17226

21314

3 Hours/100 Marks

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

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) Figures to the ***right*** *indicate* ***full*** *marks.*
(5) ***Assume*** *suitable data,* ***if*** *necessary.*

MARKS

1. Attempt **any five** : **20**
   a) Define the following term :
      i) Random samples
      ii) Biased samples.
   b) Write the burning characteristics of wool and cotton.
   c) Define the uniformity ratio and span length.
   d) Define the following term :
      i) Micronnaire ii) Denier
      iii) Deitey iv) Tex.
   e) Explain the concept of fibre fineness.
   f) What is maturity of fibre and give its significance.
   g) State the concept of trash and Neps.

2. Attempt **any two** : **16**
   a) i) State the objects of textile testing.
      ii) State the importance of sampling.
   b) i) Define moisture content and moisture regain.
      ii) Explain the concept of relative humidity with some examples.
   c) i) State the importance of fibre length.
      ii) Describe the comb sorter method to determine the fibre length.

P.T.O.

MARKS

3. Attempt **any four** : **16**
   a) How cotton and wool fibre can identify by microscopic test ?
   b) State the concept of numerical and length biased sampling technique.
   c) Define the 2.5% span length and 50% span length ? State the meaning of uniformity ratio.
   d) Describe the air flow principle to measure the micronnaire value.
   e) Give detail classification of trash.
   f) Draw the schematic figure of shirty trash analyzer and explain its working.

4. Attempt **any two** : **16**
   a) i) Describe the cut squaring method of sampling.
      ii) Write the effects of moisture regain on fibre properties.
   b) i) Describe the caustic soda method to determine the maturity of fibre.
      ii) Explain the various factors which affect the maturity of cotton.
   c) i) Draw the schematic figure of comb sorter diagram and list the various parameter.
      ii) Explain the gravimetric method to measure fibre fineness.

5. Attempt **any two** : **16**
   a) i) What is effective length and mean length ?
      ii) Explain digital fibrograph method to measure fibre length.
   b) Describe the microscopic method to measure fibre fineness.
   c) i) Explain hand stapling methods to measure the fibre length.
      ii) State the various causes of Nep generation.

6. Attempt **any two** : **16**
   a) i) State the importance of fibre fineness.
      ii) Define mature fibre and immature fibre.
   b) Describe the oil plate method to measure the fibre length.
   c) i) State the concept of uniformity index.
      ii) Describe the procedure to measure the fibre fineness by cut and weight method.
