

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : May - 2017

**Rasashastra & Bhaishajya Kalpana – II (Ayurvedic Pharmaceutics)**

Date: 12-05-2017  
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. Describe the types, storage and shelf life of Churna Kalpana and write about Sitopaladi Churna. 10
2. Answer any one out of two questions. 10
  - A. Write about Chyavanaprasha Avaleha in detail.
  - B. Describe Ghana Kalpana and write about Samshamani Vati.
3. Answer any **Four** out of five questions : 20
  - A. Chandrodaya Varti.
  - B. Mustakadi Pramathya.
  - C. Triphala Guggulu.
  - D. Khanda Paka.
  - E. Lavangadi Vati.
4. Answer any **Five** out of six questions : 10
  - A. Ingredients of Hingvashtaka Churna.
  - B. Dose of Vyoshadi Vati.
  - C. Use of Simhanada Guggulu.
  - D. Shelf life of Gulaba Sharkara.
  - E. Use of Vasa Avaleha.
  - F. Packaging of Vati Kalpana.

**SECTION-B**

5. Describe Shilajit in detail. 10
6. Write any **one** out of two questions : 10
  - A. Describe Rasa Parpati with Parpati Kalpa Prayoga.
  - B. Give the names of Ashta Samskara of Parada and describe any two Samskara in detail.
7. Answer any **Four** out of questions : 20
  - A. Amritikarana.
  - B. Laghuvasant Malati Rasa.
  - C. Describe different Marana procedures.
  - D. Hingulottha Parada.
  - E. Lohitikarana.
8. Answer any **Five** of six questions : 10
  - A. Niruttha Pariksha.
  - B. Give the names of two formulations of Tuttha.
  - C. Use of Kajjali.
  - D. Rekhapurnatva Pariksha.
  - E. Vimala Shodhana.
  - F. Makshika Shodhana.

\*\*\*\*\*

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : May - 2017

**Dravyaguna – I (Ayurvedic Pharmacology)**

Date: 13-05-2017  
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 Dravya and write the importance of Dravyaguna Shastra. 10
2. Answer any one out of two questions. 10
  - A. Defining Guna, enlist the Gurvadi Guna with definition and examples.
  - B. Define Prabhava and write its importance in Dravyaguna Shastra with examples.
3. Write a short note on any **Four** of the following : 20
  - A. Chetana Dravyas.
  - B. Astavidha Veerya.
  - C. Sransana.
  - D. Comparison between Grahi and Stambhana.
  - E. Kashya, Chaksushya, Varnya.
4. Answer any **Five** of the following : 10
  - A. Which is the Rukshatama Rasa ? Write its Panchabhautika composition.
  - B. Action of Katu Vipaka Dosha, Dhatu and Mala.
  - C. Examples of Snigdha and Rukshna Dravyas.
  - D. Enlist any two Vamanopaga Dravyas.
  - E. Enumerate Lavana Rasa Atisara Janya Vikara.
  - F. Vipakopalabधि Upaya.

**SECTION-B**

5. Define Bruhat Panchamoola and Laghu Panchamoola with its botanical name and collective actions. 10
6. Answer any one out of two questions. 10
  - A. Write Botanical name, external morphology, part used, Rasapanchaka and main indication of Aswagandha and Vidanga.
  - B. Write Botanical name, external morphology, habit, habitate, Rasapanchaka and formoolation of any two Rasayana Dravyas.
7. Write a short note on any **Four** of the following : 20
  - A. Kantaka Panchamoola.
  - B. Madhyama Panchamoola.
  - C. Katu Chaturjata.
  - D. Trikarshika.
  - E. Triphala.
8. Answer any **Five** of the following : 10
  - A. Write dosage and doseage form of Nimba.
  - B. Write Rasapanchaka of Aswagandha.
  - C. Write about varieties of Musta.
  - D. Write about part used and Veerya of Saireyaka.
  - E. Write the synonyms showing the morphology of Apamanga.
  - F. Write main action of Ankola.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : May - 2017

**Pharmacognosy of Ayurvedic Drugs – I**

Date: 15-05-2017  
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 inflorescence ? Give detail classification with examples. 10
2. Answer any one out of two questions. 10
  - A. Write down modification of Root and stem with suitable examples.
  - B. Describe the diagnostic characters of Solanaceae and give morphological characters of any one medicinal plant belongs to it.
3. Write a short note on any **Four** of the following : 20
  - A. Describe capitulum and spadix.
  - B. Explain various attachments of anther to the filaments.
  - C. Discuss aestivation.
  - D. Write a note on multiple fruit.
  - E. Give morphological characters of Japa.
4. Answer any **Five** out of six questions : 10
  - A. What is thallophyta ?
  - B. Define Rhizome.
  - C. Give Latin name and family of Chakramarda.
  - D. Write down floral key of menispermaceae.
  - E. What is cremocalp ?
  - F. What do you mean by accessory whorls ?

