



RM-7021-R

B. E. - III (Sem. VI) (Chemical) Examination

May / June - 2010

Gen. Chemical Tech. - II

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दशांशवले निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
B. E. - 3 (Sem. 6)	<input type="text"/>
Name of the Subject :	<input type="text"/>
Gen. Chemical Tech. - 2	<input type="text"/>
Subject Code No. : <input type="text"/> 7 <input type="text"/> 0 <input type="text"/> 2 <input type="text"/> 1	Section No. (1, 2,.....): <input type="text"/> 1&2
Student's Signature	

- (2) Figures to the right indicate full marks.
- (3) Draw neat labelled flow diagrams whenever required.
- (4) Answer each section **separately**.

SECTION - I

- 1 (a) Answer the following : 10
(Que. 1-2, 1 mark each, Que 3-6 2 marks each)
 - (i) Basic Chemistry of PVC.
 - (ii) Define Petrochemicals
 - (iii) Important physical properties of Rubber Products.
 - (iv) Additives used in gasoline to enhance octane number.
 - (v) Enlist methods for production of LPG.
 - (vi) Enlist methods of treatment of Lubes.
- (b) Discuss raw materials for petrochemicals. 5
- (c) Explain solution polymerization and emulsion polymerization. 5

2 Attempt any **two** : **7×2=14**

- (i) Explain Ethanolamine treatment.
- (ii) Discuss ASTM distillation test method with characteristic curve.
- (iii) Discuss furfural extraction process for lube oils.

3 Attempt any **two** : **8×2=16**

- (i) Discuss viscous rayon production.
- (ii) Explain manufacturing of SBR with neat flow diagram.
- (iii) Chemicals from C₃ compounds.

SECTION - II

4 (a) Answer the following : **10**

- (i) Write the complete chemical reaction for ascorbic acid, Vitamin C
- (ii) Give the uses of
 - (a) Disperse dyes
 - (b) Salicylic acid
- (iii) Write the complete chemical reaction for Aspirin.
- (iv) Define chromophores with examples.
- (v) Write structural formula :
 - (a) Diazepam
 - (b) Barbitol
- (b) Discuss the manufacture of anilin from crude **8**
nitrobenzene with chemical reactiopn and neat-clean
flow diagram.

5 Attempt any **two** : **16**

- (a) What is antibiotics? Discuss manufacture of penicillin with neat-clean flow sheet.
- (b) Describe in detail manufacture of H-acid reaction and neat-clean flow diagram.
- (c) What is bio-synthesis? Compare bio-synthesis and chemical synthesis of insecticide.

6 Attempt any **two** : **16**

- (a) What is dye? Give detail classification of dye based on their application giving example.
- (b) Discuss the manufacture of Reboflavin and Thiamin hydrochloride.
- (c) Discuss growth of micro-organisms in an aerobic batch fermentor.
