



RA-0718

Second Year B. Sc. Examination

March / April – 2010

Industrial Chemistry (Vocational) : Paper - III
(Material Science)

Time : Hours]

[Total Marks : 70

Instructions :

(1)

नीचे दर्शायेव निशानीवाणी विगतो उत्तरवडी पर अवश्य कपनी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="S. Y. B. Sc."/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="Industrial Chemistry (Vocational) : Paper - 3"/>	<input type="text"/>
Subject Code No. : <input type="text" value="0"/> <input type="text" value="7"/> <input type="text" value="1"/> <input type="text" value="8"/>	<input type="text"/>
Section No. (1, 2,.....) : <input type="text" value="Nil"/>	<input type="text"/>
	Student's Signature

- (2) All sub questions of question no. 1 are **compulsory**.
(3) Give diagrams and equations wherever **necessary**.
(4) Figures to the **right** indicate full marks of the question.

- 1 Answer the following questions in short : 15
- Write any two uses of copper.
 - What is thermoset polymer?
 - What is plasticity?
 - Give composition of ordinary cement.
 - What is BOD?
 - What is glazing?
 - Give sources of soil pollution.
 - Write two names of synthetic organic polymers.
 - What is clay?
 - State different types of stainless steel.
 - Give composition of acid resistant cement.
 - What is the limit of TDS in potable water?
 - Define fermentation.
 - Define water pollution.
 - What is dry corrosion?

- 2 (a) Discuss the composition of steel and stainless steel. 4

OR

- (a) Write notes on : 4
- High alumina cement
 - Blast furnace cement
 - Pozzuolana cement.

- (b) Write the properties and uses of modular cast iron. 4
- OR**
- (b) Give an account of copper and its alloy with classification. 4
- (c) Write a short note on white cast iron. 3
- 3** (a) Discuss constitution, chemical and physical properties of polystyrene. 4
- OR**
- (a) Discuss constitution, chemical and physical properties of polyvinyl acetate. 4
- (b) Give a general classification of refractories. 4
- OR**
- (b) Give an account of glazing. 4
- (c) Discuss the characteristics of good polymers. 3
- 4** (a) State different methods used for protection against corrosion and discuss cathodic protection in it. 4
- OR**
- (a) Write a note on stress corrosion. 4
- (b) Describe the industrial manufacturing process of lactic acid with a neat flow sheet diagram. 4
- OR**
- (b) Write the industrial preparation of vinegar and acetic acid. 4
- (c) Explain in details : Wet corrosion. 3
- 5** (a) Enlist the source of water pollution and the harmful effect of water from such sources. 4
- OR**
- (a) What are particulates? Explain the role of particulates in air pollution. 4
- (b) Give different sources and effects of carbon monoxide. 4
- OR**
- (b) Write a detailed note on hydrosphere. 4
- (c) Explain pesticide cycle in the environment. 3
- 6** (a) Give different sources of noise pollution. 4
- OR**
- (a) Explain in detail : anaerobic digestion. 4
- (b) Explain coagulation and flocculation of water. 4
- OR**
- (b) Write note on BOD and COD. 4
- (c) Give composition of air and atmosphere. 3