

आयुर्वेद शिक्षण एवं अनुसंधान संस्थान, जामनगर

B. PHARM. (AYU.) SECOND YEAR EXAMINATION - February - 2025

RASASHASTRA AND BHAISHAJYA KALPANA - II (AYURVEDIC PHARMACEUTICS)

Date : 11/02/2025

Tuesday

Time : 03:00 P.M. - 06:00 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 *Guggulu Kalpana*. Explain *Guggulu Shodhana*, general method of 10 preparation, packaging and storage of *Guggulu Kalpa*.
2. Define *Churna*. Describe the ingredients, method of preparation, dose, use, shelf- 10 life, packaging and storage of *Hingvashtaka Churna*.

OR

Define *Vati*. Explain its synonyms, importance, types, general method of preparation and current trends.

3. Write short notes on any **Four** of the following : 20
 - A. Difference between *Sharkara Kalpana* and *Panaka Kalpana*
 - B. *Vasa Avaleha*
 - C. *Avaleha Siddhi Lakshana*.
 - D. *Chandrodaya Varti*
 - E. *Vyoshadi Vati*
4. Answer any **Five** of the following :(two to three sentences) 10
 - A. Write the Ingredients and use of *Simhanada Guguulu*.
 - B. Write the ingredients and shelf-life of *Mudvika Avaleha*.
 - C. Write the definition of *Avaleha Kalpana*.
 - D. Write the indication of *Guduchi Satva*.
 - E. Write the ingredients of *Shitopaladi Churna* with their proportion.
 - F. Write the general dose and *Anupana* of *Avaleha Kalpana*.

SECTION-B

5. What is *Marana*? What is its importance in the field of Rasashastra. Explain general 10 method of *Marana*.
6. Enumerate *Maharasa Dravya*. Explain Types, *Grahya Lakshana*, *Shodhana* and 10 *Marana* of *Abhraka*.

OR

Explain *Bhasma Parikshas* in detail.

7. Write short notes on any **Four** of the following : 20
 - A. *Parpati Paka Pariksha*.
 - B. Concept of *Satvapatana*.
 - C. *Hingulottha Parada*.
 - D. *Tribhuvankirti Rasa*
 - E. Enumerate *Ashta Samskaras* of *Parada*. Explain 2nd *Samskara* of *Parada*.
8. Answer any **Five** of the following :(two to three sentences) 10
 - A. Write the dose and colour of *Makshika Bhasma*.
 - B. Write any two formulations of *Shilajita*.
 - C. Write the dose and ingredients of *Shweta Parpati*.
 - D. Write the definition of *Amritikarana*.
 - E. Write about *Vikara Nivarana* of *Tuttha*.
 - F. Write the definition of *Shodhana*.

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B. PHARM. (AYU.) SECOND YEAR EXAMINATION - February - 2025

DRAVYAGUNA - I

Date : 12/02/2025
Wednesday

Time : 03:00 P.M. - 06:00 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 *Gurvadi Guna* in detail. 10
2. Discuss *Vipaka* in detail. 10

OR

Define *Veerya* and discuss its types and effect on *Dosha*, *Dhatu* and *Mala*.

3. Write short notes on any **Four** of the following: 20
 - A. *Shukrastambhana* and *Shukrarchana*.
 - B. Explain types of *Rasas* with examples and its effect on *Dhatu*.
 - C. Discuss *Rasayana Karma* in detail.
 - D. Classification of *Ahara Dravya* according to *Acharya Charaka*.
 - E. *Chedana* and *Bhedana*.
4. Answer any **Five** of the following :(two to three sentences) 10
 - A. Enlist *Saptapadartha*.
 - B. Define *Dravyaguna Vigyana*.
 - C. *Anulomana*.
 - D. *Karya-Karana Bheda*
 - E. Define *Dravya*
 - F. Write name of any four groups from *Charaka Dashemani*.

SECTION-B

5. Discuss *Amalaki* in detail. 10
6. Write botanical name, family, any two synonyms, part used and dose of *Eranda* & *Bhringaraja*. 10

OR

Discuss *Arjuna* in detail.

