

GUJARAT AYURVED UNIVERSITY

JAMNAGAR

B. Pharm(Ayu.) First Year Examination May-2014 (OLD SYLLABUS)

Pharmaceutical Chemistry (Organic)

Date: 23-05-2014
Friday

Time: 09:30 A.M. to 12:30 P.M.
Marks: 100

- Instructions : 1. Every question is compulsory.
2. Draw suitable diagrams wherever necessary.

SECTION-A

1. What is thioalcohol ? Give method of preparation, properties and uses of it. 10
2. Give structures of the following (any five). 10
- | | | |
|-----------------|---------------|------------------|
| 1. Formaldehyde | 2. Acetone | 3. Nitro methane |
| 4. 2-Pentene | 5. m-toludine | 6. Methanthiol |

OR

Define dipole moment give its application.

3. Answer any Four of the following : 20
- Define valance bond theory in brief.
 - Write down element of symmetry.
 - What is E-Z nomenclature ? Explain in brief.
 - Write note on optical isomerism.
 - Give note on racemic modification.
4. Answer any Five of the following : 10
- Explain formation of oxygen molecule.
 - Define staggered conformation.
 - Define Lewis acid and base.
 - Define stereochemistry.
 - Explain types of H-bond.
 - Define Orbital.

SECTION-B

5. Define SN_1 reaction. Write mechanism and raw energy profile diagram with 10 example.
6. Define resonance and resonance energy. Explain its effects. 10

OR

What is electrophile ? Explain in brief.

7. Answer any Four of the following : 20
- Give method of preparations of Alkyne.
 - Describe nucleophile in brief.
 - Write a short note on benzene mechanism.
 - Give two methods of preparations of aromatic alcohols.
 - Explain free radical reaction mechanism.
8. Answer any Five of the following : 10
- Give two examples of α, β unsaturated carbonyl compound.
 - Define addition reaction.
 - Define haemolytic fission.
 - Give uses of alkane.
 - Draw energy profile diagram of SN_2 reaction.
 - Define carbonium ion.

GUJARAT AYURVED UNIVERSITY

JAMNAGAR

B. Pharm(Ayu.) First Year Examination May-2014 (NEW SYLLABUS)

Rasashastra & Bhaishajya Kalpana – I

Date: 24-05-2014
Saturday

Time: 09:30 A.M. to 12:30 P.M.
Marks: 100

- Instructions : 1. Every question is compulsory.
2. Draw suitable diagrams wherever necessary.

SECTION-A

1. Define Saviryata Avadhi, state its importance and give Saviryata Avadhi of any five Kalpanas. 10
2. Describe Udaka Kalpana. 10

OR

Name the Panchavidha Kashaya Kalpana and describe Swarasa.

3. Write short note on any **Four** of the following : 20
A. Kshira Paka.
B. Laksha Rasa.
C. Importance of Mana Paribhasha.
D. Sudarshana Phanta.
E. Dashamula Kwatha.
4. Answer any **Five** of the following : 10
A. Dose and use of Kharjuradi Mantha.
B. Preperation method of Dhanyakadi Hima.
C. Ingredients of Shadanga Paniya.
D. Give two examples of Dravyas to be used in fresh state but need not to be taken in double quantity.
E. What should be done if a Dravya is mentioned twice in a formulation ?
F. State the best season for collection of Aushadha Dravya in general.

SECTION-B

5. Define Yantra and describe Dola Yantra and Patala Yantra. 10
6. Give classification of Rasa Dravya. 10

OR

Define Musha and describe any two.

7. Write short note on any **Four** of the following : 20
A. Varaha Puta.
B. Kajjali.
C. Grahya and Agrahya Parada.
D. Describe Avapa and Nirvapa. Giving an example of each.
E. Marana.
8. Answer any **Five** of the following : 10
A. State the equivalent of 1 Pala in Tola and grams.
B. Give full form of GMP.
C. State area required for manufacturing Avaleha as per GMP.
D. The Dravyas of Kshara Dravya.
E. Give symbol, English and Latin name of Parada.
F. Dravyas of Pancha Mrutika.

