

B.Sc. Semester - 4 (CBCS) Examination**March/April– 2019****CHEMISTRY (CORE)****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que-1(A)	Answer the following question.	(04)
	(1) Discuss The role of hemoglobin in biological system.	
Que-1(B)	Answer any two question out of three.	(10)
	(1) Describe structure of Ferrocene.	
	(2) Discuss Zeise Salt in Deatil.	
	(3) Discuss the toxic effect of arsenic and mercury.	
Que-2(A)	Answer the following question..	(04)
	(1) Explain uses of noble gases.	
Que-2(B)	Answer any two question out of three.	(10)
	(1) Explain preparation, properties and structure of XeF_4	
	(2) Explain preparation of Ethyl aceto acetate.	
	(3) Explain synthesis of Crotonic acid.	
Que-3(A)	Answer the following question.	(04)
	(1) Write a note on Wolf-Kishner reduction.	
Que-3(B)	Answer any two question out of three.	(10)
	(1) Describe any two methods for the oxidation of carbonyl compounds.	
	(2) Write a note on acidity of carboxylic acid.	
	(3) Explain synthesis of mono carboxylic acid.	
Que-4(A)	Answer the following question.	(04)
	(1) Explain Perkin reaction.	
Que-4(B)	Answer any two question out of three.	(10)
	(1) Write a note on Aldol condensation.	
	(2) Write a note on dipole moment.	
	(3) Write a note on optical activity.	
Que-5(A)	Answer the following question.	(04)
	(1) Explain Zeroth law of thermodynamics	
Que-5(B)	Answer any two question out of three.	(10)
	(1) Explain first law of thermodynamics.	
	(2) Write a note on Joule-Thomson effect.	
	(3) Define the following.	
	(i). Isothermal process.	
	(ii). Adiabatic process.	
	(iii). Reversible process.	
	(iv). Irreversible process	
	(v). Isobaric process	
