

Enrollment No: \_\_\_\_\_ Exam Seat No: \_\_\_\_\_

# C.U.SHAH UNIVERSITY

## Summer Examination-2017

Subject Name: Industrial Chemistry-II

Subject Code: 4SC06CHE1

Branch: B.Sc. (Chemistry)

Semester: 6

Date : 25/04 /2016

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 : Industrial chemistry      **01**
  - b) Draw the structure of Quinacridone      **01**
  - c) Define : Activators      **01**
  - d) Define : Lubricant      **01**
  - e) Define : Paints and pigments      **01**
  - f) Draw the structure of Neoprene      **01**
  
  - g) Write the any two examples of Accelerators.      **01**
  - h) Complete the following reaction      **01**  
$$\text{Cl-CH}_2\text{-CH}_2\text{-Cl} + \text{_____} \rightarrow \text{[-CH}_2\text{-CH}_2\text{-S-S-]}_n + 2\text{NaCl}$$

$$\begin{array}{c} \parallel \parallel \\ \text{S S} \end{array}$$
  
  - i) Write the formula of Viscosity index      **01**
  - j) Write the unit of Viscosity.      **01**
  - k) Write the uses and physical properties of RDX.      **01**
  - l) Write the types of Varnishes.      **01**
  - m) Write the uses of Pigments.      **01**
  - n) Write the uses of Detonators.      **01**

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

- Q-2**      **Attempt all questions**      **(14)**
- A      Discuss the Dutch process      **07**
  - B      Explain manufacturing process of paints      **07**
- Q-3**      **Attempt all questions**      **(14)**
- A      Write the physical and chemical properties of rubber.      **05**
  - B      Write notes on (i) SBR Rubber and (ii) Neoprene      **05**
  - C      Discuss the physical properties of Vulcanized rubber      **04**



<b>Q-4</b>	<b>Attempt all questions</b>	<b>(14)</b>
<b>A</b>	Explain classification of lubricants	<b>07</b>
<b>B</b>	Explain the procedure for measuring pour point and flash point of lubricant	<b>07</b>
<b>Q-5</b>	<b>Attempt all questions</b>	<b>(14)</b>
<b>A</b>	Explain classification of Explosive	<b>05</b>
<b>B</b>	Write the applications of propellant	<b>05</b>
<b>C</b>	Write notes on Atom and Hydrogen bomb.	<b>04</b>
<b>Q-6</b>	<b>Attempt all questions</b>	<b>(14)</b>
<b>A</b>	Discuss the classes of varnish according to gallon of oil used.	<b>07</b>
<b>B</b>	Write notes on (i) Carter process and (ii) Electrolytic method.	<b>07</b>
<b>Q-7</b>	<b>Attempt all questions</b>	<b>(14)</b>
<b>A</b>	Write notes on (i) Coagulation of rubber and (ii) Latex	<b>05</b>
<b>B</b>	Write notes on (i) Buna-N and (ii) Butyl rubber	<b>05</b>
<b>C</b>	Write a note on Thiokol rubber	<b>04</b>
<b>Q-8</b>	<b>Attempt all questions</b>	<b>(14)</b>
<b>A</b>	Discuss the different properties of lubricants.	<b>07</b>
<b>B</b>	Discuss tests carried out on lubricants. Explain any five	<b>07</b>

