CBCS SCHEME

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22RMI18

First Semester MCA Degree Examination, June/July 2024
Research Methodology & IPR

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Describe the different research types.	10	L1	CO1
	b.	Explain any six research procedures with a diagram.	10	L2	CO1
		OR			
Q.2	a.	List and explain the different motives to carry out research work.	6	L1	CO1
	b.	Mention the four objectives of research.	4	L1	CO1
	c.	Explain any six criteria of good research and four qualities.	10	L2	CO1
		Module – 2			
Q.3	a.	What are the conditions for a research problem? Also, state the components of a research problem.	10	L2	CO2
	b.	Mention the points to be observed by the researchers in selecting the research problem.	6	L2	CO2
	c.	Explain any four techniques involved in defining the research problem.	4	L2	CO2
		OR			
Q.4	a.	Mention any two functions of literature survey and explain the 4 ways in which the literature review helps the researcher.	6	L2	CO2
	b.	Describe the method of developing a therotical frame work considering the relationship between two entities in two different cases.	6	L2	CO2
	c.	List and explain the four steps involved in conducting the literature review.	8	L2	CO2
		Module – 3			
Q.5	a.	Explain any six important concepts relating to research design.	6	L2	CO3
	b.	Describe the basic principle of experimental design.	6	L1	CO3
	c.	Explain the following: (i) Formal and Informal experimental design. (ii) Before and after without control design. (iii) Before and after with control design. (iv) Two groups simple randomized design.	8	L2	CO3
		OR			
Q.6	a.	Define sampling technique. Mention the main steps involved in sampling design.	6	L2	CO3
	b.	Differentiate between the following : (i) Sampling and Non-sampling errors. (ii) Sampling survey and census survey. (iii) Non-probability and Probability sampling.	8	L2	CO3

	c.	Describe the stratified sampling for a technique $N_1 = 5000$, $N_2 = 2000$, $N_3 = 3000$, $\sigma_1 = 15$, $\sigma_2 = 18$ and $\sigma_3 = 5$. For a sample size of 84, determine the samples taken from 3 strata.	6	L3	CO3
		Module – 4			
Q.7	a.	Describe the important concepts relating to Data collection.	10	L1	CO4
	b.	Explain personal interview method indicating its merit and demerits.	10	L2	CO4
		OR			
Q.8	a.	Explain the concept of interpretation. Explain the different techniques of interpretation.	10	L2	CO4
	b.	Explain the following : (i) Technical report. (ii) Popular report.	10	L1	CO4
		Module – 5			
Q.9	a.	Explain the followings : (i) Trade secrets (ii) Patents (iii) Copy right (iv) Trademarks	10	L1	CO5
	b.	Discuss in detail the salient features of design act 2000.	10	L2	CO5
		OR			
Q.10	a.	Describe the patentable inventions under patent act 1970.	10	L2	CO5
	b.	List all the issue and features covered under TRIPS agreement.	10	L2	CO5

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