

GUJARAT AYURVED UNIVERSITY

JAMNAGAR

B. Pharm(Ayu.) Third Year Examination November-2014

**Ayurvediya Aushadha Gunadharm Shastra – III**

Date: 22-11-2014  
Saturday

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

- Instructions : 1. Every question is compulsory.  
2. Draw suitable diagrams wherever necessary.

**SECTION-A**

1. Explain the method of collection of drugs in various Ritus according to Charaka Sambhita and Rajanighantu. 10
  2. Describe various purification methods of drugs with examples. 10
- OR**
- Describe Samana Pratyarabdha and Vichitra Pratyarabdha in detail.
3. Describe in short any four Karmas of the following. 20
    - A. Mutra Samgraniya.
    - B. Shukra Shodhana.
    - C. Vamanopaga.
    - D. Hikka Nigrahana.
    - E. Stanya Shodhana.
  4. Enlist the controversial drugs mentioned in the name of following any five drugs. 10
    - A. Rasana.
    - B. Murva.
    - C. Amlavetasa.
    - D. Priyangu
    - E. Kakanasa.
    - F. Parpata.

**SECTION-B**

5. Describe in brief the drug Jyotishmati by mentioning botanical name, family, synonyms, botanical description, Dosha Karma, part used and formulation. 10
  6. Mention the properties and uses of Uparasa. 10
- OR**
- Mention the properties and uses of Dugdha Varga.
7. Write short note on any Four of the following : 20
    - A. Pancha Gavya
    - B. Ashtagandha.
    - C. Takra Varga.
    - D. Pancha Mahavisha.
    - E. Mukta.
  8. Mention botanical name, family, part used and doshakarma of any Five of the following : 10
    - A. Palasha.
    - B. Apamarga.
    - C. Sarshapa.
    - D. Chandana.
    - E. Danti.
    - F. Patha.

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GUJARAT AYURVED UNIVERSITY

JAMNAGAR

B. Pharm(Ayu.) Third Year Examination November-2014

**Ayurvediya Aushadha Nirmana Shastra - III**

Date: 21-11-2014  
Friday

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

- Instructions : 1. Every question is compulsory.  
2. Draw suitable diagrams wherever necessary.

**SECTION-A**

1. Write types of Sneha and mention importance of Sneha Kalpana. Explain preparatory methods and storage of Ghrita Kalpana. 10

2. Write importance of Pathya Kalpana. Describe Yusha and Yavagu Kalpana. 10

**OR**

Mention different types of Kshara and explain the preparatory method, stability period, storage and packaging methods of Apamarga Kshara.

3. Answer any **Four** of the following : 20

- A. Krshara.
- B. Narikela Lavana.
- C. Importance of Sneha Murcchana.
- D. Triphala Masi.
- E. Raaga & Shadava.

4. Answer any **Five** of the following : 10

- A. Shelf life of Lavana & Kshara Kalpana.
- B. Storage & Packing of Apamarga Kshara Taila.
- C. Shelf life of Apamarga Kshara Taila & Amrita Ghrita.
- D. Therapeutic uses of Narikela Lavana.
- E. Chacchika.
- F. Uses of Masi Kalpana.

**SECTION-B**

5. What are Upavishas and describe Kupilu in detail. 10

6. Write the types of Parada Murcchana and explain any one Parada Murcchana in detail. 10

**OR**

What is meant by Parada Jarana and explain its utility.

7. Answer any **Four** of the following : 20

- A. Grahya & agrahyata of Gandhaka.
- B. Physical & Chemical nature of Kasisa.
- C. Physical & Chemical nature of Hingula.
- D. Toxicity of Somala.
- E. Toxicity of Vatsanabha.

8. Answer any **Five** of the following : 10

- A. Therapeutic dose & formulations of Vatsanabha.
- B. Antidots & formulations of Bhallataka.
- C. Formulations of Langali.
- D. Formulations of Karaveera.
- E. Therapeutic dose and Antidote of Somala.
- F. Therapeutic dose and Shelf life of Rasa Sindura.

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GUJARAT AYURVED UNIVERSITY

JAMNAGAR

B. Pharm(Ayu.) Third Year Examination November-2014

Pharmacognosy of Ayurvedic Drugs - II

Date: 20-11-2014  
Thursday

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

Instructions : Every question is compulsory.

