

GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : August-2022

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

Date: 25-08-2022  
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 *Avaleha Kalpana*. Explain in detail Chyavanprash Avleha. 10
2. Answer any one out of two questions. 10
- A Describe the synonyms, importance, general method of preparation of *Vati Kalpana*.
- OR**
- B Define *Churna Kalpana*. Explain its general method of preparation, dose, storage and packaging.
3. Write short notes on any **Four** of the following: 20
- A. *Guduchi Satva*.
- B. *Sharkara Kalpana*.
- C. *Simhanada Guggulu*.
- D. *Varti Kalpana*
- E. *Khandapaka Kalpana*.
4. Answer any **Five** of the following :(two to three sentences) 10
- A. Write the ingredients of *Sitopladi Churna*
- B. Write the ingredients of *Vasavaleha*.
- C. Write the definition of *Panaka Kalpana*.
- D. Write the indication of *Chandrodaya Varti*.
- E. Write the ingredients of *Triphala Guggulu*.
- F. Write the ingredients of *Samsamani Vati*.

**SECTION-B**

5. What is *Shodhana*? Describe its concept along with different methods of *Shodhana*. 10
6. Answer any one out of two questions. 10
- A Describe *Bhasma Pariksha* in detail.
- OR**
- B Enumerate *Maharasa Dravya*. Explain *Grahya Lakshana*, *Shodhana* and *Marana* of *Abhraka*.
7. Write short notes on any **Four** of the following: 20
- A. Concept of *Amritikarana*.
- B. *Parpati Paka Pariksha*
- C. *Shilajit Shodhana*.
- D. *Hingulottha Parada*
- E. Enumerate *Ashtasamskaras* of *Parada*. Explain its 1<sup>st</sup> *Samskara*.
8. Answer any **Five** of the following :(two to three sentences) 10
- A. Write the *Grahya Lakshana* of *Makshika*.
- B. Write the aim of *Mardana Samskara*.
- C. Write any two formulations of *Tuttha*.
- D. Write the dose and ingredients of *Tamra Parpati*.
- E. Write the *Bhavana Dravyas* of *Tribhuvan Kirti Rasa*.
- F. Write the *Vikara Nivarana* of *Makshika*.

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GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : August-2022

**Dravyaguna – I (Ayurvedic Pharmacology)**

Date: 26-08-2022  
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. Explain *Vipaka* in detail. 10
2. Answer any one out of two questions. 10
- A Write classification of *Dravya* according to *Bhavprakasha* in brief.
- OR**
- B Explain *Rasa* in detail.
3. Write short notes on any **Four** of the following: 20
- A. Write the concept of *Veerya* in brief.
- B. Define *Kandughna* and *Kusthaghna* with suitable examples.
- C. *Paradi Gunas*.
- D. *Virechana* and *Virechanopaga*.
- E. Explain the classification of *Dravya* according to *Prayogbheda* and *Doshakarmabheda*.
4. Answer any **Five** of the following :(two to three sentences) 10
- A. Enumerate *Adhyatmika Gunas*.
- B. Write any two examples of *Andaja Dravya*.
- C. *Grahi*.
- D. Define *Swedaja Dravya*.
- E. *Pachana*.
- F. *Chakshushya*.

**SECTION-B**

5. Discuss *Haritaki* in detail. 10
6. Answer any one out of two questions. 10
- A Write *Rasa Panchaka*, habit, habitat and any two formulations of *Pippali* and *Nirgundi*.
- OR**
- B Write botanical name, family, part used, dose and any two synonyms of *Brahmi* and *Adraka*.
7. Write short notes on any **Four** of the following: 20
- A. *Katuchaturjata*.
- B. Write uses and part used of *Bilwa*.
- C. *Kantakpanchamoola*.
- D. *Bruhatpanchamoola*.
- E. *Trikarshika* and *Trimada*.
8. Answer any **Five** of the following :( Botanical name, family, part used and *veerya*) 10
- A. *Karmarda*.
- B. *Ankola*.
- C. *Changeri*.
- D. *Vansha*.
- E. *Mundi*.
- F. *Tulsi*.

