

आयुर्वेद शिक्षण एवं अनुसंधान संस्थान, जामनगर

B. Pharm(Ayu.) First Year Examination : April-2024

Pharmaceutical Chemistry (Organic)

Date: 23-04-2024
Tuesday

Time: 10:00 A.M. to 01:00 P.M.
Marks: 100

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

SECTION-A

1. What is thioether? Give preparation & properties of it. 10
2. Answer any one out of two questions. 10
- A Give structure of following. (any five)
1) Formaldehyde 2) Pentene-2, 4-Dione 3) Nitro methane 4) Cyclopentane 5) Toluene 6) 2-Naphthol
- OR
- B Explain orbital quantum numbers.
3. Write short notes on any **Four** of the following : 20
 - A. Give properties and uses thioalcohol
 - B. Enantiomer and Diastereomer
 - C. V.B. theory
 - D. Geometric isomers
 - E. Racemization
4. Answer any **Five** of the following :(two to three sentences) 10
 - A. Define Inductive effect
 - B. Define H Bond
 - C. Define acid and base according to Bronsted Lowry theory
 - D. Define Mesocompound
 - E. Give 2 Compounds of Thiocompounds of each class
 - F. Give IUPAC name of Glycerol & Acetic acid

SECTION-B

5. Define substitution reaction mechanism. Explain SN1 reaction. 10
6. Answer any one out of two questions. 10
- A Define α - β unsaturated carbonyl compounds. Explain methods preparation and chemical Reactions.
- OR
- B Explain preparation, properties and uses of Alkene.
7. Write short notes on any **Four** of the following : 20
 - A. Types of organic reactions
 - B. Bond fission and formation of bond
 - C. Electrophile and Nucleophile
 - D. Define Carboxylic acid. Explain its chemical properties
 - E. SNAr mechanism
8. Answer any **Five** of the following :(two to three sentences) 10
 - A. Define resonance
 - B. Explain Elimination reaction
 - C. Define carbonium ion
 - D. Define organic reaction mechanism
 - E. Give uses of Alcohol
 - F. Give structure of Acrolin and Cinnamic acid

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B. Pharm(Ayu.) First Year Examination : April-2024

Fundamentals of Ayurveda Including Swasthavritta

Date: 22-04-2024
Monday

Time: 10:00 A.M. to 01:00 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 about Pratyaksha Praman. 10
2. What is Brihatrayi? Explain about Sushruta Samhita and its contribution in development pharmaceutical science. 10

OR

Explain about concept of Panchmahabhuta

3. Write short notes on any **Four** of the following 20
 - A. Madhavnidan
 - B. Ashtang Ayurveda
 - C. Classification of Karan dravya and karya dravya.
 - D. Aptopadesh Pramana
 - E. Gurvadi gunas.
4. Answer any **Five** of the following :(two to three sentences) 10
 - A. Write definition of Ayu.
 - B. Write definition of Karma.
 - C. Enlist Shad padarth.
 - D. Write definition of Yukti praman.
 - E. What is Laghutrayi ?
 - F. Write definition of Anumana praman.

SECTION-B

5. Write an essay on Dinacharya. 10
 6. Write about Grishma rutu charya. 10
- OR
- Explain about occupational health hazards.
7. Write short notes on any **Four** of the following : 20
 - A. National STD control Programme.
 - B. Adharniya Vegas.
 - C. Sources and functions of Vitamins
 - D. Sadvrita
 - E. Explain about factory act.
 8. Answer any **Five** of the following :(two to three sentences) 10
 - A. Full form of RCH.
 - B. Sources of fat.
 - C. Write definition of Vyayam
 - D. Write benefits of Snana.
 - E. Enlist Dharniya vegas.
 - F. Write functions of Vitamin – D

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B. Pharm(Ayu.) First Year Examination : April-2024

Rasashastra & Bhaishajya Kalpana – I (Ayurvedic Pharmaceutics)

