Seat No.:	Enrolment No.	

GUJARAT TECHNOLOGICAL UNIVERSITY B.PHARM - SEMESTER- 3 EXAMINATION - SUMMER -2019

•		Code: BP301TP Date: 28-05-20	19
Subject Name: Pharmaceutical Organic Chemistry II Time: 02:30 PM TO 05:30 PM Instructions: 1. Attempt any five questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks.			60
Q.1	(a) (b) (c)	Explain molecular orbital structure and resonance energy of benzene. Explain effect of substituent on acidity of benzoic acid. Notes on Sachse Mohr's theory.	06 05 05
Q.2	(a) (b) (c)	Why benzene undergoes electrophilic substitution reaction? Explain halogenation reaction of benzene with mechanism. Write down important reaction involve in benzoic acid in detail. Discuss about reaction of cyclopropane and cyclobutane.	06 05 05
Q.3	(a) (b) (c)	Notes on Haworth synthesis for naphthalene and Anthracene. Discuss about Coulson and Moffitts modification of cycloalkanes. Write down structure and medicinal use of Anthracene, diphenylmethane triphenylmethane derivatives.	06 05 05
Q.4	(a) (b) (c)	Write a notes on acidicity and effect of substituents of phenol. Discuss the molecular orbital structure of naphthalene? What happen when (a) Naphthalene is treated with concentrated sulphuric acid at 165°C. (b) Anthracene is treated with sodium dichromate and sulphuric acid.	06 05 05
Q.5	(a) (b) (c)	Write down significance and principle involve in determination of (a) RM value (b) Acetyl value (c) Ester value (d) Iodine value Notes on synthetic use of aryl diazonium salts. Explain (a) Why phenol is more acidic than ethyl alcohol? (b) Why o-nitrophenol is steam volatile whereas p-nitrophenol is not?	06 05 05
Q. 6	(a)	How will you synthesise the following compounds from benzene (a) Benzene hexachloride (b) Ethylbenzene (c) Isopropylbenzene (d) Cyclohexane	06
	(b) (c)	Write down structure and use of following compounds (a) DDT (b) Saccharin (c) Cresol Notes on inductive group and its directing effect in monosubstituated benzene.	05 05
Q.7	(a) (b)	Explain hydrogenation of oil with diagram. Discuss significance and principal of acid value and saponification value. Notes on a Fridel crafts alkylation and acylation of benzene	06 05
	(c)	Discuss Bayer's strain theory with suitable examples.	05
