

C.U.SHAH UNIVERSITY

Summer Examination-2019

Subject Name: Industrial Chemistry - III

Subject Code: 4SC06IDC1

Branch: B.Sc. (Chemistry)

Semester : 6

Date : 02/05/2019

Time : 10:30 To 01:30

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: Flash point	01
b)	Which plasticizers are used in the manufacturing of varnishes?	01
c)	Give any three examples of military explosives	01
d)	How cordite is prepared?	01
e)	What is pigment value concentration (PVC)?	01
f)	Write the constituents of white pigments used in the paint.	01
g)	What is the role of antioxidants materials in production of crude rubber?	01
h)	Which constituents are used in exterior house paints.	01
i)	Write the composition of blasting dynamite.	01
j)	Complete the following reaction	01
	$2\text{CH}\equiv\text{CH} \quad \underline{\hspace{2cm}}$	
k)	Give the preparation and uses of cyclo rubber.	02
l)	Write any four functions of a lubricant.	02

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

Q-2	Attempt all questions	(14)
a.	Discuss the pigments with suitable examples.	07
b.	Explain the manufacturing process of white lead with appropriate labeled diagram.	07
Q-3	Attempt all questions	(14)
a.	Write a note on emulsion paints.	05
b.	Discuss the requirements of good paints in detail.	05
c.	Write characteristics of explosives.	04
Q-4	Attempt all questions	(14)



a.	What is explosive? Classify it and Discuss any two types with suitable examples.	07
b.	Write the preparation and applications of single compound explosives.	07
Q-5	Attempt all questions	(14)
a.	What is propellant? Write classification of propellants.	07
b.	Discuss rocket propellants and characteristics of a good propellant.	07
Q-6	Attempt all questions	(14)
a.	Explain: the techniques of vulcanization in detail.	05
b.	Write a note on Gutta percha.	05
c.	Give the drawbacks of raw rubber.	04
Q-7	Attempt all questions	(14)
a.	Discuss the processes performed to obtained crude rubber products.	07
b.	Explain viscosity, viscosity index and volatility tests carried out on lubricants.	07
Q-8	Attempt all questions	(14)
a.	Discuss about lubricant emulsions.	05
b.	Explain in brief: Substances used as lubricants.	05
c.	Write a short note on selection of lubricants.	04

