II Semester Examination – May 2017 BACHELOR of PHARMACY Human Anatomy and Physiology (BPH - 201)

Time: Three Hours

Maximum Marks: 80

(Write your Roll No. at the top immediately on receipt of this question paper.)

- No student is allowed to leave the Hall before Two hours.
- Answer any FIVE questions.
- All questions carry equal marks.
- Discuss the mechanism of blood coagulation. Write a note on blood grouping including Rh factor.
- 2. With the help of a well labelled diagram of human heart discuss cardiac cycle and cardiac output in detail.
- 3. Write notes on any two.
 - a) Lymph circulation
 - b) Regulation of blood pressure
 - Lung volumes and capactities.
- 4. What is the role of liver in the process of digestion? Explain the role of pepsin in protein digestion.

- Explain the physiology of urine formation and discuss the role of RAS in kidney.
- Discuss the mechanism and regulation of respiration.
 Briefly explain the transport of respiratory gases.
- 7. Write notes on any two.
 - a) Genetic pattern of inheritance
 - b) Physiology of Menstruation
 - Spermatogenesis.

II Semester Examination – May 2017 BACHELOR of PHARMACY Pharmaceutical Organic Chemistry (BPH - 202)

Time: Three Hours

Maximum Marks: 80

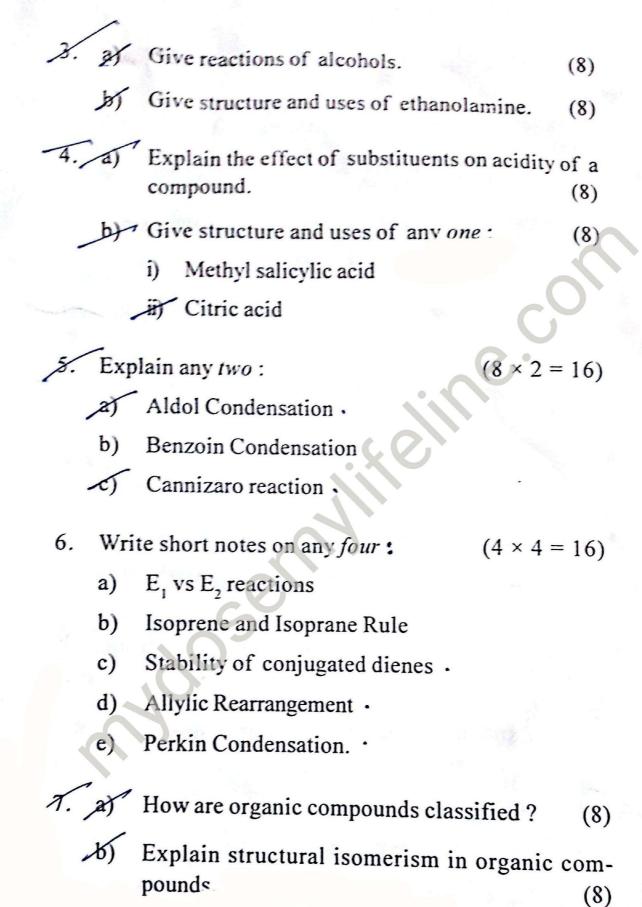
(Write your Roll No. at the top immediately on receipt of this question paper.)

- No student is allowed to leave the Hall before Two hours.
- Answer any FIVE questions.
- All questions carry equal marks.
- 1. a) Explain the type of hybridisation present in alkanes. (8)
 - b) Explain rearrangement of carbocations. (8)

2. Explain any two:

 $(8 \times 2 = 16)$

- a) Stayzeff's Orientation
 - b) Markonikoff's Orientation
- Diel-Alder Reaction
- d) Ozonolysis



BPH - 202

II Semester Examination, May 2017

BACHELOR of PHARMACY

Physical Pharmaceutics - I (BP - 203)

Time: Three Hours

Maximum Marks: 80

(Write your Roll No. at the top immediately on receipt of this question paper.)

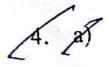
- No student is allowed to leave the Hall before Two hours.
- Answer any FIVE questions.
- All questions carry equal marks.
- 1. a) Write a note on mechanism of dissolution and drug release from a carrier to biological system.

 (8)
 - b) Discuss azeotropic mixtures and fractional distillation. (8)
- Discuss various physiochemical properties of drug molecule and state their role in designing of formulation. (10)
 - Define Polymorphism. Differentiate between crystalline and amorphous forms of solid state.

(6)

P.T.O.

