

# Unit 7 - Week 5

## Course outline

How does an NPTEL online course work?

### Assignment Zero

### Week 1

### Week 2

### Week 3

### Week 4

### Week 5

● Introduction to Digital Textile Printing

● Digital Textile Printing: Inkjet Technologies

○ Quiz : Assignment 5

○ Week 5 Feedback Form

### Week 6

### Week 7

### Week 8

### Text Transcripts

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## Assignment 5

The due date for submitting this assignment has passed.  
As per our records you have not submitted this assignment.

**Due on 2020-03-04, 23:59 IST.**

**Note: Choose correct options from question 1-9. More than one answer may be correct. Question 10 is NAT type. All questions carry 2 marks**

1) The partition isotherm of disperse dye 2 points

- Is in favour of the fibre when dyeing is done in aqueous medium
- Is in favour of the fibre when dyeing is done in organic solvent
- Is dependent on the chemical structure
- Does not depend on the chemical structure

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Is in favour of the fibre when dyeing is done in aqueous medium*  
*Is dependent on the chemical structure*

2) Continuous transfer printing of polyester fabric 2 points

- Is done on cylinder drying machine
- Is done on calendar drying machine
- Can be done on palmer drier
- Requires festoon drying machine

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Is done on calendar drying machine*  
*Can be done on palmer drier*

3) Consider the following assertion (A) and reason (R) in the context of wet transfer printing of wool with Lanazol dyes 2 points

- (A) Wool fabric is pre-treated with viscous acid solution
- (R) Reaction takes place in acid medium.

Choose the correct option.

- Both (A) and (R) are correct
- Both (A) and (R) are wrong
- (A) is correct (R) is wrong
- (A) is wrong (R) is correct

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Both (A) and (R) are correct*

4) Consider the following assertion (A) and reason (R) in the context of transfer printing of acrylic fabrics 2 points

- (A) Thermal transfer printing can be accomplished with basic dyes in acid medium
- (R) Acid treated basic dyes behave like disperse dyes

Choose the correct option.

- Both (A) and (R) are correct
- Both (A) and (R) are wrong
- (A) is correct (R) is wrong
- (A) is wrong (R) is correct

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Both (A) and (R) are wrong*

5) Consider the following assertion (A) and reason (R) in the context of thermal transfer printing 2 points

- (A) The concentration of the dye vapour at a constant vapour pressure would increase with an increase in temperature
- (R) Increase in temperature increases the kinetic energy.

Choose the correct option.

- Both (A) and (R) are correct
- Both (A) and (R) are wrong
- (A) is correct (R) is wrong
- (A) is wrong (R) is correct

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*(A) is wrong (R) is correct*

6) Consider the following assertion (A) and reason (R) in the context of digital printing 2 points

- (A) Digital printing is a green technology.
- (R) It does not require pretreatment or post treatment

Choose the correct option.

- Both (A) and (R) are correct
- Both (A) and (R) are wrong
- (A) is correct (R) is wrong
- (A) is wrong (R) is correct

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*(A) is correct (R) is wrong*

7) Consider the following assertion (A) and reason (R) in the context of digital printing 2 points

- (A) This technology can produce photographic images with just four colours
- (R) Millions of shades can be obtained by mixing these colours within the print head itself.

Choose the correct option.

- Both (A) and (R) are correct
- Both (A) and (R) are wrong
- (A) is correct (R) is wrong
- (A) is wrong (R) is correct

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*(A) is correct (R) is wrong*

8) Ploy (vinyl butyral) 2 points

- Is a crosslinking agent
- Is a film forming polymer
- Is a good binder for printing of paper for thermal transfer
- Contains two oxygen molecules

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Is a film forming polymer*  
*Is a good binder for printing of paper for thermal transfer*

9) The mean free path length of the dye vapour molecules 2 points

- Is dependent on the number of possible collisions
- Is independent of the number of possible collisions
- Is dependent on the created vapour pressure
- Is dependent on the molecular size of the dye

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*Is dependent on the number of possible collisions*  
*Is dependent on the created vapour pressure*  
*Is dependent on the molecular size of the dye*

10) If the diameter of the gas molecule is doubled, the inverse of the percent change in the mean free path length, accurate to three decimal places, would be.....

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
*(Type: Range) -0.014 , -0.013*

2 points