

AS-757

M.B.A. Semester-II Examination
RESEARCH METHODOLOGY
Paper- MBA/202

Time : Three Hours]

[Maximum Marks : 70

- Note :— (1) Attempt **ALL** questions.
(2) Figures to the right indicate marks.
(3) Use of calculators/scientific calculators permitted.

SECTION—A

1. (a) What is research problem ? How is research problem framed ? Give suitable example to elucidate your points. 14

OR

- (b) Explain value and cost of information. Illustrate with an example how you will analyse value of information and cost of information while going for a certain research project. 14

SECTION—B

2. (a) Give explanation of the following in context of research design :
(i) Dependent and Independent variable 7
(ii) Extraneous variable. 7
(b) You as a banker are interested in conducting a study to explore investment pattern of businessmen having small business enterprises in your city. What type of research design is appropriate ? Justify. Develop research purpose. 7

OR

- (c) Explain steps involved in research process. 7
(d) Tata Motors introduced a small car Zica. As a district manager, company assigned the responsibility to conduct research to estimate the sales potential in your territory. How would you proceed ? 7

3. (a) Explain merits and demerits of collection of data through questionnaire. 7
(b) Revenue generation for three products A, B, C is broken down to show product revenue in each of four territories :

Territory	1	:	25	25	45
Territory	2	:	40	35	10
Territory	3	:	20	15	25
Territory	4	:	20	35	20

How can the data be set up for analysis ? What percentages can then be calculated and how they can be used ? 7

OR

- (c) Explain importance of 'Interview' as a method of primary data collection. 7
(d) Health department in city wishes to assess awareness about various vaccines to be given to children below 10 years. If focus groups are to be used for the proposed study then ;
(i) How many individuals should there be in each group ? Justify.
(ii) What type of individuals should be in each group ? Justify. 7
4. (a) What steps are included in developing a sample design ? 7
(b) The numbers given below show the score of 25 students in Mathematics. Explain how will you select 5 representative student scores by using any two methods of selection in random sampling. Justify.

Student Roll No.	Student Score in mathematics
1	295
2	317
3	720
4	340
5	059
6	665
7	500
8	635
9	286
10	624

Student Roll No.	Student Score in mathematics
11	400
12	450
13	150
14	350
15	222
16	940
17	930
18	274
19	615
20	905
21	664
22	560
23	540
24	376
25	058

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OR

- (c) State different types of sample designs. Explain stratified sampling with suitable example.

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- (d) A population is divided into three strata to check consumer preferences towards branded hair saloons.

$$A_1 = 5000 ; A_2 = 2000 ; A_3 = 3000$$

Respective standard deviations are ;

$$\sigma_1 = 15 ; \sigma_2 = 18 ; \sigma_3 = 5$$

How should a sample of size $n = 84$ be allocated to the three strata, If we want optimum allocation using disproportionate sample design ? Justify your answer.

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SECTION—D

5. (a) The following data shows number of units of an item sold at particular store at different prices during the last 10 months.

Month	Price per units in Rs.	Number of Units sold
1	180	500
2	220	450
3	200	480
4	190	550
5	170	600
6	230	460
7	240	440
8	220	420
9	200	540
10	180	560

Find regression equation based on above data.

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- (b) Can you estimate the approximate number of units to be sold when price per unit is set at Rs. 150 per unit ?

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