

DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE**Regular/Supplementary Summer Examination – 2024****Course: B. Pharmacy****Semester: II****Subject Name: Human Anatomy & Physiology II****Subject Code: BP201T****Max Marks: 75****Date: 12-06-2024****Duration: 3 Hr.****Instructions to the Students:**

1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q.1.	Objective Type Questions (Answer All the Questions)	(10X2) =20
i)	Give functions of Hypothalamus	
ii)	Define Tidal volume & BMR	
iii)	Draw a neat labeled diagram of urinary system	
iv)	Enlist different functions of respiratory system	
v)	What do you mean by Pheochromocytoma and diabetes insipidus	
vi)	What are chromosomes	
vii)	Give composition & functions of bile juice	
viii)	What do you mean by neuropgia & action potential	
ix)	Name hormones secreted by pancreas and give its functions	
x)	What are afferent and efferent nerve tract	
Q.2.	Long Answers (Answer 2 out of 3)	(10X2) =20
i)	Explain Oogenesis and Spermatogenesis	
ii)	Explain meaning of External, Internal respiration Give in detail physiology of respiration	
iii)	Explain in detail Physiology of Digestion of Fats, protein, Carbohydrates	
Q.3.	Short Answers (Answer 7 out of 9)	(5 X 7) = 35
i)	Write the functions CSF & show circulation of cerebrospinal fluid with help of diagram	
ii)	Explain different phases of menstrual cycle with neat labelled diagram	
iii)	Explain structure of Nephron with help of diagram	
iv)	Give functions of gastric juice & regulation of acid production in stomach	
v)	Write a short note on Cardiopulmonary resuscitation & Acute renal failure	
vi)	Enlist two functions of kidney & explain role of RAS Kidney	
vii)	Define Hormone and give its classification	
viii)	Write a note on structure and functions of spinal cord	
ix)	Name different hormone secreted by Pituitary gland & give its functions	
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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular/Supplementary Summer Examination – 2024

Course: B. Pharmacy

Subject Name: Pharmaceutical Organic Chemistry-I

Max Marks: 75

Date: 14-06-2024

Semester: II

Subject Code: BP202T

Duration: 3 Hr.

Instructions to the Students:

1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q.1.	Objective Type Questions (Answer all the questions)	(10 X 2) = 20
i)	Describe any two qualitative tests for carboxylic acid.	
ii)	Define functional isomerism with example.	
iii)	Explain Inductive effect.	
iv)	Write a note on ozonolysis reaction.	
v)	Write a difference between E ₁ and E ₂ reaction.	
vi)	What is meant by Electromeric effect?	
vii)	Draw the structure and uses of Ethyl alcohol.	
viii)	Write the IUPAC names of the following compounds.	
	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> $\begin{array}{ccccccc} & & & \text{CH}_3 & & & \\ & & & & & & \\ \text{H}_2\text{C} & - & \text{CH} & - & \text{CH}_2 & - & \text{CH} & - & \text{CH}_3 \\ & & & & & & & & \\ & & \text{CH}_3 & & & & & & \end{array}$ <p>a)</p> </div> <div style="text-align: center;"> $\begin{array}{ccccccc} & & & & & \text{O} & \\ & & & & & & \\ \text{CH}_3 & - & \text{C} & = & \text{CH} & - & \text{C} & - & \text{H} \\ & & & & & & & & \\ & & \text{H} & & & & & & \end{array}$ <p>b)</p> </div> </div>	
ix)	Draw the structure of the following compounds. a) 2-buten-1-ol b) 4-hydroxy pentanoic acid	
x)	White is saytzeff's rule? Give its reaction.	
Q.2.	Long Answers (Answer 2 out of 3)	(10 X 2) = 20
i)	What is elimination reaction? Explain reaction, mechanism, kinetics and order of reactivity of E ₁ and E ₂ reaction?	
ii)	Illustrate the reaction and mechanism of Markownikoff's and anti-Markownikoff's orientation of alkene with suitable example.	
iii)	Explain the reaction, mechanism and stereochemistry of SN ₂ reaction.	
Q.3.	Short Answers (Answer 7 out of 9)	(5 X 7) = 35
i)	Explain the sp ³ hybridization in alkanes with suitable example.	
ii)	Discuss the free radical addition reactions of conjugated dienes.	
iii)	Write a short note on Cannizzaro's reaction.	
iv)	What are carboxylic acids? Explain the effect of the substituents on acidity of carboxylic acid?	

v)	Draw the structure and mention the uses of following compounds, a) Benzoic acid b) Ethanolamine c) Ethylenediamine d) Dichloromethane e) Benzaldehyde
vi)	Write chemical reactions of alkyl halide.
vii)	Discuss on Benzoin condensation reaction.
viii)	Write reactions of carbonyl compounds.
ix)	Arrange the following compounds in order of increasing acidity. Justify your answer. Chloroacetic acid, formic acid, acetic acid, dichloroacetic acid.
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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE**Regular/Supplementary Summer Examination – 2024****Course: B. Pharmacy****Subject Name: Biochemistry****Max Marks: 75****Date: 18/06/2024****Semester: II****Subject Code: BP203T****Duration: 3 Hr.****Instructions to the Students:**

1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q.1. Objective Type Questions (Answer All the Questions) (10 X 2) = 20

- i) Give a classification of carbohydrates with a suitable example.
- ii) Draw the structure of α D Glucose.
- iii) Which enzyme is involved in the conversion of Glucose -6-phosphate to fructose- 6-phosphate and Glucose -6-phosphate to glucose .
- iv) How is glycolysis regulated?
- v) What are different methods of catabolism of purine nucleotides ?
- vi) Define amino acids. Classify them with examples.
- vii) Enlist steps involved in DNA replication by semi-conservative model.
- viii) Explain the hydrolytic deamination.
- ix) What are holoenzymes and prosthetic groups?
- x) Give classification of Enzymes with an example of each.

