

- Q.29 Find the cost of fencing of a rectangular park whose length is 150m and breadth is 75 m at the rate of Rs12 per meter.

Q.30 If area of square is  $81\text{cm}^2$  then find perimeter of square.

Q.31 Differentiate between warp cover and weft cover factor.

Q.32 Find the mean of the following data 12, 13, 11, 16, 19, 22, 23.

Q.33 If  $10\% \text{ of } x = 15\% \text{ of } y$ , then find  $x:y$ .

Q.34 Define short term and medium term variation with control chart.

Q.35 Explain cover factor of a fabric.

## **SECTION-D**

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36** Find the arithmetic mean for the following data

Marks obtained	5	10	15	20	25
No. of Students	4	3	2	1	5

- Q.37 Prove that  $\log \frac{21}{13} + \log \frac{20}{7} - \log \frac{5}{2} = \log \frac{24}{13}$

- Q.38 A plain Fabric has following parameters

## Warp:26's X28 EPI

Weft : 24's X 30 PPI

Calculate total cover factor of the fabric.

No. of Printed Pages : 4  
Roll No. ....

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3rd Sem / Textile Design  
Subject:- Textile Mathematics

Time : 3Hrs.

M.M. : 100

## **SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 The area of square is  
a)  $4 \times$  side                          b) side  $\times$  side  
c)  $2 \times$  side                              d) none of these

Q.2 Value of  $4!$  is  
a) 0                                        b) 10  
c) 20                                      d) 24

Q.3 Circumference of circle is  
a)  $\pi r$                                     b)  $\pi r^2$   
c)  $2\pi r$                                     d) none of these

Q.4 Mean of the series  
2,4,6,8 is  
a) 4                                        b) 5  
c) 6                                        d) 8

Q.5 Value of  $\log_{10}$  is  
a) 0                                        b) 1  
c) 10                                      d) none of these

(40)

(4)

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(1)

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## **SECTION-B**

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Evaluate  $\log_3 9$ .

Q.12 Find the mean of the first five positive integers.

Q.13 Evaluate  $5! - 2!$ .

Q.14 Define median.

Q.15 Value of " $C$ " is.

- Q.16 Write the formula to determine the surface area of cylinder.

Q.17 If a ring bobbin has 3cm radius, find its circumference.

Q.18 A mixing of cotton is made of two types of cotton A and B. The ratio of A and B is 2:3. If total mixing is 120kg. Find the weight of each type of cotton.

Q.19 If a fabric is having EPI 30 and warp count is 25'Ne. Calculate the warp cover factor of this fabric.

Q.20 Divide Rs 900 in Amit and Sumit in the ratio 3:2.

## **SECTION-C**

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Find the value of the x if  $\log(x+5) + \log 3 = \log 27$ .

Q.22 Find the volume of the cylinder whose radius is 5cm and height is 20cm.

Q.23 If 35% of x is 500 then find the value of x.

Q.24 Find the area of trapezium if its parallel sides are 6m and 8m and height is 15cm.

Q.25 Find the area of a sector of the circle with radius 5cm and angle of the sector is 45 degree.

Q.26 Find mean proportion of 4 and 9.

Q.27 If cost of 9 books is Rs 72, then find the cost of 5 books.

Q.28 Find the diagonal of a rectangle whose length is 25cm and breadth is 10cm.