# 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) Figures to the right indicate full marks.
- (4) Assume suitable data, if necessary.

Marks

## 1. Answer any TEN:

 $10 \times 2 = 20$ 

- (a) Enlist any four functions of thickeners.
- (b) Explain the rheological behaviour of thickeners.
- (c) Define the term 'Printing'.
- (d) Explain the tie and dye method of colouration of textiles.
- (e) What is block method of printing?
- (f) Explain the term mesh number.
- (g) Enlist the different types of rotary screens used for printing of textiles.
- (h) Write technical features of table printing.
- (i) Which material is used for preparing flat bed screens? What is the fabric called?
- (j) Enlist the different methods of print fixation.
- (k) Which are the chemicals in print paste formulation facilitating the fixation of colours?
- (l) What are the different mechanisms of print fixation?
- (m) Write the recipe of Khadi printing.
- (n) Define pigments. How do they differ from dyes?
- (o) How are pigments held on the fabric after the printing?



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## 2. Answer any FOUR:

 $4 \times 4 = 16$ 

- (a) Justify the importance of pretreatments from printing point of view.
- (b) Draw a neat labelled diagram of a flat bed screen printing machine.
- (c) With a neat diagram, explain the different types of squeeze used in rotary screen printing machine.
- (d) Describe a method of fixation of prints.
- (e) Enlist and explain the distinct steps involved in the pigment printing of cotton.
- (f) Write down the print paste formulation and procedure for printing of wool using acid dyes by direct style.

## 3. Answer any FOUR:

 $4 \times 4 = 16$ 

- (a) Enlist the ingredients of a printing paste. Also mention the function of any four ingredients.
- (b) Explain the batik printing process.
- (c) Write down any two advantages and limitations of different squeezes used in rotary screen printing machine.
- (d) Write the recipe and the procedure of printing direct dyes in cotton using discharge style of printing.
- (e) Explain the principle and write down the recipe and procedure of crimp style of printing.
- (f) Describe preparation of wool fabric from printing point of view.

## 4. Answer any FOUR:

 $4 \times 4 = 16$ 

- (a) Write down the classification of thickeners.
- (b) Name different methods of printing. Explain any one.
- (c) Write down the technical features of rotary screen printing machine.
- (d) What is magic printing? Write its principle.
- (e) Write down print paste formulation for direct style of printing using azoic dye.
- (f) Name different types of binders and thickeners used in pigment printing.

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## 5. Answer any FOUR:

 $4 \times 4 = 16$ 

- (a) Explain the principles involved in different styles of printing.
- (b) Explain the screen preparation procedure in case of flat bed screens.
- (c) Write down the recipe and the procedure for printing of cotton using reactive dyes by direct style.
- (d) Describe printing of cotton using azoic colours.
- (e) Write down the print paste recipe and procedure for pigments printing.
- (f) How is silk fabric printed with basic dyes by direct method? Write its recipe and procedure.

#### 6. Answer any TWO:

 $2 \times 8 = 16$ 

- (a) Explain selection criteria of thickeners for various dyes.
- (b) Write the process sequence and the screen exposing procedure for preparation of design on rotary screens.
- (c) Draw a neat labelled diagram of a star ager and rapid ager and mention the conditions employed for fixation of prints.

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