

Roll No. _____

End Semester Theory Examination (June-July 2024)
B. Pharm 2nd Semester

Subject Code: BP206T

Subject Name: Environmental Sciences

Time: 3.00 Hour

Total Marks: 50

		Marks	CO	PO
Q.1	Attempt any Two Questions:	20(2*10)		
a.	Describe the multidisciplinary nature of environmental studies.		CO1	PO-2
b.	Explain the concept of ecosystem and its structure.		CO3	PO-2
c.	Explain how pollution can be controlled at different levels.		CO1	PO-2
Q.2	Attempt any Six Questions:	30(6*5)		
a.	Brief the indirect functions of forest.		CO1	PO-2
b.	Explain the consequences of deforestation.		CO1	PO-6
c.	Brief the role of an individual in the conservation of energy resources.		CO2	PO-6
d.	Describe the process of ecological succession.		CO3	PO-2
e.	Write any five characteristics of grassland ecosystem.		CO3	PO-2
f.	Discuss the significance of 3R's in solid waste management.		CO1	PO-2
g.	Brief the effects of water pollution.		CO4	PO-2
h.	Discuss your contribution in society for environmental awareness.		CO4	PO-11

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End Semester Theory Examination (June-July 2024)
B. Pharm 2nd Semester

Subject Code: BP205T

Subject Name: computer application in pharmacy

Time: 3.00 Hour

Total Marks: 50

Q.No		Marks	CO	PO
Q.1	Attempt any Two Question	20(2*10)		
a.	I. Write the range of Binary, Octal, decimal and hexadecimal. II. Convert binary number into hexadecimal- (101100110101) ₂ → (?) ₁₆ III. Convert (9AF) ₁₆ → (?) ₂ IV. Write full form of HTML, www and XML. V. Solve the Binary subtraction-(111001) ₂ -(110) ₂ .		CO-1,2	PO-8
b.	I. Describe Data Flow Diagram in your own words II. What is Planning and managing the project with a suitable figure?		CO-2	PO-10
c.	I. What is the impact of bioinformatics in vaccine discovery? II. What is electronic prescribing system? Explain the advantages of it.		CO-5	PO-6
Q.2	Attempt any Six Questions	30(6*5)		
a.	Differentiate between computer hardware and computer software.		CO-1	PO-3
b.	Create a HTML webpage to show personal information.		CO-2	PO-9
c.	Define table? Write down the steps to create a database in MS Access.		CO-3	PO-2
d.	What is the impact of bioinformatics in vaccine discovery?		CO-4	PO-1
e.	What is Text Information Management System? Explain the use of it in pharmacy.		CO-4	PO-7
f.	Explain application of computers in drug development.		CO-3	PO-5
g.	Discuss the meaning of automated dispensing of drugs?		CO-5	PO-2
h.	Explain the use of barcode in medicine identification.		CO-3	PO-8

ROLL NO. _____

END SEMESTER THEORY EXAMINATION (JUNE-2024)
B. PHARM (2ND SEMESTER)

Subject Code: BP204T

Subject Name: PATHOPHYSIOLOGY (THEORY)

Time: 3.00 Hour

Total Marks: 75

Q.No		Marks	CO	PO
Q.1	Attempt all Questions	20(10*2)		
a.	Which serological test can be used for diagnosis of typhoid fever? 1. Widal test 2. PCR 3. ELISA 4. None of the above		4	2
b.	Parkinson disease is marked by a lack of which chemical in the brain? 1. Serotonin 2. GABA 3. Dopamine 4. Norepinephrine		4	2
c.	Increase dopaminergic transmission into mesolimbic system shows positive system in..... 1. Depression 2. Alzheimer 3. Parkinson's 4. Schizophrenia.		4	2
d.	Hallucinations means..... 1. Hearing or seeing things that don't exist. 2. These are false beliefs that are not based in reality. 3. The person may jump from one subject to another for no logical reason. 4. Disorganized thinking is inferred from disorganized speech.		1	3
e.	In which type of diabetes do people often produce insulin but the cells of the body fail to adequately respond to insulin? 1. type 1 diabetes 2. type 2 diabetes 3. diabetes insipidus 4. gestational diabetes		4	3
f.	The normal BP is _____ systolic & _____ diastolic. 1. 120 mmHg, 80 mmHg 2. 140 mmHg, 100 mmHg 3. 100 mmHg, 80 mmHg 4. 100 mmHg, 60 mmHg		3	2
g.	Which of the following is physical agent of cell injury? 1. Hot Surface 2. Dil. HCl 3. Viruses 4. Hypoxia		2	3

