

2022

COMMERCE

Paper : GE-404

(Business Research Methods)

Full Marks : 40

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

Module - I

Answer *any two* questions.

1. (a) Discuss briefly the objectives of business research.
(b) Highlight the important issues in case of drafting research proposal. 3+7
2. (a) Briefly explain the various types of research design.
(b) Narrate steps required for processing of data preparation. 6+4
3. (a) Briefly explain the concept of 'Ordinal Scale' with an example and also mention its characteristics.
(b) Discuss the different approaches for assessing reliability of scales. 5+5
4. Identify whether the following data collection techniques mentioned below is a Primary data or a Secondary data used for the purpose of research data analysis : Give reasons in support of your answer. 2×5
 - (a) Equity share prices obtained from the website of National Stock Exchange of India.
 - (b) Advertisement expenditure of companies obtained from the published annual report of those companies.
 - (c) Yearly Rainfall data for the state of West Bengal obtained from the meteorological department.
 - (d) Employees' Job satisfaction level of BPO Industry collected by personally interviewing selected employees of such industry.
 - (e) Bank lending and deposit rates during the last 10 years obtained from RBI's website.

Module - II

Answer *any two* questions.

5. (a) What is coefficient of variation? Why do we use coefficient of variation?
(b) Write a short note on the measures of central tendency. (2+1)+7

Please Turn Over

6. (a) ABC Company Ltd. manufactures a special toothpaste and sells it through various retailers. It operates in 10 territories and is interested in finding out the relationship between sales (in '000 gram) and other variables—target population (in '000) and per capita income (in Rs). The analyst of the company has developed a multiple linear regression model based on the data. The regression output is as follows :

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.989 ^a	.978	.972	.66828
a. Predictors: (Constant), Per Capita Income, Target population				

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	?	2	?	?	.000 ^b
	Residual	3.126	?	?		
	Total	142.100	?			
a. Dependent Variable: Sales						
b. Predictors: (Constant), Per Capita Income, Target population						

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.001	1.316		-1.521	.172
	Target Population	.047	.012	.563	3.878	.006
	Per Capita Income	.011	.004	.445	3.069	.018
a. Dependent Variable: Sales						

- (i) Interpret the value of R Square.
- (ii) Complete the ANOVA table, state the null and alternative hypothesis of F test and give your opinion on the overall significance of the model.
- (iii) Are the coefficients of independent variables statistically significant? Interpret the coefficient values.
- (b) Prove the relationship between F statistic and R^2 . 1+(2+2+1)+(1+1)+2
7. (a) What is multivariate data analysis?
- (b) Explain briefly the different dependence techniques of multivariate data analysis. 2+8
8. (a) Explain briefly the different decomposition models in time series.
- (b) Narrate the different steps for ARIMA forecasting method. 4+6