

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : December-2019

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

Date: 16-12-2019  
Monday

Time: 02:30 P.M. to 05:30 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 Vati kalpana. State its synonyms, method, types and current trends. 10
  2. Answer any one out of two questions: 10
    - A. Describe Simhanada guggulu.
- OR**
- B. Write about Vasa avleha.
3. Write short notes on any **Four** of the following : 20
    - A. Pathyapathya of guggulu kalpana.
    - B. Mudvika avleha.
    - C. Shankpushpi sharkara.
    - D. Describe an example of Panak.
    - E. Drakshadi gutika.
  4. Answer any **Five** of the following :(two to three sentences) 10
    - A. Shelf life of Churna kalpana.
    - B. Current trends of Avleha kalpana.
    - C. General dose and anupān of avleha kalpana.
    - D. How should guggulu kalpa be taken?
    - E. General dose of churna kalpana.
    - F. Ingredients of Chandrodaya varti.

**SECTION-B**

5. Describe Hingulottha parada in detail. 10
  6. Answer any one out of two questions. 10
    - A. Define Kajjali. State its pariksha and use.
- OR**
- B. Describe Shodhan in detail.
7. Write short notes on any **Four** of the following : 20
    - A. Sveta parpati.
    - B. Satvapatan
    - C. Vimala
    - D. Rasaka
    - E. Describe Varitar and Apunarbhav pariksha
  8. Answer any **Five** of the following :(two to three sentences) 10
    - A. Two characteristics which indicate that Abhraka bhasma is properly prepared.
    - B. Ingredients of Tribhuvankirti rasa.
    - C. How is Laghuvasantmalti rasa prepared?
    - D. Dose and use of Tamra parpati.
    - E. Ingredients of Tamra parpati and its colour.
    - F. Two formulations of Abhraka.

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GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : December-2019

**Dravyaguna – I (Ayurvedic Pharmacology)**

Date: 17-12-2019

Tuesday

Time: 02:30 P.M. to 05:30 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 classification of Dravya on the basis of Ahara and Aushadha in detail. 10
2. Answer any one out of two questions. 10
  - A. Define Guna and write about the classification of Guna in detail.
  - B. Define Vipaka and describe its types and methods of perception (Upalabधि).
3. Write a short note on any **Four** of the following : 20
  - A. Karana Dravyas.
  - B. Yatha Rasa Vipaka Vada.
  - C. Virechana.
  - D. Comparison between Balya and Bruhanoya.
  - E. Kandughna and Kusthagna.
4. Answer any **Five** of the following : 10
  - A. Which is the Guruttama Rasa ? Write its Panchabhautika composition.
  - B. Action of Amla Vipaka on Dosha, Dhatu and Mala.
  - C. Examples of Vishada and Picchhila Dravyas.
  - D. Enlist any two Madakari Dravyas.
  - E. Enumerate Amla Rasa Atisevana Janya Vikara.
  - F. Enlist two Dravyas having Katu Rasa and Snigdha Guna.

**SECTION-B**

5. Define Dashamoola and Trikatu with its botanical name and collective action. 10
6. Answer any one out of two questions. 10
  - A. Write Botanical name, external morphology, part used, Rasapanchaka and main indication of Ashoka and Yashtimadhu.
  - B. Write Botanical name, external morphology, habit, habitate, Rasapanchaka and formolation of Eladwaya.
7. Write a short note on any **Four** of the following : 20
  - A. Jivanapanchamoola.
  - B. Panchakola.
  - C. Trimada.
  - D. Trijata.
  - E. Chaturbija.
8. Answer any **Five** of the following : 10
  - A. Write dosage and dosage form of Bharangi.
  - B. Write Rasapanchaka of Amalaki.
  - C. Write about varieties of Kutaja.
  - D. Write about part used and Veerya of Changeri.
  - E. Write the synonyms showing morphology of Ashwagandha.
  - F. Write main action of Kasani.

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**Pharmacognosy of Ayurvedic Drugs – I**

Date: 18-12-2019  
Wednesday

Time: 02:30 P.M. to 05:30 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 Fruit & Give detail account on Dry Fruit. 10
  2. Answer any one out of two questions. 10
    - A. Discuss collection, processing & storage of crude drugs in detail.
- OR**
- B. Describe the diagnostic characters of Apocynaceae family and give the morphological characters of any one medicinal plant belonging to it.
3. Write short notes on any **Four** of the following: 20
    - A. Discuss plant growth regulators.
    - B. Give botanical description on plant Guduchi.
    - C. Give an account on modification of Stem.
    - D. What do you mean by Dicot and Monocot?
    - E. Discuss capsule and follicle.
  4. Answer any **Five** of the following :(two to three sentences) 10
    - A. Wood.
    - B. Verticillaster
    - C. Biological source of Datura.
    - D. Uses of Shankhpuspi.
    - E. Tray dryers.
    - F. Raceme.

