11819 3 Hours / 100 Marks Seat No. Instructions: All Questions are compulsory. (1) (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) State objects of heat setting. Enlist the different types of setting. (b) Explain the mechanism of heat setting. (c) What are the various stages of heat setting? (d) Define pilling. Give mechanism of pilling. State factors affecting pilling of textiles. (e) Define the term "Foam" and "Blow ratio" and also give its significance. (f) Give the advantages and disadvantages of foam finishing. (g) 2. Attempt any TWO: 16

(a) Explain the structural changes brought about by heat setting.

(b) Define soil. Mention types of soils and also explain mechanism of soiling.

(c) Describe finishing of knitted fabrics.

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3. Attempt any TWO: 16 Write and explain the factors affecting the stability of foam. What is micro fibre? State and explain the different finishes used for finishing (b) of microdenier polyester fabrics. Explain any two methods for reducing pilling. (c) 4. Attempt any TWO: 16 (a) Write down the heat setting conditions for 100% PET, Textured PET, P/V and P/W fabrics. (b) Mention the properties of foam and write a note on stability of foam. Give a method of evaluating efficiency of soil release finishing. (c) 5. **Attempt any TWO:** 16 (a) Explain the concept of macro, micro and nano emulsion. (b) Describe the various applications of nanotechnology in textile finishing. (c) State and explain various types of soil release finishing agents. Attempt any TWO: 6. 16 (a) Explain the various methods of foam application. (b) Describe microencapsulation in textile finishing. Write down the procedure of evaluating the efficiency of heat setting by (c) (i) shrinkage method. Define the term "Nano". Write down any two advantages and two (ii) limitations of nano finishing.