7. Write short notes on any **Four** of the following: 20
 - A. *Kantakapanchamoola*
 - B. *Laghupanchamoola*
 - C. *Vallipanchamoola*
 - D. *Panchakola*
 - E. *Trunapanchamoola*
8. Answer any **Five** of the following :(Write Botanical name, Family, Part Used and single main action.) 10
 - A. *Jayanti*
 - B. *Mundi*
 - C. *Varahikanda*
 - D. *Ketaki*
 - E. *Babool*
 - F. *Vikankat*

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B. PHARM. (AYU.) SECOND YEAR EXAMINATION - February - 2025
PHARMACOGNOSY OF AYURVEDIC DRUGS - I

Date : 13/02/2025
Thursday

Time : 03:00 P.M. - 06:00 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 various shapes of leaf with suitable examples. 10
2. Answer any one out of two questions. 10
- A Describe the diagnostic characters of Solanaceae plant family and give the morphological characters of any one medicinal plant belong to it.
- OR**
- B Discuss Tissue Culture as a source of drugs.
3. Write short notes on any **Four** of the following : 20
 - A. Give an account on modification of Stem.
 - B. Simple Fruit.
 - C. Give botanical description on plant Kumari.
 - D. Sexual method of propagation with advantages and disadvantages.
 - E. Storage of Drugs
4. Answer any **Five** of the following :(two to three sentences) 10
 - A. What is stem?
 - B. What do u mean by Berry?
 - C. Spray dryers
 - D. Family Key of Malvaceae
 - E. What is Ovule? Give its types.
 - F. Uses of Guduchi.

SECTION-B

5. What is tissues & discuss its various types. 10
6. Answer any one out of two questions. 10
- A Discuss in detail Ayurved system of medicine.
- OR**
- B What are carbohydrates? Give detail classification of carbohydrates with suitable examples.
7. Write short notes on any **Four** of the following : 20
 - A. Unani system of medicine.
 - B. Discuss epidermis & cork in detail.
 - C. Pharmacological classification of crude drugs.
 - D. What is monocot root? Draw diagrammatic section of it, label & describe it in short.
 - E. Identification tests for carbohydrates
8. Answer any **Five** of the following :(two to three sentences) 10
 - A. What is Pharmacognosy?
 - B. What is Crude drug?
 - C. What is Endosperm?
 - D. Give botanical source and Family of Chandrasura
 - E. Identify test for mucilage and uses.
 - F. What is Homeopathy?

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B. PHARM. (AYU.) SECOND YEAR EXAMINATION - February - 2025

PHARMACEUTICAL BIOCHEMISTRY

Date : 14/02/2025
Friday

Time : 03:00 P.M. - 06:00 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 with suitable examples classify carbohydrates. 10
2. With suitable examples, describe in detail the passive transport mechanism. 10

OR

With a labelled diagram, describe the structure and functions of mitochondria and chloroplast. Explain symbiont hypothesis.

3. Write short notes on any **Four** of the following : 20
 - A. Mutarotation
 - B. Competitive inhibition
 - C. DNA packaging
 - D. Theories of substrate binding to active site
 - E. Structure and functions of Nucleus and lysosome
4. Answer any **Five** of the following :(two to three sentences) 10
 - A. Define epimers. Give examples.
 - B. What are centrioles? Write their role in the cell.
 - C. Define Beer's and Lambert's law.
 - D. What is a multienzyme complex? Give examples.
 - E. Write the principle of working of electrophoresis technique.
 - F. Define nucleotide. Give examples.

SECTION-B

5. Define xenobiotics. Write in detail type I and type II reactions. 10
6. Write a note on fatty acid oxidation. 10

OR

Describe in detail the cause, symptoms, types and biochemical derangements seen in Gout.

7. Write short notes on any **Four** of the following : 20
 - A. Vitamin C
 - B. Atherosclerosis
 - C. Chlorine as a micronutrient
 - D. Importance of PPP
 - E. Cori cycle
8. Answer any **Five** of the following :(two to three sentences) 10
 - A. Why deficiency of vitamin K is not so common?
 - B. What are heavy metals? Give examples.
 - C. Name the organelle /s where these metabolic pathways occur: a. Glycolysis b. TCA
 - D. What is PEM? Give examples.
 - E. What is night blindness?
 - F. Name the pathways that conduct oxidation of NADH. How many ATPs are synthesised when one molecule of NADH is oxidised?

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B. PHARM. (AYU.) SECOND YEAR EXAMINATION - February - 2025
PHYSICAL PHARMACY AND PHARMACEUTICS

Date : 15/02/2025
Saturday

Time : 03:00 P.M. - 06:00 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 in details types of flow of liquid with rheogram ,and mechanism of action ? 10
2. Explain second law of thermodynamics in detail? 10

OR

Why physical properties of matter is important in physical pharmacy?

3. Write short notes on any **Four** of the following : 20
 - A. Difference between molecularity and order of reaction
 - B. Application of chemical kinetics
 - C. Thermochemistry
 - D. Optical activity
 - E. Factors affecting viscosity
4. Answer any **Five** of the following :(two to three sentences) 10
 - A. Refractive index
 - B. Viscometer
 - C. Types of solutions
 - D. Rate of reaction
 - E. Freezing point
 - F. Sublimation

SECTION-B

5. Discuss Interfacial properties of suspended particles/globules, settling in suspensions and theory of sedimentation in detail? 10
6. Discuss Methods of determination of surface tensions and factors affecting of surface tension in detail? 10

OR

Define emulsion discuss their types, theories, physical stability in detail?

