

(BPH30112)

B.Pharmacy DEGREE EXAMINATION,
FEBRUARY 2017.

(Regular/Supplementary)

Third Semester

Paper I — PHARMACEUTICAL CHEMISTRY — II
(ORGANIC — II)

(Regulation 2012-13)

Time : Three hours

Maximum : 70 marks

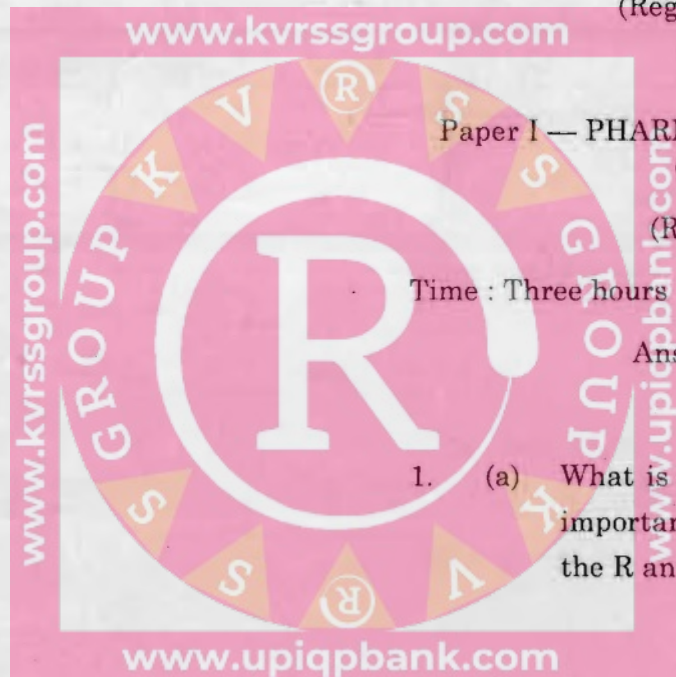
Answer ALL questions.

(5 × 14 = 70)

1. (a) What is R and S configuration? Explain the importance of sequence rules in establishing the R and S configuration. Give examples.

Or

- (b) What do you know of
- Optical isomerism
 - Geometric isomerism.



2. (a) What are amines? How are they prepared?
Discuss the basicity of amines.

Or

- (b) Write the mechanisms of

- (i) Friedel-Craft's alkylation and acylation
(ii) Kolbe reaction
(iii) Sandmeyer's reaction
(iv) Reimer-Tieman reaction.

3. (a) Discuss the method of preparation and reactions of isoquinoline.

Or

- (b) Give an account of the properties and reactions of furan and pyrrole.

4. (a) Discuss the important reactions of naphthalene.

Or

- (b) How is phenanthrene and anthracene prepared? Write the important reactions they undergo.

5. Write short notes on :

- (a) Oppenauer oxidation
(b) Mannich reaction.

Or

- (c) LiAlH_4
(d) Lead tetraacetate.

(BPH30312)

**B.Pharmacy DEGREE EXAMINATION,
FEBRUARY 2017.**

(Regular/Supplementary)

Third Semester

Paper II — PHARMACEUTICAL ENGINEERING — I

(Regulation 2012–2013)

Time : Three hours

Maximum : 70 marks

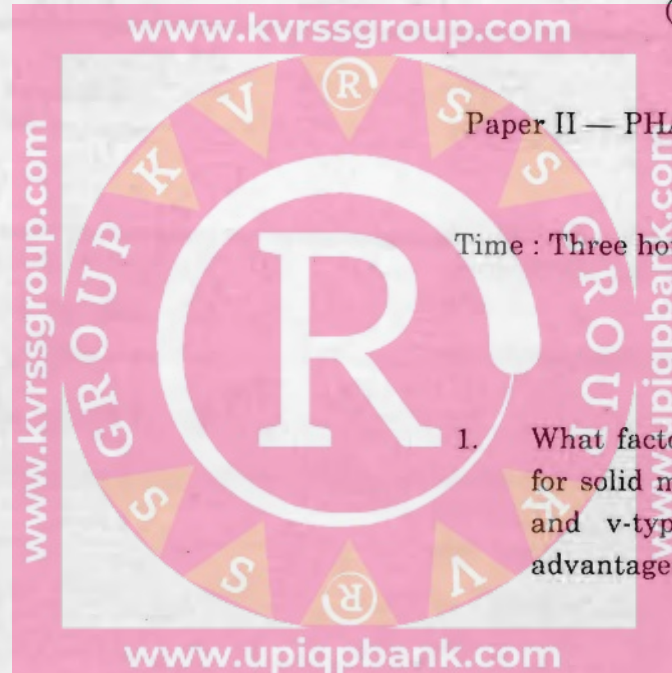
Answer ALL questions.

(5 × 14 = 70)

1. What factors will influence the selection of mixer for solid mixing? Explain the working of rototube and v-type mixers highlighting their relative advantages.

