

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

Warp: 36^s x 28 EPI

Weft: 30^s x 32 PPI

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

No. of Printed Pages : 4

Roll No.

222531

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

(40)

(4)

222531

(1)

222531

- 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. $(6 \times 1 = 6)$

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. $(8 \times 4 = 32)$

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. $(2 \times 8 = 16)$

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 consist of 1 man and 2 women?