QP Code: RM22BBA037 | Reg. No | | | | | | | | | | | AY 22

GIET UNIVERSITY, GUNUPUR – 765022

B. B. A (Fourth Semester) Examinations, May– 2024

21BBAPC24001 – Research Methodology

Time: 3 hrs | Maximum: 60 Marks

(The figures in the right hand margin indicate marks.)

PART – A **(2 x 10 = 20 Marks)**

Q.1. Answer ***ALL*** questions

		CO #	Blooms Level
a.	Explain about research.	CO1	K2
b.	What is Questionnaire?	CO1	K1
c.	Define Type I and Type II errors.	CO2	K2
d.	State the Interview method.	CO2	K2
e.	Explain the data collection methods.	CO3	K2
f.	Discuss about applied research.	CO3	K2
g.	Explain the Chi-Square formula .	CO4	K2
h.	Identify the mode for the following data set: 21, 19, 62, 21, 66, 28, 66, 48, 79, 59, 28, 62, 63, 63, 48, 66, 59, 66, 94, 79, 19 94	CO4	K2
i.	Calculate the chi-square value Observednumberis:6, Expected number is: 6.24	CO1	K2
j.	Discuss about Estimation .	CO2	K1

PART – B **(8 x 5 = 40 Marks)**

Answer ***ANY FIVE*** the questions

		Marks	CO #	Blooms Level
2. a.	What is primary data? Describe the Methods of collecting Primary data .	8	CO1	K2
	(OR)			
b.	Write a short note: i) Pure Research Vs Applied research. ii) Qualitative research Vs Quantitative research. iii) Exploratory research Vs Descriptive research	8	CO1	K3
3.a.	Calculate the mode for the following distribution.	8	CO2	K4

Cl	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80
Frequency	4	4	13	5	6	5	2	1

(OR)

b.	Discuss in detail about report writing.	8	CO2	K2
4.a.	Use a chi-square test to determine whether there is a relationship between gender and getting in trouble at school (both nominal variables). Below is the table documenting the raw scores of boys and girls and their	8	CO3	K4

respective behavior issues (or lack thereof):

Gender and Getting in Trouble at School

	Got in Trouble	Did Not Get in Trouble	Total
Boys	46	71	117
Girls	37	83	120
Total	83	154	237

(OR)

b. Explain the following with diagrams 8 CO4 K3

i) Bar Chart ii) Histogram iii) PARETO Chart

5.a. A Manufacturing company has purchased three new machines of different makes and wishes to determine whether one of them is faster than the others in producing a certain output. Five hourly production figures are observed at random from each other machine and the results are given below. 8 CO4 K4

Observation	A1		A2	A3
1	25		31	24
2	30		39	30
3	36		38	28
4	38		42	25
5	31		35	28

Use ANOVA and determine whether the machines are significantly different in their mean speed. (given at 5% level F 2,12= 3.89)

(OR)

b. Describe steps in hypothesis testing 8 CO4 K3

6.a. The following table gives the monthly sales (in thousand rupees) of a certain firm in three states by its four salesmen: 8 CO4 K4

States	**Salesmen**				T
	A	**B**	**C**	**D**	
X	5	4	4	7	**20**
Y	7	8	5	4	**24**
Z	9	6	6	7	**28**
Total	**21**	**18**	**15**	**18**	**72**

Setup an analysis of variance table for the above information. Calculate F- coefficients and state whether the difference between sales affected by the four salesmen and difference between sales affected in three states are significant.

(OR)

b. Explain the Kruskal Wallis H test. 8 CO4 K4

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