

17347

21718

3 Hours / 100 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Assume suitable data, if necessary.
 - (5) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following :

20

- (a) Write the classification of textile fibres.
- (b) Draw morphological structure of cotton fibre.
- (c) Explain manufacturing process of Nylon-66 fibre.
- (d) Give two physical properties and uses of polyethylene.
- (e) Write the sizing recipe formulation of medium count cotton yarn and fine count cotton yarn.
- (f) Write two physical and chemical properties of adhesives and softener.
- (g) Write object of shearing process.

2. Attempt any FOUR of the following :**16**

- (a) Write any four chemical properties and uses of viscous rayon.
- (b) Explain the grading of wool and state its importance.
- (c) Explain the manufacturing process of polyacrylonitrile.
- (d) Give chemical structure of raw-material used for Nylon 6, 6 fibre and also give chemical reaction for formation of Nylon 6, 6 polymer.
- (e) Write two physical and chemical properties of antiseptic agents.
- (f) What is the object of desizing ?

3. Attempt any FOUR of the following :**16**

- (a) Explain the dry spinning process of acetate rayon.
- (b) Give two physical properties and two uses of polypropylene.
- (c) Explain the testing of softeners.
- (d) What is Saponification ? Explain the scouring process in kier.
- (e) Explain continuous bleaching process with neat labelled diagram.
- (f) What are the different methods of singeing ?

4. Attempt any FOUR of the following :**16**

- (a) (i) What is Retting of Jute ?
- (ii) Compare poly condensation reaction with poly addition reaction. (any 2 points)
- (b) Explain the method for determination of viscosity of starches.
- (c) Distinguish between CMC & boiling starch.
- (d) Write four physical and chemical properties of adhesives used in sizing paste.
- (e) What are the objects of desizing and bleaching ?
- (f) Explain the advantages and limitations of continuous pre-treatment process.

5. Attempt any FOUR of the following :**16**

- (a) What are regenerated fibres ? Give the raw materials for any two regenerated fibres.
- (b) Compare dry spinning with melt spinning.
- (c) Describe the role of antiseptic agents and deliquescents in sizing.
- (d) What is acid value and iodine value ? Explain the method for determination of SAP values of softeners.
- (e) Explain the process of enzyme desizing.
- (f) Why hydrogen peroxide is called as universal bleaching agent ? State any four reasons.

P.T.O.

6. Attempt any **FOUR** of the following :

16

- (a) Explain the process for wet processing of 100% cotton with flow chart.
 - (b) Write four physical and chemical properties of Nylon 6 fibre.
 - (c) Explain the role of wetting agents and anti-foaming agents in sizing.
 - (d) Explain acid desizing method.
 - (e) Write advantages of batch and continuous process.
 - (f) Give the objects of singeing. Explain the gas singeing method.
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