# 2013

## EDUCATION

( Major )

Paper : 5.5

*Full Marks* : 60

*Time* : 3 hours

*The figures in the margin indicate full marks for the questions*

1. Answer/Fill in the blanks of the following : 1×7=7

(a) Define Statistics.

(b) Arithmetic mean is ——.

(c) The data can be presented in a more attractive way through ——.

(d) Define Range.

(e) What is continuous data?

(f) The literal meaning of the term normal is ——.

(g) Define Mode.

**2.** Answer the following : 2×4=

(a) Round off the following numbers to decimal places :

(i) 52.726

(ii) 23.558

(b) Find the average IQ of the following eight students whose individual scores are

80, 100, 60, 75, 125, 150, 95, 75

(c) Point out the situation when to use—

(i) quartile deviation;

(ii) average deviation.

(d) Define linear correlation with its type.

**3.** Answer any *three* of the following : 5×3=1

(a) What is coefficient of correlation? Discuss with the types of correlation.

(b) What are different types of variability? Discuss.

(c) Discuss the characteristics of a normal probability curve.

(d) What are the differences between grouped and ungrouped data?

(e) Define skewness by representing it through diagram.

4. Answer any *three* of the following : 10×3=30

(a) Calculate the mean from the following data :

| *Scores* | *f* |
|---|---|
| 70–71 | 2 |
| 68–69 | 2 |
| 66–67 | 3 |
| 64–65 | 4 |
| 62–63 | 6 |
| 60–61 | 7 |
| 58–59 | 5 |
| 56–57 | 4 |
| 54–55 | 3 |
| 52–53 | 3 |
| 50–51 | 1 |
| | $N = 40$ |

(b) Find the product moment correlation from the following data :

| *Individuals* | : | *A* | *B* | *C* | *D* | *E* | *F* |
|---|---|---|---|---|---|---|---|
| *Marks in English* | : | 30 | 40 | 20 | 50 | 10 | 45 |
| *Marks in Assamese* | : | 55 | 75 | 12 | 11 | 25 | 15 |

(c) Plot histogram from the following data :

| *Scores* | *f* |
|---|---|
| 75–79 | 1 |
| 70–74 | 3 |
| 65–69 | 5 |
| 60–64 | 8 |
| 55–59 | 11 |
| 50–54 | 18 |
| 45–49 | 10 |
| 40–44 | 8 |
| 35–39 | 6 |
| 30–34 | 5 |
| | $N = 75$ |

(d) Compute the average deviation from the following distribution :

| *Scores* | *f* |
|---|---|
| 110–114 | 4 |
| 105–109 | 4 |
| 100–104 | 3 |
| 95–99 | 0 |
| 90–94 | 3 |
| 85–89 | 3 |
| 80-84 | 1 |
| | $N = 18$ |

(e) Compute the values of the following from the data given below :

(i) $P_{30}$

(ii) $P_{90}$

| *Scores* | *f* |
|---|---|
| 27–29 | 1 |
| 24–26 | 3 |
| 21–23 | 6 |
| 18–20 | 10 |
| 15–17 | 9 |
| 12–14 | 11 |
| 9–11 | 10 |
| 6–8 | 3 |
| 3–5 | 3 |
| 0–2 | 1 |
| | $N = 57$ |

(f) Compute quartile deviation from the data given below :

| *Scores* | *f* |
|---|---|
| 70–79 | 3 |
| 60–69 | 2 |
| 50–59 | 2 |
| 40–49 | 3 |
| 30–39 | 5 |
| 20–29 | 4 |
| 10–19 | 3 |
| 0–9 | 2 |
| | $N = 24$ |

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