## MA DISASTER MANAGEMENT

### Third Semester
### Research Methodology and Project Formulation
### (MDM-11)

**Duration: 3Hrs.**

**Full Marks: 70**

Part-A (Objective) =20
Part-B (Descriptive)=50

## (PART-B: Descriptive)

**Duration: 2 hrs. 40 mins.**

**Marks: 50**

### 1. Answer *any five* from the following:

**2×5=10**

*a)* Define Coding of data.
*b)* Write two differences between quantitative and qualitative data.
*c)* What do you understand by measures of central tendency?
*d)* What is sample?
*e)* What is sampling frame?
*f)* Define Null hypothesis.
*g)* Differentiate between qualitative and quantitative research.

### 2. Write short notes on *any five* from the following:

**3×5=15**

*a)* Compute Median for the following frequency distribution:

| Class Interval | Frequency (f) |
|---|---|
| 9.5- 14.5 | 3 |
| 14.5-19.5 | 6 |
| 19.5-24.5 | 8 |
| 24.5-29.5 | 11 |
| 29.5-34.5 | 8 |
| 34.5-39.5 | 4 |

*b)* Compute Variance and standard deviation from the following:
10, 10, 9, 9, 8, 8, 7, 7, 6, 6.

*c)* Why sampling is required in research?

*d)* What is questionnaire? What is its importance?

*e)* Differentiate between Multi stage and Multi phase sampling?

*f)* What is the significance of research?

*g)* Briefly enlist various steps in research process.

## 3. Answer *any five* from the following:                  5×5= 25

*a)* "Processing of data implies editing, coding, classification and tabulation". Describe in brief these four operations pointing out the significance of each in context of research study.

*b)* Calculate Spearman's correlation from following:

| Countries | Population Growth | Per capita GNP growth rate |
|---|---|---|
| Brazil | 3 | 1.6 |
| Nigeria | 2.4 | 0.3 |
| West Germany | 1 | 3.4 |
| UK | 0.7 | 0.2 |
| Italy | 1.1 | 3.7 |
| Mexico | 3.5 | 3.4 |
| Spain | 0.9 | 6.5 |
| UAE | 2.5 | 1.6 |
| Burma | 2.1 | 1.6 |
| Yugoslavia | 1.1 | 4.2 |
| Afghanistan | 2 | 0.3 |
| Algeria | 2.3 | 3.5 |
| Netherland | 1.3 | 3 |
| France | 1.1 | 3.7 |

c) The yields per acre of wheat for six plots entering a crop competition, there of the plots being sown with wheat variety A and three with B.

| Variety | Yields in fields per acre | | |
|---------|------|------|------|
| A | 30 | 32 | 22 |
| B | 20 | 18 | 16 |

Set up a table of Analysis of variance and calculate F. State whether the difference between the yields of two varieties is significant or not.

d) Discuss the types of questions on the basis of measuring response.

e) Discuss different types of Non Probability Sampling.

f) "A research scholar has to work as a judge and derive the truth and not as a pleader who is only eager to prove his case in favour of his plaintiff." Discuss the statement in pointing out the objectives of research.

g) Discuss the features of a good research design.

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## Third Semester

## Research Methodology and Project Formulation

## (MDM-11)

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

**Duration: 20 minutes**                                                                 **Marks – 20**

### PART A- Objective Type

Choose the correct answer from the following:                                       1×20=20

**1.** The most stable measure of central tendency is-
   a) Mean             b) Median          c) Mode                 d) None of these

**2.** The difference between the two extreme measures or values in a distribution is –
   a) Range            b) Variance        c) Standard Deviation       d) None of these

**3.** The value of correlation coefficient –
   a) Depends on the origin                      b) Depends on the unit of scale
   c) Depends on both origin and unit of scale     d) Independent with respect to origin and unit of scale

**4.** The value that occurs most frequently in a distribution is-
   a) Mean             b) Mode            c) Median               d) All of these

**5.** Chi-square test is applied for-
   a) Testing the goodness of fit                b) Finding the relation between attributes
   c) Testing the significance of mean of small scale     d) None of these

**6.** The statistical technique which can help us in enlarging the testing of the problem to include multiple sets of data for their statistical significance is known as –
   a) ANOVA           b) T-test              c) Chi-square test          d) Z-test

**7.** Parametric data should be used if the following basic assumptions are met-
   1. The observations are independent             2. The population value are normally distributed
   3. The sample have equal or near equal variances     4. The variable described are expressed in interval
Select correct answer from the code given below-
**Codes:**
   a) 1, 2 and 3          b) 2and 3 only          c) 1 and 4 only         d) All the above.

**8.** Padding questions are _____ type of questions
   a) Primary          b) Secondary         c) Tertiary          d) none of above

**9.** "A sample is part of the population which is studied in order to make inferences about the whole population". This definition of sample was given by –
   a) Sarantakos, 1998                   b) Singleton & Straits, 1999
   c) Manheim, 1977                     d) none of above

**10.** Multi phase sampling is a type of
    a) Random sampling
    c) Probability sampling
    b) Non probability sampling
    d) none of above

**11.** Snowball is a type of
    a) Randon sampling
    c) Non probability sampling
    b) Probability sampling
    d) none of above

**12.** "Who decides the nature of gift to be given in a marriage to family relative?" is a type of
    a) Tertiary question
    c) Secondary question
    b) Primary question
    d) none of above

**13.** The sample frame reduces the number of total population which is known as
    a) Base population
    c) Target population
    b) Sample population
    d) none of above

**14.** Numerical approach towards research is called –
    a) Quantitative research
    c) Empirical research
    b) Qualitative research
    d) None of these

**15.** Data collection cannot be done through –
    a) Interview
    c) Questionnaires
    b) Secondary data
    d) Reviewing literature

**16.** Data on 1500 students' height were collected at a large university. Which of the following is the best chart for presenting the information?
    a) A pie chart
    c) A side-by-side bar chart
    b) A Pareto diagram
    d) A histogram

**17.** You have collected information on the market share of five different search engines used by internet users in May 2008. Which of the following is the best for presenting the information?
    a) A pie chart
    c) A contingency table
    b) A histogram
    d) None of these

**18.** When a prediction is to be tested by scientific methods, it is termed as –
    a) Confounded relationship
    c) Extraneous variable
    b) Research hypothesis
    d) Experiment

**19.** Processing of data implies –
    a) Editing and tabulating
    c) Editing and classifying
    b) Coding and Classifying
    d) All of these

**20.** When $H_0$ is true and $H_a$ is false, the situation is referred to as –
    a) Type I error
    c) $\beta$ error
    b) Type II error
    d) None of these

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