



SE-8131

B. E. II (Sem. III) (T.P.) Examination

May / June – 2011

Polymer Chemistry  
(New Course)

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दृशविले निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी.  
Fillup strictly the details of signs on your answer book.

Name of the Examination :  
B. E. 2 (Sem. 3) (T.P.)

Name of the Subject :  
Polymer Chemistry (New)

Subject Code No. : 8 1 3 1 Section No. (1, 2,.....) : 1&2

Seat No. :

Student's Signature

- Answers to the two sections must be written in same answer book.
- Figures to the right indicate full marks.

SECTION I

- Q.1 a) Answer the following objective questions. (10)
- What is difference between silicon and silicone?
  - is the repeat unit of cellulose.
  - is the solvent PAN.
  - In nylon 66, what does the first digit '6' indicates?
  - Name the raw material of polyvinyl alcohol.
  - Fully aliphatic polyesters have very limited applications due to-----.
  - Give an example of amino acid based raw material of nylon.
  - Poly m-phenylene iso phthalamide is nothing but -----.
  - The process by which a network of cross links is introduced in rubber is called as-----.
  - Textile grade polyvinyl acetate is produced by -----polymerization method.
- b) Discuss the production, properties and applications of LDPE. (10)

- Q.2 a) Discuss the production, properties and applications of IPP. (08)
- b) Describe production, properties and application of polymethyl methacrylate. (07)

OR

Q.2 Discuss in detail various ecological aspects of polymers. (15)

Q.3 Write short notes on any three of the following (15)

- a) Silicone Elastomers
- b) Melamine formaldehyde.
- c) Different copolymers of Polystyrene
- d) Epoxy resin

SECTION II

Q.4 a) Fill in the blanks: (10)

- i) Polymer chloride finds extensive use in certain formulations called \_\_\_\_\_ and \_\_\_\_\_
- ii) \_\_\_\_\_ is known as 'Teflon'.
- iii) When two repeat units are distributed alternately through the chain the polymer is called \_\_\_\_\_ Copolymer.
- iv) \_\_\_\_\_ rubber is a highly soft and elastic material.
- v) Polyvinyl acetate is \_\_\_\_\_ with an alkali to give polyvinyl alcohol.
- vi) In substituent reaction we need saturated polymers-True or False.
- vii) The nitro groups present in a polymer may be converted to Amino groups by reduction -True or False.
- viii) Poly vinyl chloride is an example of organic polymer -True or False.
- ix) Bakelite is an example thermosetting polymer-True or False.
- x) IPP is suitable for fibre -True or False.
- b) Information about X-Ray diffraction method for testing of polymers. (05)
- c) Discuss osmometry method in detail (05)