2. Ja)	Give a detailed account on methods of deter	rmina-
	tion and application of particle size a	nd its
	distribution.	(10)
<u>b)</u>	Discuss protein binding and their methanalysis.	
	anarysis.	(6)
4. a)	Classify Complexes. Write a note on comp	nleva-
	tion and drug action.	(8)
b)	Discuss importance and applications of pa	rticle
	shape, surface, porosity and flow properties	
5. a)	Define Buffer capacity. Discuss applicati	on of
	buffers in pharmaceutical and biological sys	stem.
		(8)
<u>b)</u>	Discuss critical solution temperature an	d ite
	application.	(8)
<i>(</i>		(-)
Write	e notes on any two:	(16)
a)	Raoult's law	
一一	Derived properties	
(e)	Distribution law and application	
7. a) I	Define Permeability. What are the various men	thods
	of its determination? Discuss any one in de	etail.
		(8)
b) \	Write down the principle of Adsorption. Dis	Clice
а	any one method of its determination.	(8)
		, /



Differentiate between binary number system and the hexadecimal number system. (6)



What are the requirements for One's complement and Two's complement? (6)

5. Convert to Octal number system:

$$(3 \times 4 = 12)$$

(11111000111)₂

(1111000001)₂

6. Define:

$$(6 + 6 = 12)$$

- a My SQL
 - b) Ms Access
- 7. Why do we need computers in Pharmacy Space? Explain the usage of the computers in pharmaceutical industry. (12)

II Semester Examination, May 2017 BACHELOR of PHARMACY Computer Applications in Pharmacy (BP - 205)

Time: Three Hours

Maximum Marks: 60

(Write your Rol! No. at the top immediately on receipt of this question paper.)

- No student is allowed to leave the Hall before Two hours.
- Answer any FIVE questions.
- All questions carry equal marks.
- 1. Write notes on the following:

 $(3 \times 4 = 12)$

- a) Patient Monitoring System
- b) Pharma Information System
- c) Bioinformatics Databases
- 2. a) Differentiate between HTML, XML and CSS.

Explain in detail Text Information Management System and Laboratory Information Management System. (6)

- 3. a) Define Bioinformatics with its objective. (6)
 - b) Explain Information gathering, requirement and feasibility analysis. (6)

P.T.O

(6)

II Semester Examination, May 2017 BACHELOR of PHARMACY

Environmental Sciences (BP - 206)

Time: Three Hours

Maximum Marks: 60

(Write your Roll No. at the top immediately on receipt of this question paper.)

- No student is allowed to leave the Hall before Two hours.
- Answer any THREE questions
- All questions carry equal marks.
- 1. Describe the following:

 $(4 \times 5 = 20)$

- a) Water resources and problems associated with them
- Food resources and problems associated with them
- Renewable and non-renewable resources
- d) Explain the role of an individual in conservation of natural resources
- a) Describe the characteristic features, structure and functions of aquatic ecosystems. (8)

P.T.O.

- b) Write a detailed account on Grassland ecosystems. (8)
- c) Write a short note on forest ecosystem. (4)
- 3. a) Describe the causes of water pollution and how to prevent water pollution. (8)
 - Describe the major types of air pollution according to EPA. (8)
 - What are the causes of soil pollution. (4)
- 4. a) What is mineral resources, types of minerals and their uses.
 - Describe the structure and function of the desert ecosystem.
 - Management of energy resources.
 - Write a short note on greenhouse effects and global warming.

 $(4 \times 5 = 20)$

II Semester Examination, May 2017

BACHELOR of PHARMACY Pathophysiology (BPH - 204)

Time: Three Hours

Maximum Marks: 80

(Write your Roll No. at the top immediately on receipt of this question paper.)

- No student is allowed to leave the Hall before Two hours.
- Answer any FIVE questions.
- Classify Hypertension and discuss in brief the causes of Hypertension. (16)
- Define Cell injury. What are the various causes of cell injury? How does ceil adapt to control cell injury?
 (16)
- 3. Classify and explain different types of Anemia. (16)
 - Write about the causative organisms, pathophysiology and symptoms of any two of the following is actious diseases:

 (16)
 - a) Meningitis
 - b) Typhoid
 - c' Tuberculosis

- 5. Write short notes on pathogenesis any two of the following: (16)
 - a) Parkinson's disease
 - b) Rheumatoid Arthritis
 - c) Inflammatory bowel disease
- Explain etiology, pathogenesis and symptoms of Diabetes Mellitus. (16)
- 7. Give the signs and symptoms of any two of the following diseases:
 - a) Chronic Obstructive Airway Diseases
 - b) Peptic Ulcer
 - c) Jaundice