

SECTION - C

- 13. What is an elimination reaction? Explain with 2 examples.
- 14. Write benzyne mechanism with one example.
- 15. Write a reaction using sodium borohydride as a reducing agent.
- 16. Give a note on Sandmaeyers reaction.
- 17. Write the chemical structure of piperine and how it is synthesized?
- 18. Which is more basic amide or amine? Why?

(Weightage $4 \times 2 = 8$)

SECTION - D

- 19. a) Explain the use of Wilkinson catalyst in organic reaction.
 - b) Write a note on hydroboration reaction.
- 20. a) Write the mechanism of Beckmann rearrangement.
 - b) How are Friedal Craft acylation and alkylation different?
- 21. a) Describe the conversion of alcohols in to aldehydes.
 - b) Explain nucleophilic substitution reaction in haloarenes. (Weightage 2×4 = 8)



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VI Semester B.Sc. Degree (CCSS-Reg./Supple./Improv.)

Examination, May 2016

Core Course in Chemistry

6B15CHE (D): SYNTHETIC ORGANIC CHEMISTRY (Elective)

Time: 3 Hours

Max. Weightage: 25

Instructions: 1) Section A: Answer all the questions. Each question carries a Weightage of 1.

- Section B: Answer any 5 questions. Each question carries a Weightage of 1.
- Section C: Answer any four questions. Each question carries a Weightage of 2.
- Section D: Answer any two questions. Each question carries a Weightage of 4.

SECTION - A

- 1. i) Homolytic fission of C-C bond leads to the formation of
 - a) Carbocation

b) Carbanion

c) Free radical

d) Neutral molecule

- ii) Nitrogen analog of carbene is called
 - a) Nitrene

b) Nitro compound

c) Nitrites

- d) None of these
- iii) Tertiary butyl carbonium ion is stabilized by
 - i) hyper conjugation
 - ii) resonance
 - iii) inductive effect
 - a) i and ii

b) i and iii

c) ii and iii

d) i, ii and iii

11. Define ester hydrolysis.

12. How carbylamine reaction is important?

(Weightage 5×1=5)

	iv) W	hich of the follo	owing contains	a pair of el	ectrons?	
		a)	Carbocation		t) Carbanion	
		c)	Free radical		(d) Neutral mole	ecule
2	. i)	An	example of ele	ectrophile			
		a)	H ₂ O	b) CN-	C) NH ₃ +	d) OH-
	ii)	Org	gano magnesi	um compounds	are known	as	
		a)	Grignard read	gent	, b) Wilkinson ca	atalyst
		c)	Grebbs catal	yst	d) Friedal Craft	catalyst
	iii)	The lea	e reaction betw ds to	veen methyl ket	tone and b	romine in the p	presence of alkene
		a)	Bromoform		b) Methyl bromi	ide
		c)	Acetic acid		d) Ketone	
	iv)	Eth	yl alcohol read	cts with H ₂ SO ₄ a	it 170°C gi	ves	
		a)	Ethyne	b) Ethane	C	Ethene	d) Methane
3.	i)	On	heating maleid	acid at 150°C	gives		
		a)	Formic acid		b	Acetic acid	
		c)	Maleic anhyd	ride	d)	Succinic acid	1
	ii)	Opp	oenaur oxidatio	on is used for the	e preparat	on of	
		a)	Alcohol	b) Amine	c)	Amide	d) Ketone
	iii)	Rec	lucing agent us	sed in Wolf Kish	ner reduct	ion is	
		a)	H_2/N_2		b)	AICI ₃	
		c)	Basic solution	of hydrazine	d)	H ₂ SO ₄	
	iv)	2HC	CHO + NaOH -	→ CH ₃ - OF	lis an exa	mple for	_ reaction.
		a)	Cannizzaro		b)	Gattermann	
		c)	Sandmaeyers		d)	Wittig	

	4. i)	Fu	inctional group ir	coniine is		
		a)	NH	b) NH ₂	c) OH	d) CHO
	ii)	Sy	mmetric cleavag	ge of central C = C bo	nd in carotene gives	
		a)	Vitamin A	b) Vitamin B	c) Vitamin C	d) Vitamin D
	iii)	Ch	olesterol is a			
		a)	alkaloid	b) phytosterol	c) vitamin	d) steroid
	iv)	Tria	alkyl aluminium o	compounds are know	n as	
		a)	Wilkinson catal	yst	b) Zeigler natta cat	alyst
		c)	Wittig reagent		d) None of these	
				× ×	(V	Veightage 4×1 =
				SECTION -	- B	
5.	Wr	nat is	s hyper conjugat	ion?		191
6.	Wh	at is	s benzyne ?			
7.	Wr	ite a	silicone contain	ing organic reagent.		
8.	Exp	olain	Claisen rearran	gement.		
9.	Wh	at is	beta carotene?			
10.	Giv	e the	e structure of dia	zonium salt of aroma	atic amine.	