

आयुर्वेद शिक्षण एवं अनुसंधान संस्थान, जामनगर

B. PHARM. (AYU.) SECOND YEAR EXAMINATION - August - 2024

RASASHASTRA AND BHAISHAJYA KALPANA - II(AYURVEDIC PHARMACEUTICS)

Date : 20/08/2024

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

Tuesday

Marks : 100

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

SECTION-A

1. What is *Churna Kalpana*? Explain its types, method of preparation, dose, storage and packaging. 10
2. Define *Avaleha Kalpana*. Explain its importance, *Paka Pariksha*, dose, shelf-life, *Anupana* and current trends. 10

OR

Define *Vati Kalpana*. Explain its general method of preparation, Packaging, storage and current trends.

3. Write short notes on any **Four** of the following : 20
 - A. *Mudvika Avaleha*
 - B. *Shakhapushpi Sharkara*
 - C. *Simhanada Guggulu*
 - D. *Varti Kalpana*
 - E. *Gudapaka Kalpana*
4. Answer any **Five** of the following :(two to three sentences) 10
 - A. Write the Ingredients and use of *Higvashtaka Churna*.
 - B. Write the ingredients and shelf-life of *Triphala Guggulu*.
 - C. Write the definition of *Panaka Kalpana*.
 - D. Write the indication of *Chandrodaya Varti*.
 - E. Write the ingredients of *Vasavaleha* with their proportion.
 - F. Write the dose and shelf-life of *Guduchi Satva*.

SECTION-B

5. Define *Shodhana*. Explain its concept along with different methods of *Shodhana*. 10
6. Define *Parpati*. Explain its types, importance, method of preparation and *Paka Pariksha*. 10

OR

What is the importance of *Hingulottha Parada*? Explain the method of *Hingulottha Parada* in detail.

7. Write short notes on any **Four** of the following : 20
 - A. *Shilajita Shodhana*
 - B. Concept of *Jarana*.
 - C. *Patana Samskara* of *Parada*.
 - D. *Tamra Parpati*
 - E. *Kajjali*
8. Answer any **Five** of the following :(two to three sentences) 10
 - A. Write the *Grahya Lakshana* of *Makshika*.
 - B. *Apunarbhava Bhasma Pariksha*.
 - C. Write the *Bhavana Draaya* of *Laghuvasanta Malati Rasa*.
 - D. Write the definition of *Marana*.
 - E. Write about *Vikara Nivarana* of *Makshika*.
 - F. Write the aim of *Mardana Samskara*.

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B. PHARM. (AYU.) SECOND YEAR EXAMINATION - August - 2024
PHARMACEUTICAL BIOCHEMISTRY

Date : 23/08/2024

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

Friday

Marks : 100

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

SECTION-A

1. Write the structural and functional details of mitochondria. Explain the symbiont hypothesis. 10
 2. Define and classify lipids. 10
- OR**
- Write differences between prokaryotes and eukaryotes.
3. Write short notes on any **Four** of the following : 20
 - A. Electrophoresis technique
 - B. Heteropolysaccharides
 - C. Factors effecting enzyme activity
 - D. Fluid mosaic model
 - E. pI value of amino acids
 4. Answer any **Five** of the following :(two to three sentences) 10
 - A. What are reducing sugars? Give examples.
 - B. What are essential amino acids? Give examples.
 - C. Write the full form of : a. DNA b. Km
 - D. What is direct active transport? Give example.
 - E. Define Beer's and Lambert's law.
 - F. What is the importance of hyaluronic acid in the body?

SECTION-B

5. Write a short note on Gluconeogenesis. 10
 6. Write a short on Vitamin C. 10
- OR**
- Write a short note on Obesity.
7. Write short notes on any **Four** of the following : 20
 - A. Fates of pyruvate
 - B. Vitamin E
 - C. Gout
 - D. F_1-F_0 ATP synthase
 - E. Phase II reactions
 8. Answer any **Five** of the following :(two to three sentences) 10
 - A. What are the typical symptoms seen in diabetes.
 - B. Write full forms of : a. HMP shunt b. PLP
 - C. What are the coenzyme forms of : a. Niacin b. Pantothenic acid
 - D. What causes Marasmus?
 - E. What is the site for : a. Beta oxidation b. Glycogenesis
 - F. Why the deficiency of vitamin K is not so common?

