International Institute of Health Management Research Delhi

Term-End Exam (Batch- 2017-19)

Data Management and Analysis

Total marks: 70 **Duration: 2.5hrs**

Answer 'Section A' in question paper itself and attach with the answer sheet. Otherwise, Section A will not be evaluated at all.

SECTION A: MCQs (10*2 = 20 marks)

Q1) What type of data is generally used to carry out a chi-square test?

a) Categorical (b) Ratio (c) Ordinal (d) All of these

Q2) Among following measure of central tendency, which one is derived from most common value?

(a) Mean (b) Median (c) Mode (d) None of these

Q3) Among following, which one could be a possible value of r^2 which indicates very strong linear relationship between two quantitative variables?

(a) 0% (b) 80% (c) 110% (d) None of these

Q4) If null hypothesis is rejected, does it mean that we have a conclusive proof that the alternative hypothesis is

(a) True (b) False (c) Neither True or False (d) None of these

Q5) Which among the following gives the most representative average value, if there are too many outliers in the data set

(a) Mean (b) Mode (c) Median (d) None of these

Q6) Among the following variables names, which one cannot be created in SPSS?

(a) @123 (b) @123-12 (c) @123_ab (d) ab@123

Q7) Which among the following statistics are important when interpreting an independent samples t-test?

(a) Descriptive statistics (b) T scores (c) Mean difference (d) All of these

Q8) What does a Pearson correlation test statistic of 0.312 with a significance level of P < 0.01 would suggest?

(a) strong positive relationship (b) strong negative relationship
(c) significant strong positive relationship (d) none of these

Q9) Which measure is the most unreliable indicator of central tendency if data are skewed? _____

Q10) Expand SPSS _____

SECTION B: SHORT QUESTIONS (5*5 = 25 marks)

Q11) Briefly explain the difference between an independent-samples t-test and a paired-samples t-test.

Q12) What are the multiple response variables? Explain their importance.

Q13) Differentiate between independent and dependent variable by giving an example.

Q14) Briefly mention about DBMS functions.

Q15) Explain the relationship between data, information and knowledge.

SECTION C: LONG QUESTIONS (25 marks)

Q16) Interpret following outputs

a) Output 1 **(10 marks)**

		Education level (years)	Current salary	Previous experience (in months)
Education level (years)	Pearson correlation	1.000	.661**	-.252**
	Sig. (2-tailed)	.	.000	.000
	N	474	474	474
Current Salary	Pearson correlation	.661**	1.000	-.097*
	Sig. (2-tailed)	.000	.	.034
	N	474	474	474
Previous Experience (in months)	Pearson correlation	-.252**	-.097*	1.000
	Sig. (2-tailed)	.000	.034	.
	N	474	474	474

**. Correlation is significant at the 0.01 level (2-tailed) *. Correlation is significant at the 0.05 level (2-tailed)

b) Output 2 **(15 marks)**

Variables Entered/Removed[b]

Mode	Variables Entered	Variable Removed	Method
1	Spendingonadvetisement[a]	.	Enter

a. All requested variables entered. b. Dependent variable: Sales

Model Summary

Mode	R	R Square	Adjusted R Square	Std. Error of Estimated
1	.916[a]	.839	.832	.73875

a. Predictors: (Constant), spending on advertisement

ANOVA[b]

Model	Sum of squares	df	Mean Square	F	Sig.
1	62.514	1	62.514	114.548	.000[a]
Regression	12.006	22	.546		
Residual	74.520	23			
Total					

a. Predictors: (Constant), spending on advertisement b. Dependent variable: Sales

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	6.584	.402		16.391	.000
spedningonadvertisement	1.071	.100	.916	10.703	.000

a. Dependent variable: Sales