Registration Number | | | | | | | | |

INDIAN INSTITUTE OF HANDLOOM TECHNOLOGY

Varanasi

Post Diploma in Textile Processing

April/ May - 2026 Semester Examination

(Regulation-2025)

Semester : **II** Time:3 Hours

Course Code & Title : **25PDTP201 Technology of Dyeing-II** Maximum Marks: 100

PART-A (10×2=20 Marks)

Answer all the questions within two to three sentences

1. What is the role of carrier in polyester dyeing?
2. What are the objectives of heat setting of polyester?
3. In which form is the cloth dyed in an H.T.H.P. dyeing machine?
4. What is the Thermosol method of dyeing polyester?
5. Which class of dyes is used for nylon?
6. Which class of dyes is used for acrylic?
7. What are the objectives of blending?
8. What are the functions of levelling agents and exhausting agents used in dyeing?
9. Explain the concept of fastness.
10. Explain the concept of the Grey Scale

PART-B **(**(6+10) ×5=80 Marks)

Answer all the questions in detail

11. A. Comparison between carrier dyeing and H.T.H.P dyeing of polyester. (6)

(OR)

B. Explain the principle and methods of heat setting of polyester and its effect on dyeing behaviour. (6)

C. Describe the H.T.H.P. dyeing of polyester, including the recipe and process conditions. (10)

(OR)

D. Explain the methods of heat setting of polyester and its effect on dyeing behaviour. (10)

12. A. Outline the common defects and damages observed during dyeing of polyester in an H.T.H.P. dyeing machine. (6)

(OR)

B. Outline the common defects and damages observed during dyeing of polyester in a jet dyeing machine. (6)

C. Explain in detail the working of soft overflow dyeing machines. (10)

(OR)

D. Explain in detail the construction and working of an H.T.H.P. beam dyeing machine. (10)

13. A. Discuss the factors affecting the dyeing behaviour of polyamide fibres (Nylon 6 and Nylon 66). (6)

(OR)

B. Discuss the factors affecting the dyeing behaviour of acrylic fibres. (6)

C. Explain in detail the dyeing of nylon with disperse dyes, including the role of temperature, pH, and functions of chemicals used. (10)

(OR)

D. Explain in detail the dyeing of nylon with acid and metal complex dyes, including the role of temperature, pH, and functions of chemicals used. (10)

14. A. Explain the process sequence of polyester/cotton (P/C) and polyester/viscose (P/V) blended textiles (6)

(OR)

B. Explain the process sequence of acrylic/wool and polyester/wool blended textiles (6)

C. Explain in detail notes on construction and working principle of garment dyeing machines. (10)

(OR)

D. Discuss of function of levelling agent, exhausting agent, acid liberating agent, dispersing agent, and Retarders. (10)

15. A. How do you determine the washing fastness of dyed materials? (6)

(OR)

B. Discuss the common dyeing faults in polyester and acrylic fibres. (6)

C. What are the common defects observed in dyeing and their remedies? (10)

(OR)

D. Write in detail about determination of rubbing fastness and perspiration fastness of dyed materials? (10)

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Semester : II Time:3 Hours

Course Code &Title : **25PDTP202 Technology of Printing – I** Maximum Marks:100

PART-A (10×2=20 Marks)

Answer all the questions within two to three sentences

1. What is the difference between dyeing and printing?
2. Define repeat in textile design.
3. List the purpose of a printing block.
4. What is the role of screens in screen printing?
5. Is flatbed screen printing machine is suitable for bulk production? Why?
6. State two advantages of rotary screen printing.
7. What are the basic ingredients of print paste?
8. Define discharge printing.
9. What is pigment printing?
10. State two limitations and advantages of natural dyes in printing.

PART-B **(**(6+10)×5=80 Marks)

Answer all the questions in detail

11. A. Explain the preparatory processes required before textile printing. (6)

(OR)

B. Discuss the elements of design in textile printing (6)

C. Explain in detail the classification of textile printing methods. (10)

(OR)

D. Describe the process sequence involved in textile printing. (10)

12. A. Explain the process of block making and working with blocks in printing. (6)

(OR)

B. Describe the equipment used in hand screen printing. (6)

C. Explain the preparation of printing screens in detail. (10)

(OR)

D. Discuss the advantages and limitations of hand block printing. (10)

13. A. Explain the working of semi-automatic flatbed screen printing machine. (6)

(OR)

B. Describe the making of rotary screens. (6)

C. Explain the working of rotary screen printing machine with advantages. (10)

(OR)

D. Compare flatbed and rotary screen printing machines with their merits and demerits. (10)

14. A. Explain the role of binders in pigment printing. (6)

(OR)

B. Write short notes on resist style of printing. (6)

C. Explain various styles of printing with suitable examples. (10)

(OR)