SECTION-A

1. Define alkaloid. Name leaf drugs containing alkaloids. Describe the trichomes and cell contents of these leaves. 10
2. Describe the pharmacopeal methods of evaluations of fixed oils. Give the botanical source and family of Chaulmugra and Eranda seeds. 10

OR

Discuss the environmental factors affecting the quality of the crude drugs.

3. Answer any Four of the following : 20
  - A. What are fats and waxes ? Mention the properties and uses of Bees wax.
  - B. Describe the methods of extraction of fixed oil.
  - C. Enlist the alkaloids of Langli. Why they are not considered as true alkaloids.
  - D. Name a bark drug containing alkaloid. Give its botanical source, family, chemical constituent and therapeutic uses.
  - E. Name the toxic seed drugs containing alkaloids and their methods of purification in Ayurveda.
4. Answer any Five of the following : 10
  - A. Mention the various tests for detection of alkaloids.
  - B. Describe the storage of fixed oil.
  - C. Mention the characters which differentiate vessel and tracheid.
  - D. Name the different types of fracture of the bark.
  - E. What is the meaning of exogenous and endogenous factors affecting the quality of crude drugs ?
  - F. Give the botanical source, family and uses of Brihati.

SECTION-B

5. What are essential oils ? Describe the various methods of extraction of them. 10
6. What is wood? Describe its various elements & botanical source of Swetachandana. 10

OR

What is bark ? Give detail histological features of Twaka.

7. Answer any Four of the following : 20
  - A. Describe the method of isolation of xylem elements, and its principle behind it.
  - B. Define fruit. Differentiate the characters of Krishnajiraka and Swetajiraka.
  - C. What is seed ? Describe the powder characters of Ela.
  - D. Name the fruit drugs of Triphala. Give their botanical sources and families.
  - E. Describe volatile oil containing drug reputed for its tranquilizing properties.
8. Answer any Five of the following : 10
  - A. What is raphe ?
  - B. What is idioblast ?
  - C. What is rhytidoma ?
  - D. What is Mayaphala ?
  - E. What is parquetry layer ?
  - F. Name the different varieties of Tulsi and their botanical sources.

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GUJARAT AYURVED UNIVERSITY

JAMNAGAR

B. Pharm(Ayu.) Third Year Examination November-2014

**Pharmaceutical Engineering**

Date: 19-11-2014  
Wednesday

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

- Instructions : 1. Every question is compulsory.  
2. Draw suitable diagrams wherever necessary.

**SECTION-A**

1. Explain principle and construction of a ball-mill with schematic diagram. 10
2. Compare and summarise sigma blade mixer and ribbon mixer. Describe their advantages and disadvantages. 10

**OR**

Explain construction of sedimentation tank with schematic diagram.

3. Write short note on any **Four** of the following : 20
  - A. Describe ultrasonic emulsifier.
  - B. Explain principle of colloidal mill.
  - C. Working of hammer mill.
  - D. Percolator extraction method.
  - E. Preparation of Vasaka syrup.
4. Answer any **Five** of the following : 10
  - A. Turbine mixer.
  - B. Silver son emulsifier.
  - C. Mesh analysis.
  - D. Ideal solvents.
  - E. Maceration extraction.
  - F. Define men strum.

**SECTION-B**

5. Explain principle and working of a spray dryer. Give schematic diagram. 10
6. Explain construction and working of vacuum crystallizer. Draw diagram. 10

**OR**

Describe theory, advantages and disadvantages of azeotropic distillation.

7. Write short note on any **Four** of the following : 20
  - A. Explain Mier's theory of super refraction.
  - B. Explain mechanism of safe of drying.
  - C. Distillation under reduced pressure.
  - D. Describe radiant heat dryer.
  - E. Principle of microwave dryer.
8. Answer any **Five** of the following : 10
  - A. Define Magma.
  - B. Differentiate between distillation and condensation.
  - C. Principles of tunnel dryer.
  - D. Construction of rotary evaporator.
  - E. Principle of freeze drying.
  - F. Steam distillation.