7. Write short notes on any **Four** of the following : 20
 - A. Properties of powders
 - B. Factors affecting flow property of powder
 - C. Classification of colloidal dispersion
 - D. Identification tests for emulsion
 - E. Application of surfactants
8. Answer any **Five** of the following :(two to three sentences) 10
 - A. Importance of density
 - B. Emulsifying agents
 - C. Suspending agent
 - D. Lyophobic colloids
 - E. Relative density
 - F. Suspension

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B. PHARM. (AYU.) SECOND YEAR EXAMINATION - February - 2025
PHARMACEUTICAL ANALYSIS OF AYURVEDIC DRUGS

Date : 17/02/2025
Monday

Time : 03:00 P.M. - 06:00 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 different sampling methods. 10
2. What is saponification? Explain determination of saponification value in oil. 10

OR

Explain determination of weight variation and friability of tablets.

3. Write short notes on any **Four** of the following : 20
 - A. Define and classify oils and fats.
 - B. Explain determination of foreign matter.
 - C. Describe iodine value determination in oil
 - D. How to determine disintegration time in tablet? Explain in brief.
 - E. Explain determination of specific gravity in liquid sample.
4. Answer any **Five** of the following :(two to three sentences) 10
 - A. Name any four instruments used for determination of Hardness of tablets.
 - B. Give significance of Acid value.
 - C. Write importance of sampling.
 - D. Define refractive index.
 - E. Enlist different parameter used for estimation of churna.
 - F. Define peroxide value.

SECTION-B

5. Explain total sugar estimation in Vasavleha preparation. 10
6. Describe methods for different extractive values in paka preparations. 10

OR

Explain qualitative estimation of mercury in bhasma.

7. Write short notes on any **Four** of the following : 20
 - A. Explain quantitative estimation of calcium in Sankh bhasma.
 - B. Explain determination of moisture content in avleha preparation.
 - C. Describe pH value determination.
 - D. How to determine alcohol content in arista preparation? Explain.
 - E. Explain Ash value determination.
8. Answer any **Five** of the following :(two to three sentences) 10
 - A. Write difference between reducing and non-reducing sugars.
 - B. Write any two qualitative test for Fe.
 - C. Enlist the different parameters used for estimation of Asava preparation.
 - D. Name the apparatus used for the estimation of volatile oil.
 - E. Write any four instruments used for estimation of refractive index.
 - F. Define Kshara with examples.

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PHARMACEUTICAL MICROBIOLOGY

Date : 18/02/2025

Tuesday

Time : 03:00 P.M. - 06:00 P.M.

Marks : 100

- Instructions: 1. Every question is compulsory.
2. Every question bears the marks written on the right side.

SECTION-A

1. Father of microbiology & his contribution. 10
2. Difference between transformation and transduction. 10

OR

Enumerate the different bacterial structures (external & internal).
Write function of capsule with an example of capsulated gram positive bacteria & gram negative bacteria

3. Write short notes on any **Four** of the following : 20
 - A. Only list different parameters used for Identification of bacteria.
 - B. Brief out morphological classification of fungi.
 - C. Full form of PCR & in brief about its application.
 - D. Define Enriched & Enrichment Media; give example of both types of media.
 - E. Different four arrangements of Flagella & its function.
4. Answer any **Five** of the following :(two to three sentences) 10
 - A. Which fermenter should provide the best possible growth conditions to industrial strains? Give 02 basics function of that fermenter.
 - B. Full form of Hfr conjugation.
 - C. Which two basic cultivation method of bacteria are depends on oxygen requirement?
 - D. Give four example of liquid sugar media required for confirmation of microbes.
 - E. What is full for of CONS & COPS on the basis of coagulase test?
 - F. What is elaborate biochemical test name of IMViC test?

SECTION-B

5. Define Sterilization. Enlist various physical & chemical sterilization methods & discuss in detail about heat & radiation. 10
6. What is immunity? Define antigen & write in detail about properties of antigen. 10

OR

Define antigen-antibody reactions. Enumerate different Ag-Ab reactions & write in detail about Agglutination reactions.

7. Write short notes on any **Four** of the following : 20
 - A. Write in brief about validation & sterilization process.
 - B. Write about five Types of antibody.
 - C. Write in brief about autoimmune disease.
 - D. What is Food borne infection & Food borne intoxication?
 - E. Define Disinfection & factors affecting disinfection.
8. Answer any **Five** of the following :(two to three sentences) 10
 - A. Full form of ELISA & RIA
 - B. Crude drug are classified in which different ways? (write any 02)
 - C. Write name of basic 02 types of immunity.
 - D. What is full form of ABST? Give one example of antibiotic.
 - E. Give example of bacteriostatic agent & bactericidal agent.
 - F. What is precipitation test?
