BOARD DIPLOMA EXAMINATION, (C-20)

OCTOBER / NOVEMBER—2023

DTT - THIRD SEMESTER EXAMINATION

TEXTILE TESTING AND QUALITY CONTROL—I

Time : 3 Hours] [*Total Marks* : 80

PART—A

3×10=30

Instructions : (1) Answer **all** questions.

(2) Each question carries **three** marks.

(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Mention the objectives of standardization of testing.

2. Define the terms *(a)* Random sample and *(b)* Biased sample.

3. List the different methods of estimating neps.

4. State the importance of fiber maturity.

5. List the three causes of unevenness.

6. Define the term index of irregularity.

7. Define the term initial Young's modulus.

8. Define the term statistics.

9. Calculate median and mode from the following :

    20, 25, 26, 24, 27, 20, 24, 30

10. Write the formula to find coefficient of standard deviation.

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8×5=40

Instructions : (1) Answer **all** questions.

(2) Each question carries **eight** marks.

(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. *(a)* Explain the effect of moisture on fiber properties.

(OR)

(b) Explain the different fabric sampling methods.

12. *(a)* Explain the Gravimetric method of measuring fiber fineness.

(OR)

(b) Explain the measurement of fiber length parameters by using digital fibrograph.

13. *(a)* Explain the principle of measurement of yarn appearance by electronic instrument.

(OR)

(b) Explain the principle of Uster evenness tester.

14. *(a)* Explain the fiber strength testing by using pressly fiber bundle strength tester.

(OR)

(b) Explain the measurement of yarn strength by using lea strength tester (lea CSP).

15. *(a)* Calculate the arithmetic mean for the following table :

Marks	5	10	12	15	18	20	25
No. of Students	10	18	20	25	30	28	19

(OR)

(b) Calculate the mode for the following table :

Profit/shop (in ₹)	0-10	10-20	20-30	30-40	40-50	50-60
No. of Students	110	170	20	45	40	35

PART—C
10×1=10

Instructions : (1) Answer the following question.

(2) The question carries **ten** marks.

(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

16. Find the standard deviation of the following distribution :

Profit/shop (in ₹)	1	2	3	4	5	6
No. of Shops	4	7	15	18	16	12

What do you infer with results? Discuss the applications of standard deviation.

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