Or

2. (a) Differentiate between laboratory scale and pilot scale process. (4)
- (b) Give the classification of mixing equipment used for ointments and explain the working of triple roller mill. (10)



3. (a) What is Bernoulli's equation? How it is used to measure the horsepower of a pump lifting liquid to an overhead tank? (8)
(b) Explain the working of bucket elevator. (6)

Or

4. (a) Explain the working of globe valve and gate valve. (7)
(b) Explain the working of a self priming pump and mention its advantages. (7)
5. (a) What are the causes for chemical hazards in pharmaceutical industry? Write about their preventive measures. (8)
(b) Define corrosion and explain methods for its prevention. (6)

Or

6. (a) Enumerate the types of steels used in pharmaceutical industry. (8)
(b) Write about the use of non-metals in pharmaceutical industry. (6)
7. (a) Define humidity and humid heat. Write about humidity chart and its applications. (7)
(b) Explain the refrigeration cycle. (7)

Or

8. (a) Write about the factors influencing the wet bulb temperature. (6)
(b) Explain the working of industrial cooling towers. (8)

9. (a) Write about the factors influencing the size reduction. (6)

- (b) Explain the working of size reduction equipment for fibrous material justifying your answer. (8)

Or

10. Write short notes on the following :

- (a) Bag filter (4)
(b) Trommels (5)
(c) Cyclone separator. (5)

(BPH30412)

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Third Semester

Regular/Supplementary

Paper III — PHARMACEUTICAL MICROBIOLOGY

(Regulation 2012–13)

Time : Three hours

Maximum : 70 marks

Answer ALL questions.

1. (a) Write short notes on conjugation. (4)

(b) Classify bacteria with examples. (10)

Or

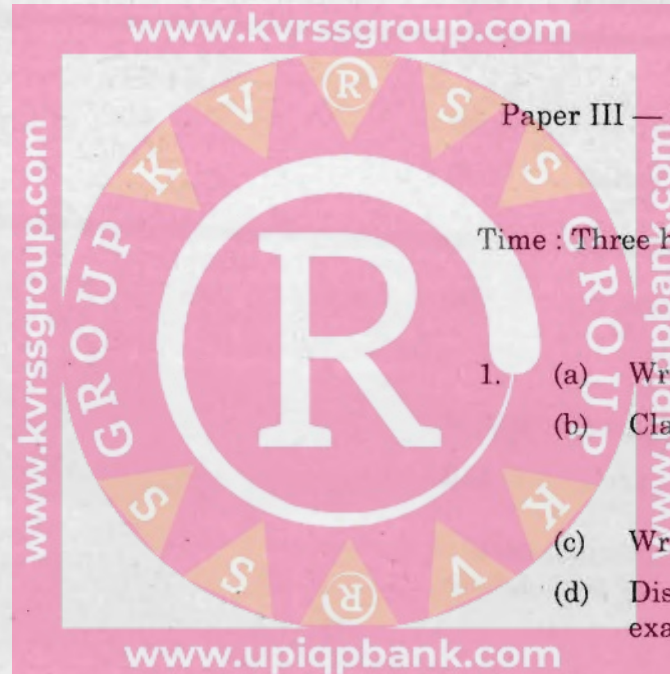
(c) Write short notes on Transduction. (4)

(d) Discuss about classification of Fungi with examples. (10)

2. (a) Write short notes on Gram staining. (4)

(b) Discuss about methods for isolation of microbial cultures. (10)

Or



- (c) Write briefly about microbiology of water. (4)
- (d) Discuss about the factors affecting bacterial growth. (10)
3. (a) Write short notes on disinfectants. (4)
- (b) Discuss about radiation sterilisation. (10)
- (b) Write about the etiology, symptoms, mode of transmission and prevention of the following.
- (i) Malaria
- (ii) Leprosy
- (iii) Amoebiasis.

Or

- (c) Write briefly bacterial filters. (4)
- (d) Discuss about dry heat sterilisation. (10)
4. (a) Write short notes on vaccines. (4)
- (b) Discuss about immune response. (10)

Or

- (c) Write briefly about monoclonal antibodies. (4)
- (d) Write about ELISA. (10)
5. (a) Write about the etiology, symptoms, mode of transmission and prevention of the following.
- (i) Syphilis
- (ii) Hepatitis
- (iii) Polio.

Or

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Paper IV — ANATOMY AND PHYSIOLOGY

(Regulation 2012-13)

Time : Three hours

Maximum : 70 marks

Answer ALL questions.

1. (a) Write about the types and functions of Joints. (4)
- (b) Discuss about the passive transport of materials across the cell membrane. (10)
- Or
- (c) Write short notes on Muscular tissue. (4)
- (d) Discuss about Membrane potential and Action potential. (10)
2. (a) Explain about the functions of Brainstem. (4)
- (b) Describe the structure and functions of Sympathetic nervous system. (10)
- Or
- (c) Write short notes on Synapse. (4)
- (d) Discuss about the Physiology of Vision. (10)

3. (a) Write about the Composition of Blood. (4)
- (b) Describe the structure and functions of Heart. (10)

Or

- (c) Write short notes on Arteries and Veins. (4)
- (d) Discuss about Nervous regulation of blood pressure. (10)

4. (a) Write about the Composition and functions of Bile. (4)
- (b) Discuss about the digestion of Proteins in GIT. (10)

Or

- (c) Write short notes on respiratory muscles. (4)
- (d) Write about the transport of Oxygen and Carbon dioxide. (10)

5. (a) Write short notes on Testes. (4)
- (b) Discuss about the structure and functions of Anterior Pituitary gland. (10)

Or

- (c) Draw a neat labeled diagram of Nephron. (4)
- (d) Discuss in detail about the functions of Kidneys. (10)