

**SYLHET CADET COLLEGE**

PRE-TEST EXAMINATION - 2023

CLASS: XII

STATISTICS (CREATIVE)

SECOND PAPER

TIME – 2 hours & 35 minutes

FULL MARKS – 50

Set	D
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Subject Code:	1	2	9
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[**N.B.** – The figures of the right margin indicate full marks. Read the stems carefully and answer the associated questions. Answer any **FIVE** questions taking at least two from each group.]

**Group–A**

1. **A quality control analyst in an industry tracks the no. of defective items produced per day. He observes 150 successive days and then prepares a table.**

No. of items	0	1	2	3	4
Frequency	30	32	40	28	20

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|---|---|
| (a) What is the formula of classical probability?   | 1 |
| (b) Explain the difference between Priori Approach and Empirical Approach of probability.           | 2 |
| (c) What is the probability that less than 2 defective items would be produced on a particular day? | 3 |
| (d) Explain the relationship between independency and mutual excluvity in the light of the stem.    | 4 |

**Group–B**

*“It is a capital mistake to theorize before one has data.”* – Sir Arthur Conan Doyle