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INDIAN INSTITUTE OF HANDLOOM TECHNOLOGY

Varanasi

Post Diploma in Textile Processing

APR/MAY-2025 SEMESTER EXAMINATION

(Regulation-2021)

Semester : II Time:3 Hours
Course Code & Title : **PDTP201 Textile Testing & Quality** Maximum Marks: 100
Control

PART-A

(10×2=20 Marks)

Answer all the questions within two to three sentences

1. Mention the standard textile testing laboratory atmospheric conditions.
2. What are the objectives of textile testing?
3. What are the count systems tested by using Beesley's balance?
4. Give the importance of yarn evenness.
5. Draw the symbolic representation of two types of yarn twist.
6. Expand the term CRE and CRL.
7. Which type of fabric, the bursting strength is applicable?
8. What are the probable causes of pilling on the fabric surface?
9. Define the term bending length.
10. What is the importance of TQM?

PART-B

((6+10) ×5=80 Marks)

Answer all the questions in detail

11. A. Write the importance of standard testing atmosphere while testing of textile materials. (6)
B. Explain the working of any one instrument used for relative humidity measurement with neat sketch. (10)
- (OR)
- C. Explain random sampling and biased sampling. (6)
D. Define the term moisture regain, and explain conditioning oven method for moisture regain determination of textile material. (10)
12. A. Explain Beesley's balance with neat sketch. (6)
B. Explain cutting and weighing method for measurement of yarn evenness. (10)

(OR)

- C. Explain briefly the causes of yarn unevenness. (6)
- D. Explain the working of quadrant balance with the help of neat sketch. (10)

- 13. A. Discuss the effects of twist on fabric properties. (6)
- B. Explain the working principle of lea strength tester with neat sketch. (10)

(OR)

- C. Explain the mechanism of CRE and CRT principles of textile strength tester. (6)
- D. Explain the working of straightened fibre method of twist testing with neat sketch. (10)

- 14. A. Briefly discuss about tear strength of fabric. (6)
- B. Explain the abrasion resistance testing with suitable sketch. (10)

(OR)

- C. Define the RKM and CSP. (6)
- D. Explain the method of measurement of pilling resistance of a fabric by using ICI pilling box. (10)

- 15. A. Discuss the thickness measurement of a fabric. (6)
- B. Explain working of Shirley crease recovery tester with suitable diagram. (10)

(OR)

- C. Define terms, bending length and flexural rigidity. (6)
- D. Explain the working of drape meter with a neat sketch. (10)

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Post Diploma in Textile Processing

APR/MAY-2025 SEMESTER EXAMINATION

(Regulation-2021)

Semester : 02

Time:3 Hours

Course Code &Title : **PDTP202 : Soft skills & Personality
Development**

Maximum Marks:100

PART-A

(10×2=20 Marks)

Answer all the questions within two to three sentences

1. What are Soft Skills?
2. Define Etiquettes.
3. Why self discipline is important?
4. What is self esteem?
5. Define personality.
6. List out the types of communication flow.
7. What is meant by Management?
8. Define Leadership.
9. Write short note on mnemonic technique.
10. What is meant by Life-Long Learning and Management of Information?

PART-B

((6+10) ×5=80 Marks)

Answer all the questions in detail

11. A. Describe the importance of Professional skills. (6)
B. Elaborate the steps involved in career planning. (10)
(OR)
C. Discuss the stages of self-Actualization. (6)
D. Explain the factors influencing perception in detail. (10)
12. A. Explain the strategic implications of SWOT analysis. (6)
B. Elaborate the process of building self-confidence and significance of self-Discipline. (10)

(OR)

- C. How will you managing challenges by using constructive thinking techniques. (6)
- D. Explain the factors affecting attitude. (10)
13. A. What are the major Determinants of Personality? (6)
- B. Elucidate the theories of Motivation. (10)
- (OR)**
- C. Explain the elements involved in the Communication Process. (6)
- D. Describe the hurdles / barriers to effective communication. (10)
14. A. Enumerate the importance of Management. (6)
- B. Explain the qualities and skills of a good leader. (10)
- (OR)**
- C. What are the skills required to become a successful entrepreneur? (6)
- D. Elaborate the techniques and importance of Team Management. (10)
15. A. Discuss the role of critical thinking in the process of problem solving. (6)
- B. Explain the techniques to improve lateral thinking. (10)
- (OR)**
- C. Briefly explain the skills required for preparation and presentation of reports. (6)
- D. Discuss the causes of stress and explain the types of stress. (10)

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Post Diploma in Textile Processing

APR/MAY-2025 SEMESTER EXAMINATION

(Regulation-2021)

Semester : **II**

Time:3 Hours

Course Code &Title : **PDTP 203 Technology of Dyeing-II**

Maximum Marks:100

PART-A

(10×2=20 Marks)

Answer all the questions within two to three sentences

1. Write two examples of carrier.
2. What is Tg?
3. What is oligomer?
4. What is batching in HTHP beam dyeing machine?
5. Write the monomers used for producing Nylon 6,6
6. Classify metal complex dyes.
7. What is the function of retarders?
8. What is the function of levelling agents?
9. What are BWS in light fastness testing?
10. What is perspiration fastness?

