No. of Printed Pages : 4 222531

Roll No. .....

3rd Sem / Branch : Textile Design

Sub.: Textile Mathematics

Time : 3Hrs. M.M. : 60

SECTION-A

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

Q.1 Value of 3! is

a) 4 b) 3

c) 6 d) None

Q.2 The value of $\log_6 6$ is

a) 1 b) 6

c) 36 d) None

Q.3 Arithmetic mean of 2, 3, 4, is

a) 2 b) 3

c) 9 d) None

Q.4 If one side of a square is 3 cm, its area will be

a) 6 b) 9

c) 12 d) None

Q.5 The value of $^4p_3$ is

a) 4 b) 12

c) 24 d) None

Q.25 A plain fabric has following parameters:

Warp : 30^s x 26 EPI

Weft : 40^s x 32 PPI

Calculate total cover factor of the fabric.

Q.6 The value of log1 is

a) 0 b) 1

c) 10 d) None

SECTION-B

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

Q.7 Evaluate $\log_3 9$.

Q.8 Write formula to determine the surface area of cylinder.

Q.9 A mixing of cotton is made of two types of cotton A & B. The ratio of A & B is 2:3. If total mixing is 120 kg. Find the weight of each type of cotton.

Q.10 The spinning section of a textile mill is in rectangular form, whose sides are 90 meter and 70 meter. Find the area of the spinning section.

Q.11 If a fabric is having EPI 30 and warp count is 25^s Ne, Calculate the warp cover factor of this fabric.

Q.12 If a ring bobbin has 5cm radius, find its circumference.

SECTION-C

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

Q.13 Find mean proportion of 4 and 9.

Q.14 In how many ways the letter in a word TAN can be arranged?

Q.15 Discuss the use of control charts in brief.

Q.16 Differentiate between warp cover and weft cover factor.

Q.17 Find the area of a parallelogram whose base is 10 meters and the height is 6 meters?

Q.18 Find fourth proportional of 6, 10 and 18.

Q.19 Find area of trapezium if its parallel sides are 8m and 4m and height is 3m.

Q.20 Find diagonal of a rectangle whose length is 35cm and breadth is 12cm.

Q.21 If 15% of x = 20% of Y find x : y.

Q.22 Find the median from the following data

4, 20, 11, 25, 22, 18, 10, 8, 15

SECTION-D

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

Q.23 Define periodic variation in textiles. How will you classify it. Explain how this classification helps us to detect the machine which cause the variation.

Q.24 Find arithmetic mean for the following data

Marks obtained	12	15	18	21	25
No. Of Students	5	7	3	2	4