Enrollment No:	Exam Seat No:
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C.U.SHAH UNIVERSITY

Summer Examination-2018

Subject Name: Natural Products

Subject Code: 5SC04NPC1 Branch: M.Sc. (Chemistry)

Semester: 4 Date: 26/04/2018 Time: 10:30 To 01:30 Marks: 70

Instructions:

- (1) Use of Programmable calculator and any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

SECTION - I

Q-1		Attempt the Following questions	(07)
	a.	Define: Hormones	(1)
	b.	Draw the correct structure of cinchonine.	(1)
	c.	• Write the structure of maltose unit which are present in starch.	
	d.	Define Diel's hydrocarbon with its synthesis.	(2)
	e.	Write the general properties of alkaloids.	(2)
Q-2		Answer the following questions	(14)
	a.	Prove the constitution of cellulose by various chemical reactions.	(7)
	b.	Write a note on tropine with Willstatter's synthesis.	(7)
		OR	
Q-2		Answer the following questions	
	a.	• Write a note on the position of the hydroxyl group and double bond presence in cholesterol.	
	b.	Write synthesis of	(7)
		1. Recinine 2. Nicotine	
Q-3		Answer the following questions	(14)
	a.	Describe a brief note on morphine.	
	b.	Prove the constitution of progesterone with synthesis.	(4)

OR

Q-3		Answer the following questions		
	a.	Write the classification of alkaloids and write the synthesis of testosterone.	(5)	
	b.	Prove the constitution of starch by various chemical reactions.	(5)	
	c.	Write a note on structure of nucleosides.	(4)	
		SECTION – II		
Q-4		Attempt the Following questions	(07)	
k c c c	a.	Draw the structure of chlorophyll-a.	(1)	
	b.	Write the Fisher's synthesis of porphyrin.	(1)	
	c.	Define: Vitamins	(1)	
	d.	Define the term nucleic acid.	(1)	
	e.	Write the Trans form structure of squalene.	(1)	
	f.	Define the term isoprene unit for terpenoids.	(1)	
	g.	Draw the structure of α -tocopherols.	(1)	
Q-5		Answer the following questions	(14)	
	a.	Write the synthesis of heamin.	(7)	
	b.	Prove the constitution of vitamin-B.	(7)	
		OR		
Q-5		Answer the following questions		
	a.	Discuss the chemistry of chlorophyll.	(7)	
	b.	Write the synthesis of biotin.	(7)	
Q-6		Answer the following questions	(14)	
	a.	Write a note on farnesol.	(7)	
	b.	Explain the general method for determining the structure of terpinoids.	(7)	
		OR		
Q-6		Answer the following questions		
	a.	Write a note on gibberellic acid.	(7)	
	b.	Write notes on	(7)	
		1. Zingiberene 2. Abietic acid		