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JAMNAGAR

B. Pharm(Ayu.) First Year Examination May-2014 (NEW SYLLABUS)

Sharira (Anatomy & Physiology)

Date: 26-05-2014
Monday

Time: 09:30 A.M. to 12:30 P.M.
Marks: 100

- Instructions : 1. Every question is compulsory.
2. Draw suitable diagrams wherever necessary.

SECTION-A

1. Describe terms "Ritu", "Kshetra", "Ambu" and "Bija" in reference of Garbhotapatti and heredity. 10
2. Describe the component structures of the digestive system and write about small intestine in detail with figure. 10

OR

Describe the component structures of the male reproductive system and write about penis in detail with figure.

3. Write short note on any **Four** of the following : 20
 - A. Kidney with figure.
 - B. Heart with figure.
 - C. Chakshu Indriya.
 - D. Umbilical cord.
 - E. Classification of bones according to the Ayurveda and modern science.
4. Answer any **Five** of the following : 10
 - A. What is "Dohridini" ?
 - B. Write the divisions of the urethra.
 - C. Write the location of pulmonary veins.
 - D. Write the location and length of trachea.
 - E. Write the names of arteries and veins of the nasal septum.
 - F. Write the interrelationship of Mahabhuta and Gyanendriya.

SECTION-B

5. Explain – "Dosha, Dhatu, Malamulam hi Shariram". 10
6. What is respiration ? Explain O₂-CO₂ exchange in detail with diagrams. 10

OR

Nourishment of Shukra Dhatu with different Dhatu Poshana Nyaya.

7. Write short note on any **Four** of the following : 20
 - A. Write the Guna, Karma, Sthana and types of Pitta Dosha.
 - B. Explain the Sanchaya, Prakopa and Prashamana of Tridosha in reference to seasons.
 - C. Describe the functions of the heart and write about blood pressure.
 - D. Describe the Pachakagni(Jatharagni) in detail.
 - E. Write the functions of the liver.
8. Answer any **Five** of the following : 10
 - A. Enlist the hormones of the supra renal gland.
 - B. Write seats and functions of Apana Vayu.
 - C. Write seats and functions of Tarpaka Kapha.
 - D. Write Ashraya-Ashrayi Bhava of Dosha-Dhatu.
 - E. Write the types of Oja.
 - F. What is Nisthapaka ?

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JAMNAGAR

B. Pharm(Ayu.) First Year Examination May-2014 (NEW SYLLABUS)

Fundamentals of Ayurveda and Swasthavritta

Date: 27-05-2014
Tuesday

Time: 09:30 A.M. to 12:30 P.M.
Marks: 100

- Instructions : 1. Every question is compulsory.
2. Draw suitable diagrams wherever necessary.

SECTION-A

1. Explain importance and utility of Pramana in Chikitsa Shastra. 10
2. Describe Samanya – Vishesha Siddhanta. 10

OR

Describe utility and aim of Ayurvediya Padartha Vigyana.

3. Write short note on any **Four** of the following : 20
A. Classification of Guna.
B. Ashtanga Ayurveda.
C. Aptopadesha Pramana.
D. Concept of Kaala.
E. Types of Dravya.
4. Answer any **Five** of the following : 10
A. Definition of Dik Dravya.
B. Characteristics of Atma.
C. Enlist Paradi Guna.
D. Write the name of texts of Brihatrayi.
E. Define Padartha. Write the characteristics of Padartha.
F. Enlist Kaarana Dravyas.

SECTION-B

5. What is meant by "Dinacharya" & what is its relevance in pharmaceutical science ? 10
6. Describe industrial health hazards and their prevention. 10

OR

Describe occupational health hazards and their prevention.

7. Write short note on any **Four** of the following : 20
A. Sources and functions of carbohydrates.
B. Importance of Dharaniya Vega in maintenance of health.
C. Revised national TB control programme.
D. Varsha Ritucharya.
E. Concept of Swastha and Swasthya.
8. Answer any **Five** of the following : 10
A. Definition of Sadvritta.
B. Enlist Adharaniya Vega.
C. Enlist Vitamins.
D. Definition of Ahara.
E. Write names of two national health programmes.
F. Functions of fats.