Date: 24-04-2024
Wednesday

Time: 10:00 A.M. to 01:00 P.M.
Marks: 100

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

SECTION-A

1. What is the meaning of *Kashaya Kalpana*? Describe *Swarasa Kalpana* in detail with example. 10
2. Answer any one out of two questions. 10
 - A Give details of ancient measurement system (*Mana Paribhasha*).
 - B Describe the principles of drug collection and storage.
3. Write short notes on any **Four** of the following : 20
 - A. *Shadanga Paniya*.
 - B. Write a short note on *Saveeryata Avadhi*.
 - C. Describe *Kalka Kalpana* in brief.
 - D. *Arjuna Ksheerapaka*.
 - E. Mention difference between *Kwatha Kalpana* and *Pramathya Kalpana*.
4. Answer any **Five** of the following : 10
 - A. Shelf-life and dose of *Kalka Kalpana*.
 - B. Give any two indications of *Dhanyakadi Hima*.
 - C. Definition of *Bhaishajya Kalpana*.
 - D. *Tandulodaka*
 - E. What is the proportion of drug and water in *Phanta Kalpana*?
 - F. What is the dose and use of *Kharjuradi Mantha*?

SECTION-B

5. Define the term “*Yantra*”. Explain *Trividha Patana Yantra* in detail with diagram. 10
6. Answer any one out of two questions. 10
 - A Describe the concept of *Rasa Shala* according to *Ayurvedic* perspective.
 - B What is “*Putra*”? What is the importance of *Putra* in *Rasa Shastra*? Describe *Gaja Putra* in detail.
7. Write short notes on any **Four** of the following : 20
 - A. Write a short note on *Valuka Yantra*.
 - B. *Kajjali*
 - C. Write any one process of *Parada Samanya Shodhana*.
 - D. *Maha Putra*
 - E. *Vajra Musha*
8. Answer any **Five** of the following : 10
 - A. *Dhanvantari Bhag*
 - B. *Nirvapa*
 - C. *Panchamrit*
 - D. *Lavana Panchaka*
 - E. Enumerate *Uparasa*
 - F. Enumerate *Dhatu Varga*

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B. Pharm(Ayu.) First Year Examination : April-2024

Pharmaceutical Chemistry (Inorganic)

Date: 25-04-2024
Thursday

Time: 10:00 A.M. to 01:00 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 Complexometric titration. 10

2. Discuss limit test for Heavy metals 10

OR

Define Limit test Explain limit test for chloride with suitable example.

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

- Explain Mendeleeff's periodic law.
- Give difference between primary and secondary standard substances.
- Define buffer solution and explain in detail Henderson-Hasselbach equation for buffer.
- Discuss the factors affecting selection of Pharmaceutical buffers and name any two physiological buffers.
- Give the difference between Iodometric and Iodimetric method.

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

- Draw the diagram of Gutzeit's test apparatus.
- Which elements are known as alkali metals?
- Define Standard Solution.
- What is Buffer capacity.
- How will you prepare starch solution?
- Why citric acid is used in limit test for Iron?

SECTION-B

5. Explain assay and uses of Borax. 10

6. Explain Hypophosphorous acid as an antioxidant. 10

OR

Explain Precipitation, Filtration, Washing of precipitate in Gravimetric analysis.

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

- Give occurrence, properties, and uses of Calcium (Ca).
- Give properties of ammonium chloride.
- Write different criteria to act as an antioxidant.
- Discuss differences between Volumetric analysis and Gravimetric analysis.
- Explain estimation of Aluminum from Alum.

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

- Give occurrence of Copper (Cu).
- Give the uses of antioxidant.
- Define Coagulation.
- Give uses of Gold (Au)
- What is Post precipitation?
- Draw structure of Borax.

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B. Pharm(Ayu.) First Year Examination : April-2024

Sharira (Anatomy & Physiology)

Date: 26-04-2024
Friday

Time: 10:00 A.M. to 01:00 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 Bone and explain the classification of bone as per modern science 10
2. Answer any one out of two questions. 10
 - A Explain the location, measurement & external features of Stomach
- OR**
- B Explain Masanumasika garbha vridhhi according to ayurveda
3. Write short notes on any **Four** of the following : 20
 - A. Describe the nine regions of abdomen with figure
 - B. Rasanendriya
 - C. Classification of srotas
 - D. Enlist the components of a cell with figure
 - E. Thalamus.
4. Answer any **Five** of the following :(two to three sentences) 10
 - A. Define koshta
 - B. Write the divisions of urethra
 - C. Define garbha
 - D. Enlist the structures of cardiovascular system
 - E. Location of pituitary gland
 - F. Divisions of nervous system

