17347

21415

3 Hours/100 Marks

Seat No. | | | | | | | | |

Instructions *: (1)* ***All*** *questions are* ***compulsory****.*
(2) Illustrate your answers with neat sketches ***wherever necessary****.*
(3) Figures to the ***right*** *indicate* ***full*** *marks.*
(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. Solve **any five** : **20**

   a) Write the classification of Textile fibres.

   b) Write the molecular structure of repeat unit of Nylon 66 and polyester.

   c) What are the objects of sizing ? For which type of fibres is sizing essential ?

   d) What are regenerated fibres ? Give the raw materials for any two regenerated fibre.

   e) Compare polycondensation reaction with polyaddition reaction.

   f) Give the process flow chart of wet processing. Why it is necessary to give pre treatments.

   g) Classify the water based sizing ingredients.

2. Solve **any four** : **16**

   a) Draw the morphological structure of cotton and wool.

   b) Compare dry spinning with melt spinning.

   c) Write four functions each of

      i) Softening agent

      ii) Antistatic agent.

   d) Why it is necessary to do shearing of fabrics ?

   e) Explain the congealing property of starch.

   f) What are the objects of singeing and bleaching ?

P.T.O.

MARKS

3. Solve **any two** : **16**

   a) Explain with flow chart the manufacturing process of Viscose Rayon.

   b) Write the monomer and polymerisation process of Nylon 6. Also write four physical and chemical properties of Nylon 6 fibre.

   c) Explain the testing of softeners.

4. Solve **any two** : **16**

   a) Explain the manufacturing process of polyacrylonitrile and also write its end uses.

   b) Write the physical and chemical properties of antiseptic agents and adhesives used in sizing paste.

   c) What are the different methods of singeing ? Explain any one method in detail with diagram.

5. Solve **any two** : **16**

   a) Write the physical and chemical properties of cotton and silk.

   b) i) Give the size receipe for polyester cotton blended yarn.

      ii) Compare thin boiling starch with CMC.

   c) What is saponification ? Explain the scouring process in kier.

6. Solve **any two** : **16**

   a) Write four physical and chemical properties each of

      i) Acetate Rayon

      ii) Polyester.

   b) With line diagram explain continuous bleaching process in detail. Write its advantages and limitations.

   c) What is the object of desizing ? Explain acid desizing method.
