

# 17566

**14115**

**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) Write down the procedure of evaluating the efficiency of heat setting by shrinkage method.
  - b) What are the objectives of heat setting? Also enlist the different types of setting.
  - c) What are the factors affecting pilling of textiles.
  - d) Define the term 'Foam' and 'Blow ratio' and also give its significance.
  - e) Explain the different types of soils.
  - f) Give the procedure of finishing polyester for achieving silk finish.
  - g) Write a note on the latest finishes used for textiles.

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- 2. Attempt any FOUR of the following :** **16**
- a) Explain the mechanism of heat setting.
  - b) Enlist and explain in brief the various physical methods for minimizing pilling.
  - c) Enlist the essential and desirable properties of foam to be used for foam finishing.
  - d) What are the factors affecting the soiling of fabrics?
  - e) Write a note on the finishing of worsted woollen fabrics.
  - f) Define the term 'Nano'. Write down any two advantages and two limitations of nano finishes. Give one example.
- 3. Attempt any FOUR of the following :** **16**
- a) Explain the structural changes taking place due to heat setting.
  - b) Explain any two methods of minimizing pilling.
  - c) Enlist the advantages of foam finishing. Also state its importance.
  - d) Write down the objectives of soil release finishes.
  - e) Write a detailed note on the finishing of knitted fabrics.
  - f) What is microencapsulation ? Explain its application in textile finishing.
- 4. Attempt any FOUR of the following :** **16**
- a) Explain the stages at which the heat setting of textiles can be done.
  - b) Write and explain the mechanism of pilling.
  - c) Write down the factors affecting the stability of foam.
  - d) Write the procedure of evaluating the efficiency of soil release finishing agent.
  - e) What is micro fibre ? Explain the different finishes used for finishing of microdenim polyester fabrics.
  - f) Write a note on the Novel finishes used for finishing of textiles.

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

- a) Write down the heat setting conditions during heat setting of 100% PET, Textured PET, PC and PW fabrics.
- b) Explain the factors affecting the process of foam application on textiles with an appropriate example.
- c) With two examples each, explain the concept of macro, micro and nano emulsion w.r.t. textiles.

**6. Attempt any TWO of the following : 16**

- a) Explain the various methods of foam application.
  - b) Give the mechanism of soiling. Explain the various methods of soil release finishing agents.
  - c) Describe the various applications of nano technology in textile finishing.
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