evaluated?
7. Answer any Four out of questions : 20
  - A. Preparation of cold cream with example.
  - B. How will you evaluate a semi solid product?
  - C. What is Polymorphism in cocoa butter?
  - D. Which propellants are used in Aerosols?
  - E. Define the term cosmetics as per D & C Act.?
8. Answer any Five of six questions : 10
  - A. What are gels and jellies?
  - B. Pharmaceutical applications of Aerosol.
  - C. Define Poultice and its applications.
  - D. What are Manicure preparations?
  - E. Limitations of suppositories.
  - F. Ayurvedic shampoo formulae.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

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

Pharmacology & Toxicology of Ayurvedic Drugs -I

Date: 09-05-2015  
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. Enumerate parental routes. Write their advantages. 10
2. Answer any one out of two questions. 10
- A. Define Pharmacodynamics. Write in detail about G-protein coupler receptors.
- B. Drug synergism.
3. Write a short note on any Four of the following : 20
- A. Bio availability.
- B. Passive diffusion.
- C. Adverse drug reaction.
- D. Drug dependence.
- E. Enzyme induction.
4. Answer any Five of the following : 10
- A. Define Pharmacology.
- B. Pharmacovigilance.
- C. Sources of drugs.
- D. Plasma half life and its importance.
- E. Define Pharmacy.
- F. Kinetics of elimination.

SECTION-B

5. Classify anti ulcer drugs. Write mechanism of action of proton pump inhibitors. 10
6. Answer any one out of two questions. 10
- A. Discuss briefly about main neurotransmitters of autonomic nervous system.
- B. Classify laxatives, write mechanism of action of bulk laxatives.
7. Write a short note on any Four of the following : 20
- A. Anti emetic drugs.
- B.  $\alpha$  - blockers.
- C. Carminatives.
- D. Anti epileptic drugs.
- E. Ayurvedic drugs used as sedative hypnotic
8. Answer any Five of the following : 10
- A. Write four names of  $\beta$  - blockers.
- B. Two ayurvedic drugs used for diarrhoea.
- C. What is generalized tonic clonic seizures
- D. Ayurvedic drugs as appetizers.
- E. Levodopa - mechanism of action.
- F. Write name of two antidepressant drugs.

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GUJARAT AYURVED UNIVERSITY, JAMNAGAR

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

**Pharmacognosy of Ayurvedic Drugs – II**

Date: 11-05-2015  
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. Describe Alkaloids. Discuss one seed drug in detail containing them. 10
2. Answer any one out of two questions. 10
  - A. Discuss various methods for evaluation of fixed oils.
  - B. Describe factors affecting quality of crude drugs.
3. Write a short note on any **Four** of the following : 20
  - A. Formation and distribution of Alkaloids in plants.
  - B. Classification of fixed oil.
  - C. Mutation and polyploidy.
  - D. Different varieties of pepper.
  - E. Extraction method of Tila Taila.
4. Answer any **Five** of the following : 10
  - A. Give biological source, chemical constituents and uses of Arkapatri.
  - B. Precautions to preserve and store alkaloids.
  - C. Give two adulterants of Bee's wax and its tests to detect them.
  - D. Define TRO.
  - E. Racemization.
  - F. Uses of morphine and Papavarine.

**SECTION-B**

5. How volatile oils are classified ? Discuss in detail with suitable examples. 10
6. Answer any one out of two questions. 10
  - A. Define Tannin. How they are classified ? Mention its chemical tests.
  - B. Discuss morphological and microscopical evaluation with suitable examples.
7. Write a short note on any **Four** of the following : 20
  - A. Rectification of volatile oil.
  - B. Adulterants of clove.
  - C. Condense tannin.
  - D. What is Panchavalkala ? Discuss its importance in Ayurveda.
  - E. Explain why umbelliferous fruits are always collected from cultivated plants ?
8. Answer any **Five** of the following : 10
  - A. Explain matchstick test.
  - B. Medicinal properties of Tannin.
  - C. Give botanical source, chemical constituents and uses of Karkatshringi.
  - D. Give various secretive organs of plant in which volatile oil is located.
  - E. Chemical tests for strychnine and brucine.
  - F. Define wood and mention its two types.

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GUJARAT AYURVED UNIVERSITY, JAMNAGAR

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

**Pharmaceutical Engineering**

Date: 12-05-2015  
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. Discuss objectives, factor affecting and application of size reduction in pharmacy. 10
2. Answer any one out of two questions. 10
  - A. Define size separation, discuss mechanism of cyclone separator.
  - B. Explain ball mill in detail.
3. Write a short note on any **Four** of the following : 20
  - A. Ultrasonic emulsifier.
  - B. Maceration.
  - C. Q.P. emulsifier.
  - D. Types of mixing.
  - E. Sieves.
4. Answer any **Five** of the following : 10
  - A. Prepare method of Vasaka liquid extract I.P.
  - B. What is positive mixing ?
  - C. Define size reduction.
  - D. Standards for sieves.
  - E. Write advantages of colloidal mill.
  - F. What is double cone mixer ?