SECTION-B

5. Explain "Dosha dhatu mala mulam hi shariram" 10
6. Answer any one out of two questions. 10
 - A Describe agni and modern concept of digestion.
- OR**
- B Explain 'vyadhikshamatwa'
7. Write short notes on any **Four** of the following : 20
 - A. Write the guna, karma, sthana and types of pitta dosha
 - B. Types and functions of Snayu
 - C. Functions of blood.
 - D. Ek-kala dhatuposhananyaya
 - E. Ojo vikriti
8. Answer any **Five** of the following :(two to three sentences) 10
 - A. Define mala
 - B. Enlist the composition of blood
 - C. Function of alochaka pitta
 - D. Enlist dhatu and its mala
 - E. Define vipaka
 - F. Functions of cardiovascular system

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B. Pharm(Ayu.) First Year Examination : April-2024

Sanskrit

Date: 27-04-2024
Saturday

Time: 10:00 A.M. to 12:00 P.M.
Marks: 50

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

1. सभी विभक्तियों के नाम लिखिए और पंचमी विभक्ति को सविस्तारपूर्वक समझाईए । 10

2. "लुब्धविप्रवृद्धव्याघ्र" कथा का वर्णन अपने शब्दों में करें । 10

OR

"माहेश्वरसूत्र" लिखिए तथा अच् और हल् प्रत्याहार को स्पष्ट कीजिए ।

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

A. संधि कीजिए ।

१. सुर + ईशः २. लता + इव ३. सप्त + ऋषिः ४. गंगा + उदकम्
५. सुधी + उपास्य

B. निम्नलिखित शब्दों का अर्थ बताते हुए वाक्य प्रयोग कीजिए (कोई चार)

१. मम २. उभयतः ३. सह ४. बहिः ५. वयम्

C. निम्नलिखित नाम रूपों की पहचान दीजिए (कोई दो)

१. पितुः २. पित्रा ३. नद्यै

D. राम अथवा हरि शब्द के सभी विभक्तियाँ में रूप लिखिए ॥

E. निम्नलिखित धातु रूप लिखिए (कोई दो)

१. "पठ्" धातु लोट् लकार ।

२. "वद्" धातु लट् लकार ।

३. "पच्" धातु लृट् लकार ।

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

A. निम्नलिखित रूप परिचय दीजिए ।

१. रमया २. रमाभिः

B. स्वर - संधि की व्याख्या देकर उसे उदाहरण द्वारा समझाईए ।

C. संस्कृत वर्णमाला में कितने स्वर हैं ? सभी स्वर लिखिए ।

D. चतुर्थी विभक्ति के दो उदाहरण लिखिए ।

E. कथ् धातु का प्रयोग करके दो वाक्य बनाईए ।

F. क्रियापद किसे कहते हैं ?

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B. Pharm(Ayu.) First Year Examination : April-2024

