

17569

21819

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) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (7) 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) List the various projectiles used in shuttleless loom with special features.
 - b) Classify the Rapier looms.
 - c) State the function of tandem nozzels.
 - d) State the objects of weft accumulator.
 - e) Classify the classification of nonwoven.
 - f) State any eight application of nonwoven fabric.
 - g) State the importance of geo-textiles in filtration.
 - h) Classify the geo-textiles along with their functions.

P.T.O.

- 2. Attempt any TWO of the following:** **16**
- a) List down and explain merits and demerits of shuttle looms.
 - b) Describe picking cycle and projectile loom.
 - c) Explain various types of geo-textiles.
- 3. Attempt any TWO of the following:** **16**
- a) Describe cycle operation of weft insertion on flexible rapier loom.
 - b) Describe with neat sketch working of mono-jet on air jet loom.
 - c) Compare any eight points between air jet and water jet.
- 4. Attempt any TWO of the following:** **16**
- a) Explain the precautions to be taken in warping, sizing and drawing in department for shuttle less looms.
 - b) List down various methods of web preparation. Explain any one method of web preparation.
 - c) Describe mechanical bonding (needling technique) with the help of neat diagram. Also explain the factors affecting properties of needle punched non-woven.
- 5. Attempt any TWO of the following:** **16**
- a) Describe various dry methods of web preparations being used for manufacturing non-wovens.
 - b) Explain any eight uses of geo-textiles.
 - c) State the salient features of Rapier loom. Also explain the Bi-phase rapier weaving machine.
- 6. Attempt any TWO of the following:** **16**
- a) Describe cycle operation on flexible rapier loom.
 - b) Draw diagrams and describe different types of selvages used on shuttleless looms.
 - c) Explain air quality requirement air compressor and distribution system of air jet loom.
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