D. Discuss the importance of curing and steaming in textile printing. (10)

15. A. Explain direct style printing of cotton with reactive dyes. (6)

(OR)

B. Write short notes on advantages and disadvantages of pigment printing. (6)

C. Describe the process of printing cotton with direct dyes. (10)

(OR)

D. Explain the advantages of natural dyes over synthetic dyes in textile printing. (10)

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Semester : II Time:3 Hours

Course Code &Title : **25PDTP203 TEXTILE TESTING & QUALITY CONTROL** Maximum Marks:100

PART-A (10×2=20 Marks)

Answer all the questions within two to three sentences

1. What is meant by moisture regain?
2. Calculate Percentage of mean range (PMR) if the mean is 19.55 and the mean range is 7.2.
3. What is the yarn evenness?
4. Mention any three count testing methods.
5. Differentiate between the CRL and CRE.
6. How is yarn twist effect on yarn strength?
7. Define air permeability.
8. Define tear strength of Fabric.
9. What is meant by drape?
10. What are the fabric properties evaluated by Kawabata system?

PART-B **(**(6+10)×5=80 Marks)

Answer all the questions in detail

11. A. `A 40s count yarn is tested in samples of 4 bobbins. The standard error is 0.6 counts giving a warning limit of 1.2. How many bobbins must there be in the sample in order that the warning limit is percentage of the mean? (6)

(OR)

B. Write the relationship between the moisture regain and moisture content. (6)

C. Discuss in detail about the determination of moisture regain and moisture content using oven method with neat sketch. (10)

(OR)

D. Explain the humidity and its effect on textile testing material. (10)

12. A. Write the impact of yarn unevenness on fabric properties. (6)

(OR)

B. Write working principle of electronic capacitance method. (6)

C. Explain the construction and working principle of Knowle's balance with neat sketch. (10)

(OR)

D. Discuss the cutting and weighing method used for determining yarn evenness. (10)

13. A. Write short note on the Constant Rate of Loading (C.R.L.) principle used in yarn strength testing. (6)

(OR)

B. Give an account of effects of twist on yarn properties. (6)

C. Describe the principle of operation of Instron strength testing machine. (10)

(OR)

D. Explain the procedure for measuring yarn twist by the straightened fibre method. (10)

14. A. Compare the tensile strength and tear strength of fabrics (6)

(OR)

B. What are the factors affecting the tear strength? Explain. (6)

C. Explain the procedure for determining bursting strength of fabric with neat sketch. (10)

(OR)

D. Describe the procedure for measuring pilling tendency using the I.C.I. Pilling Test method with neat sketch. (10)

15. A. Compare the Kawabata system and FAST system for fabric evaluation. (6)

(OR)

B. Discuss the factors affecting the drape of fabrics. (6)

C. Explain the concept and applications of AQL in textile product inspection. (10)

(OR)

D. Discuss in detail about the procedure for measuring crease recovery of fabrics. (10)

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Semester : **II** Time:3 Hours

Course Code & Title : **25PDTP204 - PERSONALITY DEVELOPMENT & ENTREPRENEURSHIP** Max. Marks: 100

PART-A (10×2=20 Marks)

Answer all the questions within two to three sentences

1. Define SWOT analysis.
2. What is stress management?
3. Define Personality.
4. What are communication barriers?
5. Who is an Entrepreneur?
6. What is Business idea generation?
7. Define Competitor analysis.
8. Define Partnership.
9. What is Marketing?
10. What does MSME stand for?

PART-B **(**(6+10)×5=80 Marks)

Answer all the questions in detail

11. A. Describe the types of Attitudes. (6)

(OR)

B. Define Motivation and explain any two motivational theories. (6)

C. Explain the various stress management techniques used in personality development. (10)

(OR)

D. Discuss the various factors influencing Human behaviour and Attitudes. (10)

12. A. Explain the major determinants of personality with examples. (6)

(OR)

B. Explain Cross-culture communication in global textile trade. (6)

C. Discuss the different theories of personality in detail. (10)

(OR)

D. Explain the steps involved in preparing a good presentation. (10)

13. A. Briefly describe the Traits of an Entrepreneur. (6)

(OR)

B. Write about the financing methods available for start-ups in India. (6)

C. Describe the importance and future scope of textile Entrepreneurship. (10)

(OR)

D. Explain in detail the steps involved in Business idea Generation. (10)

14. A. Explain the components of Business plan. (6)

(OR)

B. Explain the steps involved in developing Business plan with suitable examples. (6)

C. Explain the different types of Business ownership. (10)

(OR)

D. Describe the legal formalities required to start a business with reference to registration, license, GST and compliance. (10)

15. A. What are the different sources of finance used in business? (6)

(OR)

B. Write short notes on the Government schemes for start-ups. (6)

C. Explain Digital marketing and Traditional marketing in detail with suitable examples. (10)

(OR)

D. Explain the various schemes available under MSME with examples. (10)

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