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# GUJARAT AYURVED UNIVERSITY

## JAMNAGAR

B. Pharm(Ayu.) Third Year Examination November-2014

### Pharmaceutical Engineering

Date: 19-11-2014  
Wednesday

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

- Instructions : 1. Every question is compulsory.  
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1. Explain principle and construction of a ball-mill with schematic diagram. 10
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  - A. Define Magma.
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GUJARAT AYURVED UNIVERSITY

JAMNAGAR

B. Pharm(Ayu.) Third Year Examination November-2014

**Pharmaceutical Engineering**

Date: 19-11-2014  
Wednesday

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

- Instructions : 1. Every question is compulsory.  
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**SECTION-A**

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B. Explain mechanism of safe of drying.  
C. Distillation under reduced pressure.  
D. Describe radiant heat dryer.  
E. Principle of microwave dryer.  
8. Answer any **Five** of the following : 10  
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B. Differentiate between distillation and condensation.  
C. Principles of tunnel dryer.  
D. Construction of rotary evaporator.  
E. Principle of freeze drying.  
F. Steam distillation.

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GUJARAT AYURVED UNIVERSITY

JAMNAGAR

B. Pharm(Ayu.) Third Year Examination November-2014

Pharmacology & Toxicology of Ayurvedic Drugs -I

Date: 18-11-2014  
Tuesday

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

- Instructions : 1. Every question is compulsory.  
2. Draw suitable diagrams whenever necessary.

SECTION-A

1. Enumerate nature and sources of drugs. 10  
2. Renal excretion of drugs. 10

OR

Discuss any five factors which modify the effects of drugs.

3. Answer any **Four** of the following : 20  
A. Ion-channel linked receptors.  
B. Blood brain barrier.  
C. Passive diffusion.  
D. Adverse drug reactions.  
E. Advantages and disadvantages of oral routes.  
4. Answer any **Five** of the following in brief : 10  
A. Pharmacy.  
B. Classification of receptors.  
C. Toxicology.  
D. Subcutaneous route.  
E. Bio-availability of drugs.  
F. Drug metabolized by acetylation.

SECTION-B

5. Explain cholinergic receptors and drugs acting on it. 10  
6. Explain different types of seizures. Classify drugs used in epilepsy. 10

OR

Discuss the principles of peptic ulcer therapy in the light of mechanism of drug action.

7. Answer any **Four** of the following : 20  
A. Digestants.  
B. Classification of anti-Parkinson's drugs.  
C. Antiemetic drugs.  
D. Sedative hypnotics.  
E. Write differences between sympathetic and parasympathetic nervous system.  
8. Answer any **Five** of the following in brief : 10  
A. Atypical antidepressants.  
B. Ayurvedic drugs used in constipation.  
C. Ayurvedic drugs used in vomiting.  
D. Names of  $\beta$ -blockers.  
E. Locations of  $\alpha$  and  $\beta$  receptors.  
F. Types of sleep.

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GUJARAT AYURVED UNIVERSITY

JAMNAGAR

B. Pharm(Ayu.) Third Year Examination November-2014

Pharmaceutical Chemistry - II

Date: 17-11-2014  
Monday

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

Instruction : Every question is compulsory.

SECTION-A

1. Name the detector frequently used in GC and discuss their functions. 10
2. What is the rate theory? How it is used in separation of component? 10

OR

Explain the applications of ion exchange chromatography in Ayurveda.

3. Answer any Four of the following : 20
  - A. Eddy's diffusion in column chromatography.
  - B. Numeric pumps.
  - C. Explain the difference between TLC and HPTLC?
  - D. Explain sparging in HPLC.
  - E. Scope of GLC.
4. Answer any Five of the following : 10
  - A. Reversed phase.
  - B. Ascending chromatography.
  - C. Mention difference between  $R_f$  value and  $R_t$  value.
  - D. Name resins used in ion exchange chromatography.
  - E. Tungsten lamp.
  - F. Refraction as detection tool.

SECTION-B

5. How hollow cathode lamps are used in AAS? Why you require more than one lamp? 10
6. Discuss introduction, scope and applications of IR spectroscopy in Ayurvedic pharmacy. 10

OR

Discuss applications of potentiometry.

7. Answer any Four of the following : 20
  - A. Scope of TGA, DTA & DSC in Ayurvedic pharmacy.
  - B. Explain instrumentation of UV visible spectroscopy.
  - C. Differentiate fluoremetry and phosphorimetry.
  - D. Explain instrumentation of IR spectroscopy.
  - E. Applications of polarography.
8. Answer any Five of the following : 10
  - A. Turbidimetry.
  - B. Flam photometry.
  - C. Mention the principle of phosphorimetry.
  - D. Name the detectors of UV spectrophotometer.
  - E. pH metry.
  - F. X-ray diffraction.

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