

B.A.S.L.P. SEM – I (2017 COURSE) : WINTER - 2017

SUBJECT : RESEARCH METHODS & STATISTICS

Day : **Friday**
Date : **08/12/2017**

Time : **10.00 AM TO 01.00 PM**
Max. Marks : 75

W-2017-3452

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagrams **WHEREVER** necessary.
- 4) Answers to both the sections should be written in the **SEPARATE** answer books.

SECTION – A

- Q.1** Write short notes on **ANY THREE** out of **FOUR** of the following: **[15]**
- a) Variables
 - b) Ex-post-facto research
 - c) Field study
 - d) Statement of problem

- Q.2** Attempt **ANY ONE** out of **TWO** of the following: **[10]**
- a) Explain different types of Data Collection Methods.
 - b) Define variables. Describe types of variables.

- Q.3** Attempt **ANY ONE** out of **TWO** of the following: **[15]**
- a) Define sampling. Explain random and no-random sampling.
 - b) What is research? State it's important of research in audiology and speech.

SECTION – B

- Q.4** Attempt **ANY TWO** out of **THREE** of the following: **[10]**
- a) Write short note on paired and unpaired t-test.
 - b) Calculate 'combined mean' and 'combined standard deviation' using the data given below.

	Mean	SD	Size
Group – I	70	10	50
Group – II	55	15	100

- c) Define Skewness and Kurtosis. Also write properties of Normal Distribution.

P.T.O.

Q.5 Attempt **ANY ONE** out of **TWO** of the following: **[10]**

- a) i) Explain the term 'correlation' between the two random variables.
- ii) Define the terms:
a) Event b) Probability c) Class-interval d) Impossible event
- b) i) Explain any one non-parametric test.
- ii) Given, $\bar{x} = 45$, (s.d. of X) $\sigma_x = 16$
Calculate the coefficient of variation of X. state the significance of coefficient of variation.

Q.6 Attempt **ANY ONE** out of **TWO** of the following: **[15]**

- a) i) Explain one-way analysis of variance.
- ii) Explain chi-square test of independence.
- b) Using the frequency distribution of marks obtained by students. Calculate mean and modal mark.

Marks	No. of students
0 – 10	5
10 – 20	7
20 – 30	13
30 – 40	25
40 – 50	20
50 – 60	10

Also obtain mode graphically. Also find quartiles Q_1 and Q_3

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