**SECTION-B**

5. Discuss in detail Unani system of medicine. 10
  6. Answer any one out of two questions. 10
    - A. Discuss Alphabetical & Taxonomical Classification of Crude drugs with suitable examples.
- OR**
- B. Anatomical differentiation of dicot & Monocot root.
7. Write short notes on any **Four** of the following: 20
    - A. Discuss xylem in detail.
    - B. Mucilage, its estimation and colour test.
    - C. Role of stomata in Pharmacognosy.
    - D. Laghu & Brihat Gokshur.
    - E. Discuss collenchyma & aerenchyma in detail.
  8. Answer any **Five** of the following :(two to three sentences) 10
    - A. What is Siddha?
    - B. Define unorganized drugs.
    - C. Define Embryo.
    - D. Give Biological source and uses of Karaya gum.
    - E. Histochemical test of Lignin.
    - F. Give Biological source and uses of Kokilaksha.

GUJARAT AYURVED UNIVERSITY, JAMNAGAR  
B. Pharm(Ayu.) Second Year Examination : December-2019

**Pharmaceutical Biochemistry**

Date: 19-12-2019  
Thursday

Time: 02:30 P.M. to 05:30 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 & explain glycolysis. 10
  2. Write the various uses of carbohydrates. 10
- OR**
- Define & write the classification of amino acids.
3. Write short notes on any **Four** of the following : 20
    - A. What are polysaccharides ? Give examples.
    - B. D.N.A. Packaging.
    - C. Structure and function of nucleus & endoplasmic reticulum.
    - D. Differences between colorimeter & spectrophotometer.
    - E. What is competitive inhibition ? Give examples.
  4. Answer any **Five** of the following :(two to three sentences) 10
    - A. Criteria for defining a cell.
    - B. Epimers of sugars.
    - C. Define enzymes. Give examples.
    - D. Write the principle of centrifugation.
    - E. Define prokaryotes & eukaryotes. Give examples.
    - F. What is direct active transport ? Give example.

**SECTION-B**

5. Write a note on vitamin B<sub>1</sub> and vitamin B<sub>3</sub>. 10
  6. Define and explain T.C.A. Cycle. 10
- OR**
- Write a note on heavy metals.
7. Write short notes on any **Four** of the following : 20
    - A. Write a note on folic acid.
    - B. Vitamin – C.
    - C. Sodium and Chloride as micronutrients.
    - D. Phase I reactions.
    - E. Kwashiorkar.
  8. Answer any **Five** of the following :(two to three sentences) 10
    - A. What are free radicals ?
    - B. What is beri – beri ?
    - C. Write full forms of IDDM and PPP.
    - D. What is the importance of urea Cycle ?
    - E. Enlist the functions of Vitamin E.
    - F. Write the other names of : Vitamin B<sub>6</sub> & Vitamin A

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**Physical Pharmacy and Pharmaceutics**

Date: 20-12-2019  
Friday

Time: 02:30 P.M. to 05:30 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 standard free energy and the equilibrium constant. 10
2. Answer any one out of two questions. 10
  - A. Explain phase equilibria and phase rule.
  - B. Explain importance of rate of reaction in pharmacy.
3. Write a short note on any **Four** of the following : 20
  - A. Explain ideal and real solutions.
  - B. Partition of solute between two immiscible liquids.
  - C. Narrate various concentration expressions.
  - D. Kirchoff's equation.
  - E. Half life and shelf life.
4. Answer any **Five** of the following : (two to three sentences) 10
  - A. Define: - Enthalpy.
  - B. Chemical kinetics.
  - C. Dielectric constant.
  - D. Newtonian flow.
  - E. Sublimation.
  - F. Dipole moment.