h.	Adaptation means reversible change in ____. 1. Size of cell 2. Functions of cell 3. Phenotype of cell 4. All of the above		2	2
i.	Atherosclerotic narrowing of _____ leads angina. 1. Coronary Artery 2. Coronary Vein 3. Aorta 4. All of Above		3	2
j.	Cell swelling is a result of 1. Decreased activity of sodium pump 2. Increased glycogen production 3. Decreased protein synthesis 4. Decreased lactic acid secretion		2	3
Q.2	Attempt any Two Questions	20(2*10)		
a.	Write in detail about psychiatric disorders.		4	3
b.	Discuss in detail about disorders of sex hormones		5	3
c.	Write in detail on Clinical signs of inflammation, Different types of Inflammation, Mechanism of Inflammation		2	2
Q.3	Attempt any Seven Questions	35(7*5)		
a.	Discuss pathophysiology of megaloblastic anemia		4	3
b.	Give in brief about Causes of cellular injury.		2	2
c.	Give pathogenesis, cause and symptoms of schizophrenia		4	2
d.	What is metaplasia? Give example.		2	2
e.	Write note on Calcification		2	3
f.	Give etiology, symptoms, and treatment of Osteoporosis		4	2
g.	What is Cell Injury? Discuss the various factors influencing Cell Injury?		2	2
h.	Define atrophy with example?		2	2
i.	Discuss symptoms and management of myocardial infarction.		3	3

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End Semester Examination (June-2024)

B. Pharm. – 2nd Semester

Subject Code: BP203T

Subject Name: Biochemistry

Time: 3.00 Hour

Total Marks: 75

Q. No		Marks	CO	PO
Q.1	Attempt all Questions	20(10*2)		
a.	A nucleoside consists of 1. Nitrogenous base 2. Purine or pyrimidine base + sugar 3. Purine or pyrimidine base + phosphorous 4. Purine + pyrimidine base + sugar + phosphorous		2	2
b.	The nitrogenous base present in the RNA molecule is 1. Thymine 2. Uracil 3. Xanthine 4. Hypoxanthine		1	2
c.	When ATP forms AMP 1. Inorganic pyrophosphate is produced 2. Inorganic phosphorous is produced 3. Phosphagen is produced 4. No energy is produced		5	2
d.	An example of ligases is 1. Succinate thiokinase 2. Alanine racemase 3. Fumarase 4. Aldolase		3	2
e.	The kinetic effect of purely competitive inhibitor of an enzyme 1. Increases K_m without affecting V_{max} 2. Decreases K_m without affecting V_{max} 3. Increases V_{max} without affecting K_m 4. Decreases V_{max} without affecting K_m		2	2
f.	In reversible non-competitive enzyme activity inhibition 1. V_{max} is increased 2. K_m is increased 3. K_m is decreased 4. Concentration of active enzyme is reduced		4	2
g.	Isoenzymes are 1. Chemically, immunologically and electrophoretically different forms of an enzyme 2. Different forms of an enzyme similar in all properties 3. Catalysing different reactions 4. Having the same quaternary structures like the enzymes		4	2
h.	Define Isoenzymes.		4	2
i.	Define Allosteric Enzymes.		5	2
j.	Define Central dogma.		5	2

Q.2	Attempt any Two Questions	20(2*10)		
a.	Write a note on EMP pathway.		2	2
b.	Explain the Citric acid pathway along with its significance and energetics.		2	2
c.	Explain Protein synthesis		4	2
Q.3	Attempt any Seven Questions	35(7*5)		
a.	Explain Albinism and Alkaptonuria.		5	2
b.	Write a short note on Hyperbilirubinemia.		1	2
c.	Explain the allosteric enzymes regulation		4	3
d.	Write a short note on synthesis and significance of dopamine, noradrenaline, adrenaline		1	2
e.	Explain about the Hyperuricemia.		2	2
f.	Explain diagnostic applications of enzymes and isoenzymes.		3	3
g.	Explain Genetic code.		4	3
h.	Explain RNA along with its classification.		3	2
i.	Give the classification of enzymes according to IUB.		5	3

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End Semester Examination (June 2024)
B. Pharm. – 2nd Semester