PART-B

((6+10) ×5=80 Marks)

Answer all the questions in detail

11. A. What is the need of Heat setting? (6)
B. Write the structural parameters of polyester making it difficult to dye. (10)
(OR)
C. What are the factors while selecting carrier for polyester dyeing? (6)
D. Explain the carrier dyeing method of polyester with its advantages and disadvantages. (10)
12. A. Differentiate between the jet dyeing machine and soft overflow jet dyeing machine. (6)
B. Explain the thermosol method of dyeing polyester with neat diagram. (10)

(OR)

- C. Explain foaming problem and rope marks in jet dyeing machine. (6)
- D. Describe the parts and working of HTHP beam dyeing machine with neat diagram. (10)

13. A. What is barriness? (6)
- B. Explain the dyeing of nylon by acid dye with function of levelling agents. (10)

(OR)

- C. Differentiate levelling acid dye, milling acid dye and super milling acid dye. (6)
- D. Explain the method of dyeing acrylic by cationic dye with function of retarders. (10)

14. A. What are the objectives of blending? (6)
- B. Explain the working of garment dyeing machine with advantages of garment dyeing over fabric dyeing. (10)

(OR)

- C. Write the process sequence of P/C blends with process details. (6)
- D. Write the function of exhausting agents, wetting agents, acid liberating agents and dispersing agents. (10)

15. A. What is fastness? Write about grey scales. (6)
- B. Explain in detail the process of determining the rubbing fastness of dyed materials with neat diagram of rubbing fastness tester. (10)

(OR)

- C. What are all the common defects observed in dyeing? (6)
- D. Write in detail the process of determining the washing fastness of dyed materials. (10)

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APR/MAY-2025 SEMESTER EXAMINATION

(Regulation-2021)

Semester : **II**

Time:3 Hours

Course Code & Title : **PDTP204 Technology of Printing-I**

Maximum Marks: 100

PART-A

(10×2=20 Marks)

Answer all the questions within two to three sentences

- 1 Discuss the role of viscosity in terms of design consideration.
- 2 Write the advantages of the screen printing technique over stencil printing.
- 3 Write the name of chemicals used in screen preparation.
- 4 Write the chemical names (with formulas) of any two discharging agents.
- 5 How semi-automatic flatbed printing machine are different from the fully automatic?
- 6 What are the key differences between flat bed and rotary screen printing machines?
- 7 What are the key differences between the resist and discharge styles of printing?
- 8 What is the role of Resist Salt L in a printing paste?
- 9 Write the names of two natural mordants used in the preparation of fabric before printing with natural dyes.
- 10 How is the thickening of pigment printing paste different from that of printing paste containing dyes?

PART-B

((6+10) ×5=80 Marks)

Answer all the questions in detail

11. A. What are the key differences between the dyeing process and the printing process in the coloration of textile materials? (6)
 - B. Why do preparatory processes play a significant role in printing? Briefly explain the important preparatory processes along with their recipes and process parameters. (10)
 - (OR)
 - C. How is mechanized printing different from non-mechanized printing? Explain. (6)
 - D. Describe the role of design, color, layout, and repeat in printing, and explain how these characteristics are interrelated in achieving a perfect design. (10)
- 12 A. Explain the process of block preparation for printing in detail. (6)
 - B. Explain the process of screen preparation and the hand screen printing process in (10)

detail.

(OR)

- C. How do the shape, material used, and handling of the squeegee in the hand screen printing process affect the quality of the printed fabric? (6)
- D. Describe the block printing method, highlighting its unique features that contribute to its continued importance. (10)

- 13 A. Write a comparison between the screen printing process and the block printing process, highlighting their unique features and shortcomings. (6)
- B. Describe the construction, working, and principle of a multi-color fully automatic flatbed screen printing machine with a neat sketch. (10)

(OR)

- C. Write a comparison between the flatbed screen printing process and the rotary screen printing process based on various parameters. (6)
- D. Describe the construction, working, and principle of a six-color fully automatic rotary screen printing machine with a neat sketch. (10)

14. A. Discuss the role of a thickener in printing paste and its key characteristics required for this function. (6)
- B. Describe the various styles of printing in detail. (10)

(OR)

- C. Discuss the role of hygroscopic agents, mild oxidizing agents, and reducing agents in printing paste. (6)
- D. Briefly explain the various after-treatments of printed goods and describe the working of the Rapid Ager machine with a neat sketch. (10)

- 15 A. Why have natural dyes gained importance in printing nowadays? State their advantages and disadvantages compared to synthetic dyes. (6)
- B. Describe the printing process of cotton fabric using reactive dye, including the functions of the chemicals used and the after-treatment process for color fixation. (10)

(OR)

- C. Briefly explain the pigment printing process with a suitable recipe for cotton fabric. (6)
- D. Describe the printing process of cotton fabric using direct dye, including the functions of the chemicals used and the after-treatment process for color fixation. (10)
