JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT TEST -1 EXAMINATION- Feb 2018 B.Tech IInd Semester

B.Tech II nd Semester	
COURSE CODE: 14B11BT211	MAX. MARKS: 15
COURSE NAME: GENRAL CHEMISTRY COURSE CREDITS: 4	MAN CON CO. AND
Note: All questions are compulsory Carrying of mobile phone de	MAX. TIME: 1Hr
treated as case of unfair means. Use of calculator is allowed	
Q1.a) Explain potential energy profile of n-butane as a function of dihedr	al angle by drawing Newman
projection. b) Draw Newman projection of chair form of cylcohexane.	[2.5]
	[0.5]
Q2. a) What are the main factors which influence the strength of acid and b	ases? [1.5]
b) Why reactivity of anion is higher in polar aprotic solvent?c) Why NaCl dissolves in water?	[1.0]
of the first dissolves in water?	[0.5]
Q3. a) What weight of KmnO ₄ will be required to prepare 250 ml of its N/1 is 31.62	O solution if eg. wt of KmnO4
13 31.01	[1.0]
b) A 3.5 g sample of an enantiomer is dissolved in ethanol to make 30 ml of solution. Find the specific rotation at standard condition, if solution has an observed rotation of +2.79° in 10 cm polarimeter. [1.5]	
c) What is enantiomeric excess? [0.5]	
OA a) Assign P/S or E/7 configuration to and Advantage	[5.5]
Q4. a) Assign R/S or E/Z configuration to each of the following compounds.	[1.5]
1) CH8 2) C1 3	1
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$oldsymbol{eta}_{oldsymbol{s}}$,
b) Convert the following Fischer Projection to corresponding Sawhorse and	Newman projections. [1.5]
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HOTEL	
Q5a) Give IUPAC names of the followings?	
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3 Tall	y j
[1] [3]	s (5)
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Q5b) Draw arrow to explain following reaction.	[1.0]
00 Mg/8	
1 + My BY	t t.
	+ Hogel
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