

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION MO/2024)

CLASS: BCA
BRANCH: BCA

SEMESTER : III
SESSION : MO/2024

SUBJECT: CN209 STATISTICS WITH R

TIME: 02 Hours

FULL MARKS: 25

INSTRUCTIONS:

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates

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|--------|--|-------|-----|
| Q.1(a) | Define Statistics. How do you think the knowledge of statistics is essential in management decisions? | [2] 1 | 1 |
| Q.1(b) | Explain Briefly the various methods that are used for graphical representation of frequency distributions. | [3] 3 | 2 |
| Q.2(a) | Define secondary data with suitable example. | [2] 1 | 1 |
| Q.2(b) | Explain the various classification of data. | [3] 1 | 2 |
| Q.3(a) | Explain the characteristics of good average. | [2] 1 | 1 |
| Q.3(b) | If the median of the following frequency distribution is 32.5, find the values of f_1 and f_2 . | [3] 2 | 3,4 |

Class interval	0-10	10-20	20-30	30-40	40-50	50-60	60-70	Total
Frequency	f_1	5	9	12	f_2	3	2	40

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|--------|--|-------|-----|
| Q.4(a) | Describe the various relationship among mean, median and mode. | [2] 3 | 2 |
| Q.4(b) | The profit earned by 100 companies during 2022-2023 are given below. | [3] 2 | 3,4 |

Profits (in lakh)	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
No. of Companies	4	8	18	30	15	10	8	7

Calculate D_3 and P_{80} .

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|--------|--|-------|-----|
| Q.5(a) | Define measures of dispersion. Point out the four-basic significance of measuring dispersion. | [2] 3 | 1 |
| Q.5(b) | The following data describe the age at which employee reach to the level of senior manager in multinational company: | [3] 4 | 3,4 |

Age in Years	Below 35	35-40	40-45	45-50	Above 50
No. of person reaching the level	14	60	95	24	7

Find the Coefficient of quartile deviation.

:25/09/2024::E