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GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : August-2022

**Pharmacognosy of Ayurvedic Drugs – I**

Date: 29-08-2022  
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. Discuss various types of Placentation with suitable examples. 10
2. Answer any one out of two questions. 10
- A Describe the diagnostic characters of Malvaceae plant family and give the morphological characters of any one medicinal plant belongs to it.
- OR**
- B Discuss collection, processing & storage of crude drugs in detail.
3. Write short notes on any **Four** of the following : 20
- A. Discuss various attachment of Anther to the filament.
- B. Describe inflorescences various types with suitable examples.
- C. Give detail account on Bark.
- D. Discuss fleshy fruit in detail.
- E. Shape of leaf.
4. Answer any **Five** of the following :(two to three sentences) 10
- A. Stem
- B. Give uses of Sankhpushpi
- C. Spray dryers
- D. Give uses of Guduchi
- E. Legume
- F. Give family key of Solanaceae

**SECTION-B**

5. Define Pharmacognosy & discuss its scope in detail 10
6. Answer any one out of two questions. 10
- A Discuss in detail Ayurved system of medicine
- OR**
- B Discuss various types of classification of crude drugs in detail with suitable examples
7. Write short notes on any **Four** of the following : 20
- A. What is dicot leaf ? draw diagrammatic section of it, label & describe it in short.
- B. Identification tests for carbohydrates
- C. Stomata
- D. Discuss in detail Unani system of medicine
- E. Discuss various types tissue's in brief.
8. Answer any **Five** of the following :(two to three sentences) 10
- A. Define crude drugs
- B. Testa
- C. Gado Satva
- D. What is Sidhha system of medicine?
- E. Botanical source and chemical constituent of Babool.
- F. Define tissue.

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**Pharmaceutical Biochemistry**

Date: 30-08-2022  
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. Define and classify carbohydrates. 10
2. Answer any one out of **two** questions. 10
  - A Define proteins and write down its structural organization.
- OR**
- B Describe the structure and types of DNA.
3. Write short notes on any **Four** of the following : 20
  - A. pI value and titration curve of amino acids.
  - B. Differences between animal and plant cells.
  - C. Fluid mosaic model of cell membrane.
  - D. Enzyme classification.
  - E. Differences between colorimeter and spectrophotometer.
4. Answer any **Five** of the following :(two to three sentences) 10
  - A. What are essential amino acids? Give examples.
  - B. Name the organelles involved in a. Packaging of proteins b. Synthesis of proteins
  - C. What is the principle of centrifugation technique?
  - D. Name the bonds present in a. Carbohydrates b. Proteins
  - E. Write the full forms of a. HDL b. tRNA
  - F. Define passive transport. Give examples.

**SECTION-B**

5. Write in detail the TCA cycle. 10
6. Answer any one out of **two** questions. 10
  - A Write a note on vitamin A.
- OR**
- B Define PEM. Write a note on Kwashiorkor.
7. Write short notes on any **Four** of the following : 20
  - A. Sodium and Potassium as micronutrient.
  - B. Folic acid.
  - C. Urea cycle.
  - D. Free radicals
  - E. Heavy metals
8. Answer any **Five** of the following :(two to three sentences) 10
  - A. Why vitamin D is called as sunshine vitamin?
  - B. Name the co-enzyme form of a. Vitamin B<sub>3</sub> b. Vitamin B<sub>6</sub>.
  - C. How many ATPs are generated when one molecule of NADH is oxidised?
  - D. Define xenobiotics. Give examples.
  - E. What are the metabolic changes seen in obesity?
  - F. What is the full form of a. RDA b. BMR?

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GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : August-2022

**Physical Pharmacy and Pharmaceutics**

Date: 01-09-2022  
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 chemical kinetics and give its applications in detail. 10
2. Answer any one out of two questions. 10
  - A. Define adsorption isotherm & discuss types of isotherm.
  - B. Explain applications of heat of combustion in detail.
3. Write a short note on any **Four** of the following : 20
  - A. Phase rule.
  - B. Narrate various concentration expressions.
  - C. Discuss concepts & various factors influencing the viscosity.
  - D. Methods of determination of order.
  - E. Enthalpy of reaction.
4. Answer any **Five** of the following : (two to three sentences) 10
  - A. Entropy.
  - B. Enthalpy.
  - C. Optical activities.
  - D. Dipole moment.
  - E. Sublimation.
  - F. Refractive index.

