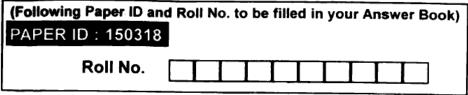
- (b) Structure and function of Retinol
- (c) Structure determination of Thiamine
- (d) Reactions and importance of addition and condensation polymers
- (e) Chemical names, major physiological actions and deficiency diseases of water soluble vitamins.

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**BOP-231** 



B.Pharma. (Semester-III)

## SPL. THEORY EXAMINATION, 2014-15 PHARMACEUTICAL CHEMISTRY-III (HETEROCYCLIC & BIOORGANIC CHEMISTRY)

Time: 3 Hours

[Total Marks: 70

Note. Attempt all questions. All questions carry equal marks.

Q.1. Answer any two questions:

(7x2=14)

- (a) Describe methods of synthesis and chemical properties of Indole OR Furan.
- (b) Note down structure and IUPAC name of five membered heterocyclic compounds with two heteroatoms. Discuss methods of preparation and properties of Thiazole.

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_com			h a fallaccing :				(7::2-14)	
<u>⊒</u>	(c) Writ	e short notes on any two of t	ne following :	Q.3.	Ans	wer any two questions:	(7x2=14)	
luor	i.	Electrophilic vs. nucleophilic substitution reactions of pyridine  Rules for nomenclature of heterocyclic compounds.			(a)	Explain isoelectric point and discuss in detail about determination of N-terminal residues and C-terminal		
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	ii.					residues of a polypeptide chain.		
					(b)	Give detailed classification of amino acids with structures and describe the reactions of amino groups		
	jji.	Synthetic importance of heterocyclic						
	·	compounds.				and carboxylic groups of amino acids.  What are various components of solid phase synthesis? Discuss solid phase peptide synthesis with		
—Q.2.	Answer	any two questions:	(7x2=14)		(c)			
	(a) Exp	(a) Explain about epimers and epimerization. Give				suitable example and mention its advantages over		
	che	chemical evidences in favor of open chain and ring				solution phase synthesis.		
	stru	cture of D-Fructose.		Q.4.	Ans		(3.5x4=14)	
	(b) Hov	w you will differentiate between sugars and non- pars, reducing and non-reducing sugars? Discuss acture determination of a non-reducing				Genetic codes		
	sug				<b>-</b> (a)			
	stru				(D)	Drying of oils		
	disa	accharide.			(c) lodine value			
	(c) Write notes on any two				(d)	Structure and functions of DNA		
	i.	Conversion of an aldohex	ose into aldopentose.		(e)	Explain why oils are liquid and fats a	re solid in nature.	
	ii.	Identification tests of carbohydrates.		Q.5.	Wri	ite short notes on any four of the following: (3.5x4=14		
	iii.	Stereochemistry of carbol	nydrates.		(a)	Classification of polymers		
1503	18]	(2)	1,300	1503	<u>18]</u>	(3)	[Contd	