GUJARAT AYURVED UNIVERSITY

JAMNAGAR

B. Pharm(Ayu.) First Year Examination May-2014 (NEW SYLLABUS)

Sanskrit

Date: 19-05-2014
Monday

Time: 09:30 A.M. to 11:30 A.M.
Marks: 50

Instructions: Every question is compulsory.

1. विभक्तियों की व्याख्या देकर नाम लिखें और सविस्तर समझाईए । 10
2. “माहेश्वरसूत्र” विषयक कथा लिखिए । तथा ‘अच्’ और ‘हल्’ प्रत्याहार को स्पष्ट 10
कीजिए ।

OR

2. ‘जरद्गवगीध कथा’ का बोध अपने शब्दों में लिखिए ।
3. Answer any **Four** of the following : 20
 - A. निम्नलिखित अव्यय का अर्थ बताते हुए वाक्य प्रयोग कीजिए (कोई चार) ।
१. तथा २. च ३. पुरतः ४. सह ५. न
 - B. संधि कीजिए ।
१. महा + इन्द्र २. अनु + अयः ३. भो + अति
४. आरम्भ + धम् ५. पुनर् + रमते
 - C. निम्नलिखित रूपों की पहचान दीजिए (कोई दो) ।
१. गजानाम २. देवयोः ३. अग्नौ ४. भानू
 - D. निम्नलिखित पद्य का भावार्थ स्पष्ट कीजिए ।
“तृणानि भूमिरुदकं वाक्चतुर्थी च सुनृता ।
एतान्यपि सतां गेहे नौच्छिद्यन्ते कदाचनः ॥”
 - E. आयुर्वेद एवं संस्कृत का समन्वय कीजिए ।

4. Answer any **Five** of the following : 10
 - A. माहेश्वरसूत्र कितने है ?
 - B. “वसुदैवकुटुम्बकम्” ये बात किस कथा में आती हैं ।
 - C. संख्या वाचक शब्द के प्रकार बताइए ।
 - D. हितोपदेश के रचयिता का नाम लिखें ।
 - E. व्यंजन कितने है ?
 - F. संधि को कितने प्रकारों में विभाजित किया गया है ?

GUJARAT AYURVED UNIVERSITY

JAMNAGAR

B. Pharm(Ayu.) First Year Examination May-2014 (NEW SYLLABUS)

English

Date: 20-05-2014
Tuesday

Time: 09:30 A.M. to 11:30 A.M.
Marks: 50

Instructions: 1. Every question is compulsory.

1. Write a paragraph in about 125 words on any one of the following : 10
- (i) India vision 2020.
 - (ii) T.V. – an idiot box.
 - (iii) Internet – blessing or curse.

2. Answer any **Two** of the following : 10
- (i) Why did Eleanor and Suzanne's friendship end ?
 - (ii) Why did Mona Marianna become unhappy ?
 - (iii) What was the effect of news on Rahim Khan about his wife's action ?

OR

2. Answer any **Two** of the following :
- (i) How did the boy spend his Saturday evening ?
 - (ii) What did the doctor say about different thermometers ?
 - (iii) Why was Rahim Khan unhappy ?
3. Answer any **Four** of the following : 20
- A. "You are not going to die with this fever".
 - B. "There goes the hard hearted devil".
 - C. "I am going to die".
 - D. "It is Satan's work".
 - E. "You have to take three different medications".

4. Fill in the blanks with proper word given in bracket (Answer any **Five**) : 10
- A. The Principal delivered impressive speech. (a, an, the)
 - B. did you shout ? (Why, Who, What)
 - C. The Sun rises the East and sets the West. (on, in, under)
 - D. The gardener the tree everyday. (waters, will water, water)
 - E. Is this the picture you were talking about ? (as, which, whom)
 - F. The passengers just got down off the train (has, have, am)

GUJARAT AYURVED UNIVERSITY

JAMNAGAR

B. Pharm(Ayu.) First Year Examination May-2014 (NEW SYLLABUS)

Pharmaceutical Chemistry (Inorganic)

Date: 22-05-2014
Thursday

Time: 09:30 A.M. to 12:30 P.M.
Marks: 100

- Instructions : 1. Every question is compulsory.
2. Draw suitable diagrams wherever necessary.

