## BACHELOR'S DEGREE PROGRAMME (BDP)



Time : 2 hours
Maximum Marks : 50
Note: (i) All sections are compulsory.
(ii) Use of Simple Calculator be pernitted.

## SECTION - A

Answer any two of the following questions in about 450 words each :
$2 \times 10=20$

1. Explain measures of central tendency with a focus $\mathbf{6 + 4}$ on its functions. Elucidate the characteristics of a good measures of central tendency.
2. Elucidate the fundamental concepts in $\mathbf{1 0}$ determining the significance of the difference between means.
3. Compute Spearman's rank order coefficient of 10 correlation for the following data :

|  | A | B | C | D | E | F | G |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Data 1 | 20 | 25 | 22 | 21 | 29 | 28 | 34 |
| Data 2 | 45 | 40 | 39 | 37 | 30 | 32 | 34 |

4. With the help of ' $t$ ' test find if significant difference exists in early and late adolescents with regard to emotional intelligence.

| Emotional Intelligence Scores |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Early adolescents | 10 | 5 | 16 | 14 | 5 | 10 |
| Late adolescents | 9 | 1 | 8 | 7 | 10 | 1 |

Critical value :
For 0.01 level of significance $=3.17$
For 0.05 level of significance $=2.23$

## SECTION - B

Answer any four of the following questions in about 250 words each :

$$
4 \times 6=24
$$

5. Describe the concept of inferential statistics. $\mathbf{3 + 3}$ Elucidate the general procedure for testing a hypothesis.
6. Tabulate cumulative frequency distribution for the following data with class interval of 5 : $10,12,13,15,10,9,8,7,3,2,4,1,8,7,3,2,4,1$, $8,7,7,6,5,4,7,8,10,9,8,5,6,11,12,13,14,15$.
7. Compute mean for the following grouped data :

| Class interval | Frequency |
| :---: | :---: |
| $45-49$ | 7 |
| $40-44$ | 10 |
| $35-39$ | 7 |
| $30-34$ | 8 |
| $25-29$ | 8 |
| $20-24$ | 9 |
| $15-19$ | 1 |
| $10-14$ | 3 |
| $5-9$ | 2 |
| $1-4$ | 5 |

8. Explain average deviation. Compute standard ..... $3+3$deviation for the following data :
$25,15,10,20,10,25,12,13,11,9$.
9. Define Probability. Discuss application of the ..... $2+4$ normal curve.
SECTION - C
Write short notes on any two of the following in about 100 words each : ..... $2 \times 3=6$
10. Pie diagram ..... 3
11. Linear relationship ..... 3
12. Parametric statistics ..... 3
