

No. of Printed Pages : 5

BEY-014

**BACHELOR OF SCIENCE (APPLIED
SCIENCE-ENERGY)**

(BSCAEY)

Term-End Examination

June, 2026

BEY-014 : STATISTICAL METHODS

Time : 3 Hours

Maximum Marks : 70

Note : (i) Attempt any **seven** questions.

(ii) All questions carry equal marks.

(iii) Use of scientific calculator is permitted

(iv) Assume missing data, if any.

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1. Explain the different types of measurement scales used. 10
 2. Explain the different natures of inquiry. 10
 3. What are the limitations of secondary data ? 10

4. The ages of the 112 people who live on a tropical islands are grouped as follows : 10

Age	Number
0 – 9	20
10 – 19	21
20 – 29	23
30 – 39	16
40 – 49	11
50 – 59	10
60 – 69	7
70 – 79	3
80 – 89	1

Estimate the mean, median and mode of the given data.

5. The marks obtained by students in a statistics test is given below : 10

45, 32, 55, 48, 62, 75, 38, 41, 56, 65, 79, 85,
50, 49, 71, 52, 68, 59, 43, 60, 66, 72, 58, 47,
39, 53, 64, 76, 80, 34

Construct a histogram for the above data using class interval of width 10.

6. The earning of five nationalised banks, in crores of rupees, is given below : 10
217.40, 330.50, 682.55, 1263.59, 2249.63
Find the arithmetic mean, and geometric mean.
7. The following data shows the daily profits (in Rs.) made by a shopkeeper on 15 successive days : 10
116, 87, 91, 81, 98, 102, 97, 100, 105, 101, 115, 98, 102, 98, 93
Determine the range, the mean deviation about mean and the standard deviation for the data.
8. The following table gives the distribution of age of lady teachers of a school as revealed by records. 10

Age Group (Years)	No. of Lady Teachers
15 – 19	3
20 – 24	13
25 – 29	21
30 – 34	15
35 – 39	5
40 – 44	4
45 – 49	2

Calculate the coefficient of variation and the number of teachers between age 26 and 33 years.

9. The following figures relate to the size of capital of 285 companies : 10

Capital (in Rs. Lacs)	No. of Companies
1 – 5	20
6 – 10	27
11 – 15	29
16 – 20	38
21 – 25	48
26 – 30	53
31 – 35	70

10. Calculate the coefficient of correlation for the ages of husband and wife : 10

Age of Husband	Age of Wife
23	18
27	22

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BEY-014

28	23
29	24
30	25
31	26
33	28
35	29
36	30

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