## PRESIDENCY UNIVERSITY BENGALURU

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## SCHOOL OF LAW <br> MID TERM EXAMINATION - OCT 2023

Semester: Semester III-2023
Course Code : BBL2003
Course Name : Sem III - BBL2003 - Business Statistics
Program : BBL

Date : 30-OCT-2023
Time : 11:30AM-1:00PM
Max Marks : 50
Weightage : 25\%

## Instructions:

(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.
(iv) Do not write any information on the question paper other than Roll Number.

## ANSWER ALL THE QUESTIONS

1. The following data relate to the monthly expenditure (in₹) of two families $A \& B$. Represent the above data with percentage bar diagram.

| Items of expenditure | Family A | Family B |
| :--- | :--- | :--- |
| Food | 16000 | 12000 |
| Clothing | 8000 | 6000 |
| Rent | 6000 | 5000 |
| Light \& Fuel | 2000 | 1000 |
| Miscellaneous | 8000 | 6000 |

(CO1) [Comprehension]
2. In 1990, out of a total of 2,000 students in a college 1,400 were for Graduation and the rest for PostGraduation (P.G.). Out of 1,400 Graduate students 100 were girls. However, in all there were 600 girls in the college. In 1995, number of graduate students increased to 1,700 , out of which 250 were girls, but the number of P.G. students fell to 500 of which only 50 were boys. In 2000, out of 800 girls, 650 were for Graduation, whereas the total number of graduates was 2,200 . The number of boys and girls in P.G. classes was equal. Represent the above information in tabular form. Also calculate the percentage increase in the number of graduate students in 2000 as compared to 1990.
(CO1) [Comprehension]
3. Present the following information in a suitable tabular form, supplying the figures not directly given :
In 2015 out of a total 2020 workers in a factory, 1550 were members of a trade union. The number of women workers employed was 250, out of which 200 did not belong to any trade union.
In 2000, the number of union workers was 1725 of which 1600 were men. The number of non-union workers was 380 , among which 155 were women.
(CO1) [Comprehension]
4. Calculate the Arithmetic Mean using the short-cut method from the following data.

| Marks | No. of <br> students |
| :--- | :--- |
| 0.10 | 5 |
| $10-20$ | 10 |
| $20-30$ | 25 |
| $30-40$ | 30 |
| $40-50$ | 20 |
| $50-60$ | 10 |

5. Determine the Median and Mode from the following data.

| Size | Frequency |
| :--- | :--- |
| $10-20$ | 11 |
| $20-30$ | 19 |
| $30-40$ | 21 |
| $40-50$ | 16 |
| $50-60$ | 10 |
| $60-70$ | 8 |
| $70-80$ | 6 |
| $80-90$ | 3 |
| $90-100$ | 1 |

