M.Sc.-II (Chemistry) (CBCS Pattern) Semester - IV PSCHT15.2 - Organic Chemistry Special-II

P. F Tin	Pages : ne : Thi	2 ree H	ours * 1 6 0 0 *	GUG/S/23/11456 Max. Marks : 80
	Note	s :	1. All questions are compulsory and carry equal marks.	
1.	a)	Wh	at do you mean by enzyme? Give the properties and applications of enzyme	mes. 8
	b)	Exp	plain the following terms.	8
		i)	Apoenzyme	
		ii)	Prosthetic group	
		iii)	Orientation	
		iv)	Steric effect.	
			OR	
	c)	Giv	e the mechanism of Koshland's induced fit hypothesis.	4
	d)	Exp	lain the mechanism of carboxypeptidase A.	4
	e)	Dis	cuss the biological functions of following.	4
		i)	Thiamine pyrophosphate	
		ii)	Pyridoxal Phosphate.	
	f)	Wri	te the application of enzymes in food and drug chemistry.	4
2.	a)	i)	Discuss nucleophilic substitution in quinoline and iso-quinoline.	8
		ii)	Give any two methods for the synthesis of thiazole.	8
	b)	Discuss the structural properties and synthesis of pyridazines.		
			OR	
	c)	Wri	te down the synthesis of indole.	4
	d)	Dis	cuss the chemical applications of pyrazine.	4
	e)	Wh Imi	at do you mean by Azoles. Discuss electrophilic and nucleophilic substitudazole.	ation of 4
	f)	Dis	cuss the synthesis of Isoxazole.	4

b) c)	Whai)	at do you mean by Lipids? Explain t Triglycerols Sphingolipids	he foll ii)	lowing terms. Glycerophospholipids	8				
c)	i) iii)	Triglycerols Sphingolipids	ii)	Glycerophospholipids					
c)	iii)	Sphingolipids							
c)			iv)	Lipoprotein					
c)			O	R					
	Discuss replication and heredity of DNA.								
d)	Explain in synthesis of vitamin E.								
e)	Write a short note on Lipids metabolism.								
f)	Discuss the biosynthesis of vitamin H.								
a)	What do you mean by stereoregular polymers? Discus atactic, isotactic and syndiotactic polymers with suitable examples.								
b)	i) Give any two syntheses of quinoline yellow.								
	ii)	ii) Give the synthesis and applications of benzocaine.			8				
	OR								
c)	Discuss Ziegler – Natta polymerization with mechanism.								
d)	What is the method and mechanism of dyeing?								
e)	Give the classification of drugs.								
f)	Write a note on								
	i)	Ethylred	ii)	Coordination polymerization.					
	 a) b) c) d) e) f) g) h) 	Explain the term co-enzyme. What is baker's yeast? Discuss the ring cleavage with suit Draw two isomeric structures of be Write a note on beta-oxidation of f Write the structure of cyanine gree Write the applications of methyl de Give difference between Purines at	able e enzoth atty ac n and opa. nd Pyr	xample. iophene and write their names. vids. alizarine. imidine bases.	2 2 2 2 2 2 2 2 2 2 2 2				
	 d) e) f) a) b) c) d) e) f) f) 	 d) Exp e) Writh f) Disconsistent a) Wh poly b) i) ii) c) Disconsistent d) White c) Disconsistent d) White e) Give f) Writh i) a) b) c) d) e) f) g) h) 	 d) Explain in synthesis of vitamin E. e) Write a short note on Lipids metabolism f) Discuss the biosynthesis of vitamin H. a) What do you mean by stereoregular polypolymers with suitable examples. b) i) Give any two syntheses of quinolinii) Give the synthesis and applications c) Discuss Ziegler – Natta polymerization d) What is the method and mechanism of control of the classification of drugs. f) Write a note on i) Ethylred a) Explain the term co-enzyme. b) What is baker's yeast? c) Discuss the ring cleavage with suit d) Draw two isomeric structures of be end with the structure of cyanine gree g) Write the applications of methyl do h) Give difference between Purines and the structure of cyanine gree by the structure of cyanine gree and the structure of t	 d) Explain in synthesis of vitamin E. e) Write a short note on Lipids metabolism. f) Discuss the biosynthesis of vitamin H. a) What do you mean by stereoregular polymers' polymers with suitable examples. b) i) Give any two syntheses of quinoline yell ii) Give the synthesis and applications of be c) Discuss Ziegler – Natta polymerization with metabolism. d) What is the method and mechanism of dyeing e) Give the classification of drugs. f) Write a note on i) Ethylred ii) a) Explain the term co-enzyme. b) What is baker's yeast? c) Discuss the ring cleavage with suitable endot Draw two isomeric structures of benzoth e) Write the applications of methyl dopa. h) Give difference between Purines and Pyr 	 d) Explain in synthesis of vitamin E. e) Write a short note on Lipids metabolism. f) Discuss the biosynthesis of vitamin H. a) What do you mean by stereoregular polymers? Discus atactic, isotactic and syndiotactic polymers with suitable examples. b) i) Give any two syntheses of quinoline yellow. ii) Give the synthesis and applications of benzocaine. OR c) Discuss Ziegler – Natta polymerization with mechanism. d) What is the method and mechanism of dyeing? e) Give the classification of drugs. f) Write a note on i) Ethylred ii) Coordination polymerization. a) Explain the term co-enzyme. b) What is baker's yeast? c) Discuss the ring cleavage with suitable example. d) Draw two isomeric structures of benzothiophene and write their names. e) Write a note on beta-oxidation of fatty acids. f) Write the structure of cyanine green and alizarine. g) Write the applications of methyl dopa. h) Give difference between Purines and Pyrimidine bases. 				