SECTION-A

1. What are the silent features of Mendeleeff's periodic law ? 10
2. What is the importance of IP85 method ? 10

OR

Define limit test. How it is done for Fe^{+2} ?

3. Write short note on any **Four** of the following : 20
A. Define : Volumetric analysis, indicator, normality, buffer solution and titrant.
B. Define and classify ligands.
C. Write a note on Mohar method.
D. What are the uses of buffer solution on pharmacy.
E. How will you 1liter of 0.1N NaOH solution ?
4. Answer any **Five** of the following : 10
A. Explain electronic configuration in C, N, O, and Ne.
B. Explain limit test for arsenic.
C. Define : metal indicators and iodimetry.
D. Explain the mechanism of buffer solution.
E. What are primary standards ? Name them.
F. Name any two indicators used in compexometric titration.

SECTION-B

5. What is the theory of gravimetric analysis ? Describe the washing of precipitate in gravimetry. 10
6. What are the antioxidants ? Explain preparation of Sodium thiosulphate. 10

OR

Explain the mechanism of action of antioxidants. Explain views of nitrogen as antioxidant.

7. Write short note on any **Four** of the following : 20
A. Explain occurrence and uses of calcium and potassium.
B. What are different reactions of lead and sodium ?
C. Explain preparation and uses of ammonium chloride.
D. How are precipitate dried in gravimetry ?
E. Mention properties of copper and mercury.
8. Answer any **Five** of the following : 10
A. What are the source of arsenic and sulphur ?
B. Explain uses of borax.
C. What are the criteria for a substance to act as an antioxidant ?
D. What kind of filter paper are used for filtration in gravimetry ?
E. How are Fe and Al precipitated as in gravimetry ?
F. Write structures of Sodium metabisulphite and hypophosphorous acid.

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B. Pharm(Ayu.) First Year Examination May-2014 (NEW SYLLABUS)

Pharmaceutical Chemistry (Organic)

Date: 23-05-2014
Friday

Time: 09:30 A.M. to 12:30 P.M.
Marks: 100

- Instructions : 1. Every question is compulsory.
2. Draw suitable diagrams wherever necessary.

SECTION-A

1. Define thiophene. Give preparation and uses of thiophene. 10
2. Give structure of the following (any five). 10
- | | | |
|-----------|------------------|-----------------|
| 1. TNT | 2. Phthalic acid | 3. Bromobenzene |
| 4. Phenol | 5. Cyclobutane | 6. Benzoic acid |

OR

Short note on dipole moment.

3. Write short note on any **Four** of the following : 20
- A. Explain Pauling Slater theory.
B. Explain configuration.
C. Note on geometric isomerism.
D. Note on specific reactions.
E. Write short note on V.B. theory.
4. Answer any **Five** of the following : 10
- A. Define acid & base according to Lewis theory.
B. Define R & S configuration.
C. Difference between n & σ bond.
D. Test for saturation & unsaturation.
E. Uses of ketone.
F. Uses of alcohol.

SECTION-B

5. Define SN_2 reaction. Write about SN_2 reaction along with energy profile diagram. 10
6. Define elimination reaction with example and narrate its application in pharmacy. 10

OR

What is substitution reaction ? Explain SN_1 reaction.

7. Write short note on any **Four** of the following : 20
- A. Explain carbonium Ion.
B. Explain carbanium Ion.
C. Define alkane. Give its method of preparation.
D. Define ketone. Give its method of preparation.
E. Explain Walden inversion.
8. Answer any **Five** of the following : 10
- A. Aromatization.
B. Define organic reaction mechanism.
C. Uses of aldehyde.
D. Define resonance energy.
E. Draw a structure of (i) Aniline (ii) Toluene
F. Friedal craft reaction.