**SECTION-B**

5. Define Suspension. Differentiate between Flocculated and Deflocculated suspension and enumerate the evaluation parameters of suspension. 10
6. Answer any one out of two questions. 10
  - A. Describe the process of detergency and role of HLB scale in that.
  - B. Define micromeritics and explain their application in pharmacy.
7. Write a short note on any **Four** of the following : 20
  - A. Application of surface active agents.
  - B. Difference between physical and chemical adsorption.
  - C. What are methods of particle size determination?
  - D. Describe Andersen pipette method of analysing the partical size.
  - E. Spreading coefficient.
8. Answer any **Five** of the following : (two to three sentences) 10
  - A. Surface free energy.
  - B. HLB scale.
  - C. Surfactant.
  - D. Angle of repose.
  - E. Define: Emulsion
  - F. Enumerate Tests for emulsion.

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GUJARAT AYURVED UNIVERSITY, JAMNAGAR

B. Pharm(Ayu.) Second Year Examination : August-2022

**Pharmaceutical Analysis of Ayurvedic Drugs - I**

Date: 02-09-2022  
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. Write importance of sampling and explain sampling method for solid 10
  2. Answer any one out of two questions. 10
    - A Explain different parameters used for evaluation of tablet.
- OR**
- B What are types of compounds can be saponifiable? Explain method of saponification.
3. Write short notes on any **Four** of the following : 20
    - A. Discuss water soluble & acid insoluble ash as parameters
    - B. RMPK value
    - C. Extractive value in different solvent.
    - D. Total solid.
    - E. Acid value.
  4. Answer any **Five** of the following :(two to three sentences) 10
    - A. Define Hardness of Tablet.
    - B. Define Saturated and unsaturated fat.
    - C. Give significance of Iodine value.
    - D. Give name of instruments use for determination of Refractive Index.
    - E. Define Iodine value.
    - F. Define foreign matter.

**SECTION-B**

5. Determination of refractive index for Asava and Arishta preparation 10
  6. Answer any one out of two questions. 10
    - A How will you estimate 'Fe' content from Lauha bhasma? Explain procedure.
- OR**
- B Explain estimation of sugar in drug, prepared with heat exposure.
7. Write short notes on any **Four** of the following : 20
    - A. pH determination and its importance.
    - B. Moisture content in Avaleha and Paka preparation.
    - C. Specific Gravity of Asava preparation
    - D. Classical test for evaluation of Bhasma.
    - E. Estimation of Sodium and potassium by flame photometry.
  8. Answer any **Five** of the following :(two to three sentences) 10
    - A. Define Bhasma and Kshara.
    - B. Give Killer Killani test for sugar.
    - C. Write difference between reducing and non-reducing sugar.
    - D. Give qualitative tests for calcium.
    - E. Why sodium oxalate is used in estimation of reducing sugar.
    - F. Give qualitative tests for mercury.

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**Pharmaceutical Microbiology**

Date: 03-09-2022  
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. Explain structure and morphology of viruses. 10
2. Answer any one out of two questions. 10
  - A With a labelled diagram, explain Gram+ve & Gram-ve cell walls.
  - OR**
  - B What are the contributions of Louis Pasteur and John Tyndall in the field of Microbiology?
3. Write short notes on any **Four** of the following: 20
  - A. Differences between SEM and TEM.
  - B. Physical conditions required for bacterial growth.
  - C. Design of an ideal fermentor.
  - D. Bacterial identification tests based on protein utilization.
  - E. Light microscopy.
4. Answer any **Five** of the following :(two to three sentences) 10
  - A. Advantages of phase contrast microscopy.
  - B. Name two basal media.
  - C. Explain why bacteria cannot grow in Sabouraud dextrose media?
  - D. What is a competent cell?
  - E. Give two examples of capsule forming bacteria.
  - F. What is pasteurization?

**SECTION-B**

5. Explain in detail the methods of sterility testing of pharmaceutical products. 10
6. Answer any one out of two questions. 10
  - A Write a note on drug resistance.
  - OR**
  - B Discuss Physical methods of sterilization
7. Write short notes on any **Four** of the following: 20
  - A. Definition and factors effecting antigenicity.
  - B. Write a short note on Kelsey-sykes(KS test)
  - C. ELISA
  - D. Membrane filtration
  - E. Salmonellosis.
8. Answer any **Five** of the following :(two to three sentences) 10
  - A. Difference between B cell and T cell
  - B. What is significance of *Streptococcus fecalis* in water?
  - C. What is the function of chlorine in water?
  - D. Define (a) epitope (b) inflammation
  - E. Write full forms of (a) ELISA (b) Ig
  - F. Define cold sterilization.