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B. PHARM. (AYU.) SECOND YEAR EXAMINATION - August - 2024

DRAVYAGUNA - I

Date : 21/08/2024

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

Wednesday

Marks : 100

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

SECTION-A

1. Explain *Veerya* in detail. 10
2. Define *Dravyaguna Shastra* and its importance in detail. 10

OR

Explain *Gurvadi Gunas* in detail.

3. Write short notes on any **Four** of the following : 20
A. Discuss *Vamana karma* and *Virechana karma*.
B. Discuss the effect of six *Rasas* on *Dosha*, *Dhatu* and *Mala*.
C. Write a short note on *Vipaka*.
D. Write the classification of *Ahara Dravya* according to *Acharya Shushruta*.
E. Define *Madakari karma* and *Medhya karma*.
4. Answer any **Five** of the following :(two to three sentences) 10
A. *Dahaprashamana*
B. Enlist *Paradi Gunas*.
C. *Kandughna*
D. Define *Prabhava* with one example.
E. *Chakshushya*
F. *Shukrastambhana*

SECTION-B

5. Discuss the plant *Haritaki* in detail. 10
6. Write a detailed description of *Ashwagandha*. 10

OR

Write a short note about any two *Deepan dravyas*.

7. Write short notes on any **Four** of the following : 20
A. *Kantakapanchamoola*
B. *Trunapanchamoola*
C. *Brihatpanchamoola*
D. *Panchakola*
E. Write the part used and uses of *Eladwaya*.
8. Answer any **Five** of the following :(write the botanical name, single main action, *Veerya* and part used) 10
A. *Madyantika*
B. *Vansha*
C. *Mundi*
D. *Sringataka*
E. *Puga*
F. *Amra*

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B. PHARM. (AYU.) SECOND YEAR EXAMINATION - August - 2024
PHARMACOGNOSY OF AYURVEDIC DRUGS - I

Date : 22/08/2024

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

Thursday

Marks : 100

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

SECTION-A

1. Detail note on Plant kingdom. 10
2. Mineral as source of Drugs. 10

OR

Factors affecting quality of drugs.

3. Write short notes on any **Four** of the following : 20
A. Brief account on tissue culture.
B. Morphological difference between Monocot and Dicot.
C. Modification of stem
D. Classification of leaf.
E. Write short note on pteridophytes.
4. Answer any **Five** of the following :(two to three sentences) 10
A. What is bark?
B. What do you mean by Binomial Nomenclature?
C. What is leaf?
D. What is Stomata?
E. What is ovule? And explain its types.
F. What is starch grains?

SECTION-B

5. Define pharmacognosy & discuss its scope in detail. 10
6. Define seed. Name the Carbohydrates containing seed drugs which you have studied this year. Described the histological characters of one seed drug 10

OR

Discuss various Indian system of medicine.

7. Write short notes on any **Four** of the following : 20
A. Alphabetical classification of crude drugs
B. Brihat gokshur
C. Kumari
D. Mocharasa
E. Stomata of Vasaka and Datura
8. Answer any **Five** of the following :(two to three sentences) 10
A. Define unorganized drugs.
B. Parenchyma.
C. Give Botanical source, family, parts used and uses of Babbula.
D. Karaya gum uses
E. Guduchi Satva
F. What is Homeopathy?

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B. PHARM. (AYU.) SECOND YEAR EXAMINATION - August - 2024

PHYSICAL PHARMACY AND PHARMACEUTICS

Date : 24/08/2024

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

Saturday

Marks : 100

Instructions: 1. Every question is compulsory.

2. Every question bears the marks written on the right side.

SECTION-A

1. Define viscosity. Discuss various methods to determine viscosity. 10
2. Answer any one out of two questions. 10
 - A. Describe the types of solution and effect of temperature and pressure on solubility.
 - B. Explain types of flow of liquids with rheograms, mechanisms and suitable examples.
3. Write a short note on any **Four** of the following : 20
 - A. Optical properties of colloids
 - B. Application of chemical kinetics
 - C. Thermochemistry
 - D. Write the principal & working of Ostwald viscometer
 - E. Factors affecting viscosity
4. Answer any **Five** of the following : (two to three sentences) 10
 - A. Concentration units
 - B. Refractive index
 - C. Define Rheology
 - D. Name of any two Thixotropic agents
 - E. Define chemical kinetics
 - F. Osmosis