Subject Code: BP202T

Subject Name: Pharmaceutical Organic Chemistry-I

Time: 3.00 Hour

Total Marks: 75

Q.No		Marks	CO	PO
Q.1	Attempt all Questions	20(10x2)		
a.	Which of the following example contains ester functional group? 1. CH_3COOH 2. CH_3CHO 3. $\text{CH}_3\text{-NH}_2$ 4. $\text{CH}_3\text{COOCH}_3$		1	2
b.	Cyclic compounds which consist of only carbon atoms are called ---- compounds. 1. aliphatic 2. aromatic 3. heterocyclic 4. alicyclic		1	2
c.	IUPAC name of $(\text{CH}_3)_3\text{C-OH}$ is ---- 1. t-butyl alcohol 2. 3-propanol 3. 2-methyl 2-propanol 4. None of these		2	2
d.	IUPAC name of $\text{CH}_3\text{CH}(\text{NH}_2)\text{CH}_3$ --- 1. 1-propanamine 2. 2-propanamine 3. iso-propyl amine 4. None of these		2	2
e.	The order of stability of carbanion is : 1. Secondary > tertiary > primary 2. Tertiary > primary > secondary 3. Tertiary > secondary > primary 4. Primary > secondary > tertiary		3	2
f.	Which of the following is not a Nucleophile? 1. NH_3 2. HSO_4^- 3. AlCl_3 4. OH^-		3	2
g.	1, 3-Butadiene react with HBr to at low temp. gives --- 1. 3-bromo 1-butene 2. 4-bromo 1-butene 3. 1-bromo 2-butene 4. None of these		4	2
h.	In Clemmensen Reduction carbonyl compound is treated with _____. 1. Zinc amalgam + HCl 2. Sodium amalgam + HCl 3. Zinc amalgam + nitric acid 4. Sodium amalgam + HNO_3		4	2

i.	Write the chemical structure & uses of succinic and oxalic acid.		5	2
j.	Define Diels Alder reaction.		5	6
Q.2	Attempt any Two Questions.	20(2x10)		
a.	Explain the mechanism of Benzoin and Cannizaro reaction.		1	2
b.	Write a note on Structural Isomerism in organic with suitable example. Discuss the common IUPAC system of nomenclature of Alcohol & Carboxylic Acid.		2	2
c.	Write in detail about method of preparation and chemical properties of Diazonium salts.		3	2
Q.3	Attempt any Seven Questions.	35(7x5)		
a.	Give the structure and uses of acetic acid, lactic acid, formaldehyde, glycerol, ethyl alcohol and dichloromethane		2	2
b.	Give the IUPAC names $1. \quad \begin{array}{c} \text{O} \\ \\ \text{CH}_3 - \text{C} - \text{CH}_2 - \text{COOH} \end{array}$ $2. \quad \begin{array}{c} \text{Cl} \quad \text{OCH}_3 \\ \quad \\ \text{CH}_2 - \text{CH} - \text{CH}_2 - \text{CHO} \end{array}$ $3. \quad \begin{array}{c} \text{NH}_2 \quad \text{OH} \\ \quad \\ \text{CH}_3 - \text{CH} - \text{CH}_2 - \text{CH} - \text{CH}_3 \end{array}$ $4. \quad \begin{array}{c} \text{O} \\ \\ \text{H}_3\text{C} - \text{C} - \text{O} - \text{CH}_3 \end{array}$ $5. \quad \text{CH}_2 = \text{CH} - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{OH}$		3	6
c.	Explain why aliphatic amines are more basic than ammonia?		1	2
d.	Arrange the following compounds in order of increasing acidity and justify your answer. Chloroacetic acid, formic acid, acetic acid, dichloroacetic acid.		1	2
e.	Enlist different types of dienes with examples.		5	6
f.	Explain, why Aldehydes and ketones are susceptible for nucleophilic addition reactions?		1	2
g.	Draw the structure of the following compounds: a) 2-Bromo-2-chloro-1,1,1-trifluoro ethane. b) Beta hydroxy butyric acid.		1	6
h.	Discuss kinetic and thermodynamic control in addition reaction of conjugated dienes.		3	2
i.	Write the classification of organic compounds.		3	2

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End Semester Examination (June-July 2024)
B. Pharm. – 2nd Semester

Subject Code: BP201T

Subject Name: Human Anatomy and Physiology II

Time: 3.00 Hour

Total Marks: 75

Q.No		Marks	CO	PO
Q.1	Attempt all Questions.	20(10*2)		
a.	Define the term Tidal Volume.		1	2
b.	Enlist the endocrine gland present in the human body.		1	2
c.	What is an Action Potential?		1	2
d.	What is semen?		1	2
e.	Enlist step involved in urine formation.		1	2
f.	Enlist the hormones of adrenal gland.		1	2
g.	What is the function of uterus?		2	1
h.	What is the meaning of artificial respiration?		1	2
i.	Define BBB and its location.		1	2
j.	Give definition of BMR.		2	2
Q.2	Attempt any Two Questions.	20(2*10)		
a.	Discuss anatomy and physiology of female reproductive system.		1	2
b.	Give anatomy and physiology of pituitary gland.		1	1
c.	Write a detail note on anatomy and physiology of Respiration system.		1	2
Q.3	Attempt any Seven Questions.	35(7*5)		
a.	Write a note on hypothalamus.		1	1
b.	Explain structure and function Sperm.		1	2
c.	Write a short note on BMR.		2	1
d.	Write a short note on digestion of carbohydrates.		2	1
e.	Write a note on external and internal respiration.		1	1
f.	Explain the synthesis storage and release of thyroid hormones.		2	1
g.	Write a note on disorder of endocrine gland .		2	1
h.	Write a note on menstrual cycle.		1	2
i.	Write a note on urinary system.		1	1