**SECTION-B**

5. Define pharmacognosy in detail. Discuss its historical back ground and its scope. 10
6. Write any **one** out of two questions : 10
  - A. Discuss the role of crystals in pharmacognosy.
  - B. What do you mean by polysaccharides ? Enumerate your answer by suitable means and give a complete note on any one medicinal plant belongs to it.
7. Write a short note on any **Four** of the following : 20
  - A. Explain Siddha system of medicine in detail.
  - B. What do you mean by organised and unorganised drugs ? Justify with appropriate examples.
  - C. Draw diagrammatic sketch of Shatavari root, label and discuss its importance in Ayurveda.
  - D. Write a note on aerenchyma and collenchyma tissues.
  - E. Give classification of carbohydrates in detail.
8. Answer any **Five** of six questions : 10
  - A. Define vascular bundle.
  - B. Histochemical test for starch grains.
  - C. Give biological source, chemical constituents and uses of Kumari.
  - D. Give biological source, chemical constituents and uses of Methika.
  - E. What is the adulterant of Babbul Niryas.
  - F. What are the derivatives of glucose and galactose ?

GUJARAT AYURVED UNIVERSITY, JAMNAGAR  
B. Pharm(Ayu.) Second Year Examination : May - 2017

**Pharmaceutical Biochemistry**

Date: 16-05-2017  
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. Write a detailed note on RNA, its types and functions. 10
2. Answer any one out of two questions. 10
  - A. Enlist the industrial and medical uses of carbohydrates.
  - B. Explain various modes of transport across cell membrane.
3. Write a short note on any **Four** of the following : 20
  - A. What are free radicals and antioxidants ?
  - B. What are heavy metals ? How are they useful in Ayurvedic preparations ?
  - C. Differentiate between plant and animal cell.
  - D. Pantothenic Acid.
  - E. Kwashiorkar.
4. Answer any **Five** of the following : 10
  - A. Why is nucleus called the brain of cell ?
  - B. Define PUFA giving suitable examples.
  - C. Define epimer Give examples.
  - D. Define Beer's and Lambert's Law.
  - E. What are coenzymes ? Give examples.
  - F. Why is Iron an essential element ?

**SECTION-B**

5. Write a note on urea cycle. 10
6. Answer any one out of two questions. 10
  - A. Describe enzyme inhibition giving suitable examples.
  - B. Write a note on electrophoresis (principle, types and uses).
7. Write a short note on any **Four** of the following : 20
  - A. Why viruses and RBCs can not be considered as true cells ?
  - B. Define enzymes.
  - C. Why vitamin D is called the Sunshine Vitamin ?
  - D. Explain Cori's cycle.
  - E. Write a short note on gout.
8. Answer any **Five** of the following : 10
  - A. What is oxidative phosphorylation ?
  - B. Define indigenous and exogenous obesity.
  - C. Write the other names of :  
(a) Vitamin B<sub>1</sub>      (b) Vitamin C      (c) Vitamin B<sub>2</sub>      (d) Vitamin E
  - D. Write the importance of TCA cycle.
  - E. Write any four functions of calcium as a micronutrient.
  - F. Name the diseases which are caused by increase in : Uric acid and Glucose.

\*\*\*\*\*

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : May - 2017

**Physical Pharmacy and Pharmaceutics**

Date: 17-05-2017  
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 concepts and various factors influencing the viscosity. 10
2. Answer any one out of two questions. 10
  - A. Explain importance of rate of reaction in pharmacy.
  - B. Explain methods of determination of boiling point and freezing point.
3. Write a short note on any **Four** of the following : 20
  - A. Note on first law of thermodynamics.
  - B. Enthalpy and entropy.
  - C. Kirchoff's equation.
  - D. Immiscible liquids.
  - E. Optical activities.
4. Answer any **Five** of the following : 10
  - A. Order of reaction.
  - B. Sublimation.
  - C. Concentration unit.
  - D. Rheology.
  - E. Plastic flow.
  - F. Dielectric constant.