**SECTION-B**

5. Define drying, discuss factors affecting selection of drying equipments. 10
6. Answer any one out of two questions. 10
  - A. Discuss the Mier's theory of super saturation.
  - B. Explain in detail rotary evaporator.
7. Write a short note on any **Four** of the following : 20
  - A. Principle & construction Swenson walker crystallizer.
  - B. Tunnel dryers.
  - C. Steam distillation.
  - D. Evaporating still.
  - E. Write factors affecting selection of dryer.
8. Answer any **Five** of the following : 10
  - A. Advantages of fluid bed dryer.
  - B. Pharmaceutical factors affecting process of evaporations.
  - C. Give any two disadvantages of steam distillation.
  - D. Define evaporation.
  - E. Principles of microwave.
  - F. Give importance of crystals for pharmaceutical and allied field.

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GUJARAT AYURVED UNIVERSITY, JAMNAGAR

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

**Ayurvediya Anushadha Nirmana Shastra - III**

Date: 13-05-2015  
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. Write ingredients, preparatory method, paka, storage and indications of Jatyadi Ghrita. 10
2. Answer any one out of two questions. 10
  - A. What is Kshara Sutra ? Describe Kshara Kalpana.
  - B. Write types of Sneha Paka and mention importance of it.
3. Answer any Four out of five questions : 20
  - A. Kshirabala Taila.
  - B. Apamarga Kshara.
  - C. Narikela Lavana.
  - D. Hastidanta Masi.
  - E. Takra.
4. Answer any Five out of six questions : 10
  - A. Difference between Lavana and Kshara.
  - B. Difference between Manda and Peya.
  - C. Ksharashtaka.
  - D. Use of Kanji.
  - E. Shelf life of Pinda Taila.
  - F. Sneha Siddhi Lakshana.

**SECTION-B**

5. Write brief note on Visha Varga. 10
6. Write any one out of two questions : 10
  - A. What is Kupipakva Rasayana ? Describe Rasa Sindura.
  - B. Describe any one Nir gandha Kupipakva Rasayana.
7. Answer any Four out of questions : 20
  - A. Different methods of Gandhaka Shodhana.
  - B. Preparation of Hemagarbha Pottali.
  - C. Shodhana dravya of Uparasa.
  - D. Haratala Marana.
  - E. Parada Bhasma.
8. Answer any Five of six questions : 10
  - A. Formulation and dose of Gairika.
  - B. Shodhana dravya and dose of Haratala.
  - C. Therapeutic dose and antidote of Somala.
  - D. Dose and antidote of Bhallataka.
  - E. Dose and indications of Gandhaka Druti.
  - F. Shodhana dravya and antidote of Snuhikshira.

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GUJARAT AYURVED UNIVERSITY, JAMNAGAR

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

Pharmaceutical Chemistry – II

Date: 15-05-2015

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 instrumentation and applications of paper chromatography in detail. 10
2. Answer any **one** out of two questions. 10
  - A. What is H.P.T.L.C. ? Explain in detail.
  - B. Explain the principal of column chromatography. Describe the instrumentation of H.P.L.C. with diagram in detail.
3. Write a short note on any **Four** of the following : 20
  - A. Visualization techniques of T.L.C.
  - B. Types of columns used in H.P.L.C.
  - C. Application of Ion exchange chromatography.
  - D. Describe in brief types of detectors used in G.C.
  - E. Types of resins used in Ion exchange chromatography.
4. Answer any **Five** of the following : 10
  - A. Chromatograph.
  - B. Essential requirements in G.C. for samples.
  - C. Spray reagents to visualized alkaloid and tannin in T.L.C.
  - D. Define chromatography.
  - E. What is analyte ?
  - F. Rp-H.P.L.C.

SECTION-B

5. Explain the principles and instrumentation of nephelometry and turbidometry. 10
6. Answer any one out of two questions. 10
  - A. What is fluorescence ? Describe spectrofluorometer instrument in detail.
  - B. Write a short note on flame emission spectroscopy.
7. Write a short note on any **Four** of the following : 20
  - A. Different types of vibrations in I.R. spectroscopy.
  - B. Applications of A.A.S.
  - C. Describe conditions to get I.R. spectra.
  - D. Explain D.T.A. in brief.
  - E. pH metry.
8. Answer any **Five** of the following : 10
  - A. Nernst glower.
  - B. Wave no.
  - C. Monochromators of U.V.
  - D. Hypsochromic shift.
  - E. Bathochromic shift.
  - F. Hallow cathode lamp.

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