

International Institute of Health Management Research Delhi

Term End Exam (Batch- 2021-23)

Data Management and Analysis

Total marks: 70

Duration: 3 hrs

Answer MCQs in question paper itself and attach with the answer sheet.

SECTION A

Multiple Choice Questions

(each carries 2 marks)

- Q1) Expected value for each cell in the contingency table needs to be one among following for chi-square test to be effective**
- (a) 3 (b) 6 (c) 10 (d) 5
- Q2) The measure of location which is the most likely to be influenced by extreme values in any data set is**
- (a) range (b) median (c) mode (d) mean
- Q3) Correlation coefficient is used for determining**
- (a) a specific value of the y-variable given a specific value of the x-variable
(b) a specific value of the x-variable given a specific value of the y-variable
(c) the strength of the relationship between the x and y variables
(d) none of these
- Q4) How is a variable name different from a variable label? It is**
- (a) shorter and less detailed (b) longer and more detailed
(c) abstract and unspecific (d) code rather than variables
- Q5) Which option in SPSS allows user to arithmetically combine or alter variables and place the resulting value under a new variable name**
- (a) transform (b) compute variable (c) recode (d) none of above
- Q6) Which among the following is used to display the frequency distribution of categorical data?**
- (a) scatter plot (b) steam and leaf plot (c) bar chart (d) none of the above
- Q7) If there is a very strong correlation between two variables then the correlation coefficient must be**
- (a) any value larger than 1
(b) much smaller than 0, if the correlation is negative
(c) much larger than 0, regardless of whether the correlation is negative or positive
(d) None of these
- Q8) In SPSS, Data Viewer is a spreadsheet into which**
- a) data can be entered (b) variables can be defined (c) results can be seen (d) none of them
- Q9) Data from excel file can be imported to SPSS** Yes/No
- Q10) Spaces while defining the variable name is allowed in SPSS?** Yes/No

Section B
(Short Questions)
Each carry 6 marks

- Q11) Explain any one model which describes relationship between data, information, and knowledge.
- Q12) Write about any two sources of health data
- Q13) Explain the importance of learning about data, its management and analysis from a managerial perspective.
- Q14) Differentiate between a nominal and ordinal variable by giving an example.
- Q15) Explain the importance of 'label' while defining the variables in SPSS.

Section C
(Long Questions)

Q16) Carefully look at the following outputs and interpret: (10 marks)

(a)

Statistics

Age of head of household

| | | |
|----------------|---------|--------|
| N | Valid | 636699 |
| | Missing | 0 |
| Mean | | 49.63 |
| Median | | 49.00 |
| Std. Deviation | | 14.113 |
| Range | | 86 |
| Minimum | | 12 |
| Maximum | | 98 |

(b)

Statistics

Sex of head of household

| | | |
|---------|---------|--------|
| N | Valid | 636699 |
| | Missing | 0 |
| Mode | | 1 |
| Range | | 2 |
| Minimum | | 1 |
| Maximum | | 3 |

1=Male; 2 = Female; 3 = Transgender

Q17) Interpret the following output (10 marks)

| Group Statistics | | | | | |
|------------------|------------------------------------|----|---------|----------------|-----------------|
| | Students_attended_remedial classes | N | Mean | Std. Deviation | Std. Error Mean |
| Exam_score | Yes | 46 | 17.7370 | 2.90435 | .42822 |
| | No | 46 | 14.6152 | 1.78848 | .26370 |

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|-------------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|--------------------------|---------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% CI of the Difference | |
| | | | | | | | | | Lower | Upper |
| Exam_scores | Equal variances assumed | 8.080 | .006 | 6.207 | 90 | .000 | 3.12174 | .50290 | 2.12263 | 4.12084 |
| | Equal variances not assumed | | | 6.207 | 74.838 | .000 | 3.12174 | .50290 | 2.11987 | 4.12361 |