**SECTION-B**

5. What is the colloids ? Discuss their classifications with suitable examples. 10
6. Answer any one out of two questions. 10
  - A. Discuss the methods of determination of interfacial tension.
  - B. Define the powder and explain their characteristics in detail.
7. Write a short note on any **Four** of the following : 20
  - A. Describe one experimental method for determining the zeta potential of colloids.
  - B. Optical properties of colloids.
  - C. The process of detergency.
  - D. Angle of repose.
  - E. Bulk density and tap density.
8. Answer any **Five** of the following : 10
  - A. Eutectic mixture.
  - B. Micromeritics.
  - C. Surface free energy.
  - D. Adsorbant.
  - E. Brownian motion.
  - F. Give applications of intrinsic viscosity.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : May - 2017

**Pharmaceutical Analysis of Ayurvedic Drugs - I**

Date: 18-05-2017  
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. How physico-chemical analysis methods is useful to ascertain quality of drug material ? Discuss. 10
2. Answer any one out of two questions. 10
  - A. Discuss oil and fat containing drugs with classification of oil and fats.
  - B. Discuss preparation of sample for analysis as important task.
3. Write a short note on any **Four** of the following : 20
  - A. Importance of peroxide and acid value in oils.
  - B. Optical methods of analysis in oils.
  - C. How temperature affects analytical results in oils/fats.
  - D. Differentiate disintegration and dissolution of tablets.
  - E. Discuss solvent effect with respect to extractive value.
4. Answer any **Five** of the following : 10
  - A. Moisture content.
  - B. Ash value.
  - C. RMPK value.
  - D. Disintegration time of tablets.
  - E. Specific quality.
  - F. Foreign matters.

**SECTION-B**

5. Discuss different methods of analysis for Asava and Arishta preparations. 10
6. Answer any one out of two questions. 10
  - A. How Avaleha and Paka preparations are different from Asava and Arishta analysis view point.
  - B. Discuss classical analysis of metallic mineral preparations.
7. Write a short note on any **Four** of the following : 20
  - A. List of calcium containing drugs and method of estimation.
  - B. Sodium and potassium analysis using flame photometry.
  - C. Qualitative test for silver, lead and mercury.
  - D. Distillation methods and quantitative determination of alcohol in sample.
  - E. How determination of consistency is useful.
8. Answer any **Five** of the following : 10
  - A. Solubility in water/acids.
  - B. Compounds of lead.
  - C. Qualitative tests for copper and lead.
  - D. Volatile constituents.
  - E. Refractive index.
  - F. Special gravity.

# GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : May - 2017

## Pharmaceutical Microbiology

Date: 19-05-2017  
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. Write differences between prokaryotes and eukaryotes. 10
2. Answer any one out of two questions. 10
  - A. Write a note on bacterial transformation.
  - B. Write a note on light microscopy and dark background microscopy.
3. Write a short note on any **Four** of the following : 20
  - A. Culture media.
  - B. Growth curve of bacteria.
  - C. Morphology of fungi.
  - D. Design of an ideal fermenter.
  - E. Louis Pasteur.
4. Answer any **Five** of the following : 10
  - A. Functions of PCR.
  - B. Functions of capsule and spore.
  - C. Functions of light microscopy.
  - D. Contributions of John Lister.
  - E. Write the full form of VP test and MR test.
  - F. Functions of Agitator.

### SECTION-B

5. Write a note on Validation of sterilization. 10
6. Answer any one out of two questions. 10
  - A. Write a note on methods of sterility testing of pharmaceutical products.
  - B. Ag-Ab reaction methods due to precipitation and agglutination.
7. Write a short note on any **Four** of the following : 20
  - A. Microbiological guidelines for herbal drugs.
  - B. Hyper sensitivity reactions.
  - C. Define and classify autoimmune disorders.
  - D. Drug resistance.
  - E. Bacterial count.
8. Answer any **Five** of the following : 10
  - A. Name any four methods of food preservation.
  - B. Write name of any four chemicals used for sterilization.
  - C. Write about types and role of T-cell.
  - D. What is a biological indicator ? Give Examples.
  - E. Functions of Ig-M.
  - F. What is cold sterilization ?

\*\*\*\*\*