

C.U.SHAH UNIVERSITY

Winter Examination-2018

Subject Name: Industrial Chemistry-II

Subject Code: 4SC06CHE1

Branch: B.Sc. (Chemistry)

Semester: 6

Date: 01/11/2018

Time: 02:30 To 05:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator & 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.

- Q-1 Attempt the following questions: (14)**
- a. Define: Varnish **01**
- b. Define : Activators **01**
- c. Complete the following reaction **01**
$$\text{Cl-CH}_2\text{-CH}_2\text{-Cl} + \underline{\hspace{2cm}} \rightarrow [-\text{CH}_2\text{-CH}_2\text{-S-S-}]_n + 2\text{NaCl}$$
$$\begin{array}{c} \parallel \parallel \\ \text{S S} \end{array}$$
- d. What is RDX? **01**
- e. Write any two examples of high explosive. **01**
- f. Draw the structure of diphenyl guanidine. **01**
- g. Complete the following chemical reaction: **01**
$$4 \text{K}_2\text{SO}_4 + 7\text{C} \rightarrow 2 \underline{\hspace{2cm}} + 2\text{K}_2\text{S}_2 + 5\text{CO}_2$$
- h. What is viscosity index (VI)? **01**
- i. Write the uses and physical properties of TNT. **02**
- j. What are the uses of paints and pigments **02**
- k. Write the physical properties of rubber. **02**

Attempt any four questions from Q-2 to Q-8

- Q-2 Attempt all questions (14)**
- a. Write a note on **07**
(a) Carter process and (b) Electrolytic method.
- b. Write a note on atom and hydrogen bomb. **07**
- Q-3 Attempt all questions (14)**
- a. Discuss the classification of crude natural rubber in detail. **07**
- b. Write a note on **07**
(a) Latex and (b) Silicon rubber
- Q-4 Attempt all questions (14)**
- a. Write a note on the manufacturing process of paints with proper diagram. **07**



	b. Gives the classification of paints based upon application.	07
Q-5	Attempt all questions	(14)
	a. Write a note on varnish.	07
	b. Discuss the manufacturing process of white lead.	07
Q-6	Attempt all questions	(14)
	a. Explain classification of lubricants.	07
	b. Write the different properties of lubricants.	07
Q-7	Attempt all questions	(14)
	a. Explain the procedure for measuring flash and fire point.	07
	b. Discuss the lubricating greases.	07
Q-8	Attempt all questions	(14)
	a. Write a note on	05
	(a) Buna-N and (b) Butyl rubber	
	b. Write the properties of vulcanization rubber.	05
	c. Write a note on Thiokol rubber.	04