**SECTION-B**

5. Explain in detail the methods of particle size determination? 10
6. Answer any one out of two questions. 10
  - A. Explain the derived properties of powders.
  - B. Discuss the methods of determination of surface tension?
7. Write a short note on any **Four** of the following : 20
  - A. Kinetic properties of colloidal dispersions.
  - B. Characteristics of dispersion phase.
  - C. Explain Angle of repose.
  - D. Explain Thixotropy.
  - E. Surface active agents & HLB.
8. Answer any **Five** of the following : (two to three sentences) 10
  - A. Name of any two Thixotropic agents.
  - B. Define lyophilic colloids. Give two examples.
  - C. Surface tension.
  - D. Adsorbent.
  - E. Zeta potential.
  - F. True density.

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GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : December-2019

**Pharmaceutical Analysis of Ayurvedic Drugs - I**

Date: 21-12-2019  
Saturday

Time: 02:30 P.M. to 05:30 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 sampling. Why it is important ? Describe sampling methodology in terms of physical state of the formulations. 10
2. What are oils and fats? Write down its classification and enumerate all the parameters of its analysis and describe any 3 in detail. 10

**OR**

- Enumerate WHO-GMP guidelines with respect to sampling of drugs.
3. Write short notes on any **Four** of the following : 20
- A. Discuss analytical parameters of tablets in brief.  
B. Extractive value in different solvents in detail.  
C. What is Ash ? Define. Discuss Ash analysis in brief.  
D. Explain foreign matter in detail.  
E. Describe Abbe's refractometer in brief.
4. Answer any **Five** of the following :(two to three sentences) 10
- A. Enumerate 5 drugs containing volatile oil.  
B. Define – Iodine value.  
C. Define – Refractive index.  
D. Peroxide value.  
E. Acetyl value.  
F. Moisture content.

**SECTION-B**

5. What is the difference between Avleha and Paka ? Discuss analytical profile of Avleha and Paka in detail. 10
6. Enumerate some calcium containing drugs of Ayurveda and describe calcium estimation in detail. 10

**OR**

- How will you estimate 'Fe' content from Lauha bhasma ? Explain the procedure.
7. Write short notes on any **Four** of the following : 20
- A. How will you prepare stock solution for sugar analysis ? Describe the procedure.  
B. Consistency characteristic in terms of classical reference for Avleha and Paka.  
C. Estimation of alcohol content from Arjunarishta.  
D. Difference between Asav and Arishta in terms of method of preparation.  
E. What is reducing and non-reducing sugars ? Give examples of both reducing and non reducing sugars.
8. Answer any **Five** of the following :(two to three sentences) 10
- A. Fehling's solution.  
B. Qualitative tests for copper (2 tests).  
C. Qualitative tests for sodium (2 tests).  
D. Specific gravity.  
E. Role of Lead acetate in sugar estimation.  
F. Acid insoluble Ash.

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GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : December-2019

**Pharmaceutical Microbiology**

Date: 23-12-2019  
Monday

Time: 02:30 P.M. to 05:30 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 about contributions made by Joseph Lister and Robert Koch in the field of Microbiology. 10
2. Answer any one out of two questions. 10
  - A. Write a note on structures external to the cell wall

**OR**

  - B. Write a note on bacterial cell wall.
3. Write short notes on any **Four** of the following : 20
  - A. Identification of bacteria on the basis of carbohydrate metabolism
  - B. Characteristics of an ideal fermenter
  - C. Transformation
  - D. Nutritional requirements of bacteria
  - E. Structure of virus
4. Answer any **Five** of the following :(two to three sentences) 10
  - A. Who is known as father of Microbiology?
  - B. What is the application of dark field microscopy?
  - C. Define plasmid.
  - D. Name two endospore forming organisms.
  - E. Name any two bacilli.
  - F. What is the importance of impeller and anti-foam agents in a fermenter?

**SECTION-B**

5. Write a note on ELISA. 10
6. Answer any one out of two questions. 10
  - A. Write a note on antibiotic sensitivity testing.

**OR**

  - B. What is food intoxication? Write a note on botulism.
7. Write short notes on any **Four** of the following : 20
  - A. Factors affecting disinfectant action
  - B. Methods of sterility testing
  - C. Adaptive immunity
  - D. Hypersensitivity type II
  - E. Factors affecting antigenicity
8. Answer any **Five** of the following :(two to three sentences) 10
  - A. Write full forms of Ag and RIA.
  - B. Which antibodies act as membrane bound receptors?
  - C. What is rocket electrophoresis?
  - D. Which organism is used to validate dry heat sterilization process?
  - E. What are NK cells?
  - F. What is drug resistance in bacteria?

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