SECTION-B

5. Describe any two methods to determine particles size in a powder. 10
6. Answer any one out of two questions. 10
 - A. Explain in detail the term interfacial tension and their factors affecting.
 - B. What are Lyophobic colloids? Describe various methods for the preparation of Lyophobic colloids.
7. Write a short note on any **Four** of the following : 20
 - A. What are methods of particle size determination ?
 - B. Methods to determine surface tension of liquids.
 - C. Application of surface active agents
 - D. Types of colloidal dispersions
 - E. Derived properties of powders
8. Answer any **Five** of the following : (two to three sentences) 10
 - A. Adsorption
 - B. Suspension
 - C. Dispersion Medium
 - D. Dispersion system
 - E. Micromeritics
 - F. Absorption

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B. PHARM. (AYU.) SECOND YEAR EXAMINATION - August - 2024

PHARMACEUTICAL ANALYSIS OF AYURVEDIC DRUGS

Date : 27/08/2024

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

Tuesday

Marks : 100

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

SECTION-A

1. Enlist different types of physico-chemical parameters used for evaluation of Churna and explain any three methods. 10
2. Answer any one out of two questions. 10
- A Define Sampling. Explain sampling of herbs having batch size more than 100 kg and less than 100 kg.

OR

- B Define Iodine value and explain its method of determination.
3. Write short notes on any **Four** of the following : 20
 - A. Saponification value.
 - B. Specific gravity.
 - C. Sampling methods for tablet and pills.
 - D. RMPK value.
 - E. Disintegration test for tablet.
4. Answer any **Five** of the following :(two to three sentences) 10
 - A. Name the instrument used for estimation of volatile oil.
 - B. Importance of Acid value.
 - C. Define ash value.
 - D. Name instruments used for determination hardness of tablet.
 - E. Define moisture content.
 - F. Define foreign matter.

SECTION-B

5. Explain different types of extractive value in Avaleha and Paka preparation. 10
6. Answer any one out of two questions. 10
- A Explain estimation of iron in Lohbhashma.

OR

- B Define Reducing sugar and explain its estimation.
7. Write short notes on any **Four** of the following : 20
 - A. Total solid content in Asava and Arista preparation.
 - B. Estimation of Sodium and Potassium.
 - C. Explain estimation of alcohol content Ashava.
 - D. Explain determination of moisture content in Avaleha.
 - E. Why pH determination is important in Asava and Arista preparation? Explain its determination.
8. Answer any **Five** of the following :(two to three sentences) 10
 - A. Give qualitative test for Mercury.
 - B. Explain Killer Killani test for sugar.
 - C. Give different instruments use for determination of Refractive index.
 - D. Give difference between Avleha and Paka
 - E. Define Kshara with examples.
 - F. Give four examples of Ashava and Arishta containing volatile oil.

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B. PHARM. (AYU.) SECOND YEAR EXAMINATION - August - 2024

PHARMACEUTICAL MICROBIOLOGY

Date : 28/08/2024

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

Wednesday

Marks : 100

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

SECTION-A

1. Classify bacteria on the basis of size, shape, arrangement, oxygen requirement, metabolism and temperature. 10

2. Who is the father of Microbiology? Enumerate his contributions. 10

OR

Explain principle and application of dark background microscopy

3. Write short notes on any **Four** of the following : 20

- Structure of bacterial cell wall.
- Explain principle of light microscope.
- What is the principle of Tyndallization and Pasteurization?
- Define PCR. What are its uses. Mention different types of PCR.
- Salient features of fungi.

4. Answer any **Five** of the following :(two to three sentences) 10

- Give examples of viruses which cause diseases in human beings?
- Define fermentation.
- Why thermophilic bacteria can tolerate high temperatures ?
- Why anaerobic bacteria cannot grow in presence of atmospheric oxygen?
- Define enriched media? Give two examples
- What is the function of pilli?

SECTION-B

5. Describe drug sensitivity test and resistance. 10

6. Which are the methods for sterility testing of different pharmaceutical products? 10

OR

Why validation is required ? How is validation carried out?

7. Write short notes on any **Four** of the following: 20

- Microbial flora of fresh food.
- Explain methods of plasmid transfer with respect to drug resistance.
- Agglutination reactions.
- Membrane filtration.
- Fermentation and its applications in ayurved pharmaceutical industry.

8. Answer any **Five** of the following :(two to three sentences) 10

- Give example of two antifungal and two antimicrobial agents.
- What is significance of *Streptococcus fecalis* in water?
- Which are the reactions responsible for spoilage of food?
- Name two gases used as chemical sterilizers.
- Difference between B cell and T cell.
- Give two examples of useful fungi.