English

Date: 29-04-2024
Monday

Time: 10:00 A.M. to 12:00 P.M.
Marks: 50

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

1. Choose the correct form of the verb from the given brackets. 05
- I have _____ John for a long time. (know, knew, knows, known)
 - The police _____ no stone unturned to catch the thieves. (leave, leaves, Left, leaving)
 - When I reached the station the train _____. (has left, had left, has been left, had been left)
 - Riya _____ television every night. (watches, watch, watching, watched)
 - Narendra Modi _____ in as the Prime Minister of India for the second time in a row. (swear, swore, sworn, was sworn)
2. Change the Voice. 05
- The player is taking extra time.
 - Who taught you this poem?
 - The smuggler was arrested by the police.
 - Children like sweets.
 - Everyone loves Zara
3. Choose the correct Modal verb from those given in the brackets. 05
- You _____ quit smoking.(should/would) (obligation)
 - You _____ pay for this. (will/can/may) (threat)
 - How _____ you call me names? (dare/will/shall) (challenge)
 - They _____ be here soon. (might/can/shall) (weak possibility)
 - She _____ not solve the problem. (could/might/should) (inability)
4. Choose the correct form of verbs from those give in the brackets. 05
- One of my friend _____ (went/goes/ gone) to Zambia recently.
 - He _____ (has been/have been/had been) writing a novel since October, and he is about to finish it.
 - I will call you when the guests _____ (arrive/arrives/ arrived).
 - Bernie _____ a meeting yesterday. (had/have/has)
 - Last night, while I was doing my homework, Angela _____ (Call/called/calling).
- 5.(A) Find out appropriate synonyms for underline words from the given in the brackets. 04
- Dave is the best player in the team.
a. action b. apple c. ace d. none of the above
 - You made a good decision there.
a. choice b. call c. catches d. none of the above
 - I was glad to hear that you liked my song.
a. Hopeful b. happy c. surprised d. disappointed
 - She had the arduous task of carrying all the language.
a. short b. expensive c. easy d. difficult
- 5(B) Find out appropriate antonyms for underline words from the given in the brackets. 04
- He loved to climb hills, the higher the better.
a. Lower b. flyer c. hight d. none of the above
 - Mistakes are an essential part of education.
a. Crucial b. major c. critical d. unimportant
 - I'll always remember this holiday.
a. Think b. realise c. forget d. recall
 - You have a rare ability among our kind.
a. Common b. dear c. unusual d. strange

[P.T.O.]

6. Write the appropriate phrasal verbs from given list.

07

[believe in, put out, turn down, throw away, take off, try on, look after]

- i. I need some new clothes. Why don't you _____ these jeans?
- ii. It's warm inside. _____ your coat.
- iii. This pencil is really old. You can _____ it _____.
- iv. It's so loud here. Can you _____ the radio a little?
- v. The firemen were able to _____ the fire in Church Street.
- vi. Does your little brother _____ ghosts?
- vii. My parents are out. So I have to _____ my baby-brother.

7. Write an essay in about 200 words on the following topic.

10

- A charity you engaged in during the pandemic
- Using a bicycle instead of a car improves your health and lowers your environmental impact
- How optimism influences your immunity

OR

7. Precise writing: reduce the text to one third and give appropriate title.

10

The noblest deeds that have been done on earth have not been done for gold. It was not for the sake of gold that Lord Jesus came down and died on the cross. The Spartans looked for no reward when they fought and died at Thermopylae. Socrates the wise asked for no pay from his countrymen but lived poor and barefooted all his days only caring to make them good and noble. And there are heroes even in our own days also who do noble deeds but not for gold.

Our discoverers did not go to make themselves rich when they sailed out one after another into the dreary frozen seas; nor did the ladies who went out to drudge in hospital of the East make themselves poor that they might be rich in noble work. (136 words)

8. Comprehension: Read the following paragraph carefully and answer the given questions at below:

05

I have a neighbour we call "Happy". I have never seen her angry at anything and never heard her say a mean word to anyone or about anyone.

Happy and her husband Ben, 70, have a huge garden. They spent many happy hours together working on it. Most of the neighbours watched interestingly as Ben doubled the size of their garden. As the cost of food climbed faster than Ben's beans, we all wished we also had such a large garden. As the rest of us spent our dollars at the market, Happy could be seen picking beans in her backyard.

Last month, Happy and Ben invited most of the neighbourhood over for an "all-day food fest". We were told to bring gloves and arrive very early in the morning. We didn't know what was about to take place.

By 9:00 am, there were nine of us in the garden picking tomatoes, beans, peppers, and cucumbers. By 10:00 am, there was lots of laughter. We had delicious food and shared a lot of stories. After dinner, we played games. As we were leaving, Happy and Ben handed each of us a shopping bag filled with the vegetables of the day, already packaged and frozen. What a delightful gift!

Well, the point wasn't so much about the food. The true gift was a day of friends enjoying one another's company. None of it would have happened if it had been for Happy and Ben's garden. Now they have a blog about gardening in case we decided to plant a garden. And I am so proud of my tomato plants!

Answer the following questions briefly.

1. Write a brief note on Happy and her husband Ben.
2. According to paragraph, people wish they also had a garden so that... (Complete the line)
3. For what purpose did Happy and Ben invite the neighbours to their garden?
4. What did the writer most probably think of the time he spent in the garden?
5. Give suitable title.
