

Q.24 Find the warp cover factor, weft cover factor and fabric cover factor of a fabric having following parameters:

Warp: $36^s \times 28$ EPI

Weft: $30^s \times 32$ PPI

Q.25 Prove that $\log 11/5 + \log 14/3 \log 22/15 = \log 7$

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Roll No.

3rd Sem / Textile Design

Subject : Textile Mathematics

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 The value of $3! + 4!$ is

- | | |
|-------|---------|
| a) 7 | b) 12 |
| c) 30 | d) None |

Q.2 The value of $\log 10$ is

- | | |
|-------|---------|
| a) 0 | b) 1 |
| c) 10 | d) None |

Q.3 The number in a set of numbers that appears the most often

- | | |
|-----------|---------|
| a) Mean | b) Mode |
| c) Median | d) None |

Q.4 The perimeter of a square, whose one side is 10 cm, is

- | | |
|-------|---------|
| a) 20 | b) 30 |
| c) 40 | d) None |

Q.5 The area covered by both warp and weft yarn in a fabric is known as

- a) Fabric cover b) Warp cover
- c) Weft cover d) None

Q.6 The sum of first ten natural number is

- a) 35 b) 45
- c) 55 d) None

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Find the mode of the series 3, 4, 5, 4, 2, 4

Q.8 Evaluate $6! / 4!$

Q.9 The probability of each event lies between _____

Q.10 Calculate 40% of Rs 160

Q.11 Write the formula for area of triangle

Q.12 Value of $\log mn = \log m + \log n$. (True/False)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Define mode and find mode of the series

4, 5, 8, 12, 8, 5, 4, 3, 4

Q.14 Find the capacity of a conditioning chamber whose dimensions are 5m x 4m x 3m.

Q.15 Find the area of an equilateral triangle whose one side is 4cm.

Q.16 The weight of six lea in grams is as follows

22, 24, 22, 21, 22.5, 19.5

Calculate mean weight, median and mode of the series

Q.17 In the word “APPLE”, how many different arrangements can you make with its letters?

Q.18 If there are 10 students, how many ways can you select a committee of 4 students?

Q.19 If a ring frame machine produces 150 kg yarn in one hour, how much yarn will be produced by this machine in a shift of 8 hours?

Q.20 If $x:3 = 10 : 15$ find the value of x

Q.21 A pizza with a radius of 8 inches is cut into a sector with a central angle of 60 degrees. What is the area of this pizza slice?

Q.22 Differentiate between warp cover and weft cover factor.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 A committee of 3 persons is to be continued from a group of 4 men and 3 women. In how many ways can this be done? How many of these committees would consists of 1 man and 2 women?