Q.2. Long Answers (Answer 2 out of 3) (10 X 2) = 20

- i) Give brief account of TCA cycle with its significance and energetics
- ii) Explain the biosynthesis of 5-HT and melatonin.
- iii) Discuss β -oxidation of saturated fatty acids with energetics.

Q.3. Short Answers (Answer 7 out of 9) (5 X 7) = 35

- i) Give details of bioenergetics of glycolysis.
- ii) Explain in detail bile acid synthesis.
- iii) Write a short note on urea cycle.
- iv) Define polysaccharides and describe the structure of any one polysaccharide.
- v) Explain the different methods of catabolism of amino acids.
- vi) Describe HMP shunt pathway and give its regulation with significance.
- vii) Write a short note on Formation of Melanin.
- viii) Write a short note on ketone bodies.
- ix) Explain the different types of Enzyme inhibitors with suitable examples.

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DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE**Regular/Supplementary Summer Examination – 2024****Course: B. Pharmacy****Semester: II****Subject Name: Pathophysiology****Subject Code: BP204T****Max Marks: 75****Date: 20-06-2024****Duration: 3 Hr.****Instructions to the Students:**

1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

Q.1. Objective Type Questions (Answer All the Questions) (10 X 2) = 20

- i) Enlist the component and types of feedback system.
- ii) Define hypertrophy and hyperplasia.
- iii) Define Angina pectoris, Congestive Cardiac Failure.
- iv) Give the classification of Hepatitis.
- v) Give the signs and symptoms of Jaundice.
- vi) What is the clinical manifestation of Parkinson's disease.
- vii) Write a note on urinary tract infection
- viii) Enlist causative organism of Typhoid and Leprosy
- ix) Define AIDs. Give its mode of transmission and prevention.
- x) What is Gout

Q.2. Long Answers (Answer 2 out of 3) (10 X 2) = 20

- i) Define cell injury. Explain the mechanism of Cell Injury.
- ii) Define and classify Ulcer. Explain in detail signs symptoms and etiology.
- iii) Define and classify Diabetes Mellitus. Discuss in detail pathophysiology of Diabetes Mellitus.

Q.3. Short Answers (Answer 7 out of 9) (5 X 7) = 35

- i) Define Hypertension. Explain the pathophysiology of Hypertension.
- ii) Explain the positive and negative feedback mechanism with examples.
- iii) Explain etiology, signs symptoms and pathophysiology of Angina Pectoris
- iv) Define Anemia. Give the classification with examples. Explain Megaloblastic Anemia.
- v) Explain the pathophysiology of Depression
- vi) Discuss the pathogenesis and clinical manifestation of Rheumatoid arthritis.
- vii) What is Cancer. Give its classification, etiology and clinical manifestation.
- viii) Define Inflammation. Explain the mechanism of Inflammation.
- ix) Discuss the pathophysiology of Tuberculosis.

***** END OF THE PAPER *****

DR.BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE

Regular & Supplementary Summer Examination - 2024

Course : B.Pharmacy

Sem : II

Subject Name: Computer Applications in Pharmacy

Subject Code : BP205T

Max. Marks : 50

Date: 24/06/2024

Duration : 02Hr.

Instructions:

- 1. All questions are Compulsory**
- 2. Draw diagrams/figures wherever necessary**
- 3. Figures to right indicates full marks**

Q.1. Long Answers (Answer 2 out of 3)

(2x10) = 20

- i) How a Pharmacy drug database can be designed?**
- ii) Define the number system and explain its types with examples.**
- iii) what is project planning ?What are the steps of development process?**

Q.2. Shorts Answers(Answer 6 out of 8)

(6x5) = 30

- i) What is binary number system?**
- ii) What are the various phases of the process life-cycle?**
- iii) What are the features of programming languages?**
- iv) What are the characteristics of database?**
- v) How computers are used in hospital and clinical pharmacy?**
- vi) Write a note on applications of CAD.**
- vii) Discuss the objectives of bioinformatics.**
- viii) List the different types of LIMS.**

*****END OF THE PAPER*****

DR.BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,LONERE

End Semester Examination-Summer 2024

Date: 26/06/2024

Course : B.Pharmacy

Sem : II

Subject Name : Environmental Sciences

Subject Code : BP206T

Max.Marks : 50

Duration : 02Hr.

Instructions:

1. All questions are Compulsory
 2. Draw diagrams/figures wherever necessary
 3. Figures to right indicates full marks
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Q.1. Long Answers (Answer 2 out of 3)

(2x10) = 20

- i) Explain the environmental studies challenges?
- ii) Write a brief note on energy flow in the eco system.
- iii) Explain in details the control measures for nuclear pollution?

Q.2. Shorts Answers (Answer 6 out of 8)

(6x5) = 30

- i) Discuss the effects of mining on water?
- ii) Write a note on water crisis?
- iii) State any two causes & effects of deforestation?
- iv) Discuss the type of ecological succession?
- v) What is food chain? State its importance.
- vi) Enumerate the different types of grass land ecosystem.
- vii) What are the measure causes of environmental pollution.
- viii) Illustrate the different types of air pollutant.

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