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**BP—15—2016**

**FACULTY OF COMPUTER STUDIES**  
**B.Sc. (SE) (First Semester) EXAMINATION**  
**NOVEMBER/DECEMBER, 2016**  
**(Old Course)**  
**SOFTWARE ENGINEERING**  
Paper S1.4  
(Statistical Methods)

**(Tuesday, 22-11-2016)**

**Time : 10.00 a.m. to 1.00 p.m.**

*Time— Three Hours*

*Maximum Marks—80*

*N.B. :—* (i) All questions are compulsory.

(ii) Attempt either (A) or (B) from Questions Nos. 2 to 4.

(iii) Figures to the right indicate full marks.

(iv) Use of non-programmable calculator is allowed.

(v) Use suitable data, if necessary.

1. Attempt the following : 20

(a) Define Statistics.

(b) Define mean. Write its merits and demerits.

(c) Explain correlation.

(d) Explain probability.

2. (A) Attempt the following :

(a) Explain simple bar and subdivided bar diagram with example. 8

(b) Write general principles of classification of data. 7

*Or*

(B) Attempt the following :

(a) Calculate mode from the following data : 8

Class	Frequency
0—10	30
10—20	70
20—30	100
30—40	70
40—50	40

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(b) Write importance of statistics. 7

3. (A) Attempt the following :

(a) Calculate variance from the following data : 8

Class	Frequency
60—62	35
62—64	27
64—66	20
66—68	13
68—70	5

(b) Explain frequency curve with suitable example. 7

Or

(B) Attempt the following :

(a) Explain probability with axioms. 8

(b) A card is drawn at random from a well shuffled pack. Find the probability that it is : 7

(i) a red card

(ii) a face card.

4. (A) Attempt the following :

(a) Prove that : 8

$$P(A \cup B) = P(A) + P(B) - P(A \cap B).$$

(b) Explain pie diagram with a suitable example. 7

Or

(B) Attempt the following :

(a) Calculate coefficient of correlation from the following data : 8

$x$	$y$
10	9
6	4

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9	6
10	9
12	11
13	13
11	8
9	4

(b) Define time series. Explain its components. 7

5. Write short notes on (any *three*) : 15

- (a) Median
- (b) Sample Space
- (c) Variance
- (d) Least Square Method
- (e) Scatter Diagram.

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