

SANKALCHAND PATEL UNIVERSITY
Ph.D. COURSE WORK EXAMINATION, JANUARY-2021

Subject Code: 1RI3000101

Date: 08/01/2021

Subject Name: Research Methodology and Statistics

Time: 3 Hrs.

Total Marks: 80

Instructions:

1. Q. 1 to Q. 40 is MCQ based question, 1 mark for each MCQ.
2. No negative marking for wrong answer of MCQ.
3. Q. 41 is descriptive question & answer in blank page & upload it as per given instruction.
4. Please verify the answer & all other detail before click on "SUBMIT" button.

Q.	Answer the following MCQs by selecting appropriate options given below the question	40
1	Research methodology is a scientific approach to solve _____	
	A Research Method	
	B Research Problem	
	C Research Operation	
	D All of above	
2	Latin square is one of the experimental design which has a balance _____ classification.	
	A One- way	
	B Two-way	
	C Tri-way	
	D None of these	
3	Which of the following method is useful for testing of reliability (authenticity) of questionnaire?	
	A Co-efficient of stability	
	B Co-efficient of equivalence	
	C Internal consistency homogeneity	
	D All of above	
4	$Z - M = \frac{M - \bar{X}}{\quad}$	
	A 2	
	B 3	
	C 2/3	
	D 1/2	
5	't' distribution was developed by _____	
	A R.A. Fisher	
	B William Gosset	
	C William Cook	
	D Marshal	
6	Attitude measurement is particularly important in which research?	
	A Scientific Research	
	B Social Research	
	C Historical Research	
	D Behavioral Research	

7	Which is a data collection tool used together information about individuals?		
	A	Sample	
	B	Survey	
	C	Measurement	
	D	Sampling	
8.	In which sampling the entire population is segmented into mutually exclusive group		
	A	Convenience sampling	
	B	Quota sampling	
	C	Judgments sampling	
	D	Snowball sampling	
9	Concerning "authorship" in educational research, intellectual ownership is predominantly a function of:		
	A	Effort expended	
	B	Creative contribution	
	C	Professional position	
	D	Level of higher education	
10	Which of the following is classified into multiple Choice questions?		
	A	Structured questions	
	B	Unstructured questions	
	C	Pre-test questions	
	D	None of the above	
11	Which of the following is the characteristic of Classification?		
	A	Exhaustive	
	B	Mutually exclusive	
	C	Stability	
	D	All of above	
12	Data editing is influenced by the complexity of the _____		
	A	Data	
	B	Questionnaire	
	C	Schedule	
	D	None above	
13	Which of the following is the preferred way to graph the frequency distribution of ungrouped (raw) interval data?		
	A	Multiple Bar Diagram	
	B	Frequency Polygon	
	C	Stacked Bar Diagram	
	D	None of above	
14	Which one of the following statement is false?		
	A	α is called Type I error	
	B	$1 - \alpha$ is called power of the test	
	C	β is called Type II error	
	D	$1 - \beta$ is called power of the test	
15	Most of the non-parametric methods utilize measurement on:		
	A	Interval scale	
	B	Ordinal scale	

	C	Nominal scale	
	D	Both (B) and (C)	
16	If correlation coefficient between two variables is uncertain, it implies that		
	A	$r = +1$	
	B	$r = -1$	
	C	$r = 0$	
	D	$r = 0.5$	
17	Which of the following report is to be presented according to the requirements of a particular law or a rule or a custom?		
	A	Analytical	
	B	Informational	
	C	Statutory	
	D	All of above	
18	Which of the following is not a property of the sample mean?		
	A	Unbiased	
	B	Efficient	
	C	Consistent	
	D	Standardized	
19	The population census carried out by the government of India can be an example of?		
	A	Exploratory Research	
	B	Casual Research	
	C	Descriptive Research	
	D	All of the above	
20	The essential qualities of a researcher are		
	A	Spirit of free enquiry	
	B	Systematization or theorizing of knowledge	
	C	Reliance on observation and evidence	
	D	All the above	
21	Which study is similar to descriptive research study but with a different focus?		
	A	Experimental Research	
	B	Diagnostic Research	
	C	Qualitative Research	
	D	Library Research	
22	Which is the process of summarizing raw data and displaying the same in compact form for further analysis?		
	A	Tabulation	
	B	Coding	
	C	Editing	
	D	Interpretation	
23	Which stage of research process, the research project is given a concrete shape and structure forming a basis of further investigation?		
	A	Observation	
	B	Interest	
	C	Crystallization	
	D	Documentation	

24	Research in which the independent variable is manipulated is called		
	A	Experimental hypothesis- testing research	
	B	Experimental and control group	
	C	Treatments	
	D	Experiment	
25	Which one of the following is an informal experimental design?		
	A	Latin square design	
	B	Factorial design	
	C	Ex-post facto design	
	D	Randomized block design	
26	Which of the following data is internal source of secondary information?		
	A	Sales data	
	B	Financial Data	
	C	Storage data	
	D	All of above	
27	Which research is a well planned, systematic process which implies that it needs planning at all the stages?		
	A	Marketing Research	
	B	Business Research	
	C	Social Research	
	D	Scientific Research	
28	Sample should be _____		
	A	Large	
	B	Small	
	C	Representative	
	D	Attractive	
29	Which of the following group refers to another group assigned to the experiment?		
	A	Treatment Group	
	B	Control Group	
	C	Experimental Group	
	D	Random Group	
30	Which of the following is the least of elements from which the sample may be drawn?		
	A	Sampling Plan	
	B	Sampling frame	
	C	Sampling units	
	D	All of above	
31	Which is a necessary but not sufficient condition of the test of goodness of measures?		
	A	Test of validity	
	B	Reliability	
	C	Measurement	
	D	Test of sensitivity	
32	Which of the following is classified into multiple choice questions?		
	A	Structured questions	
	B	Unstructured questions	
	C	Pre-test Questions	
	D	None of above	

33	The highest level of security controls should applied to which data?		
	A	Restricted data	
	B	Private data	
	C	Public data	
	D	Government data	
34	Which of the following statement is true?		
	A	Acceptance region is always more than the critical region	
	B	Acceptance region is always less than the critical region	
	C	Acceptance region is always equal to the critical region	
	D	There is no relation between acceptance and critical region	
35	In test using rank method, the null hypothesis is rejected if the calculated value:		
	A	Exceeds the tabulated value	
	B	Is less than the tabulated value	
	C	Is either less or more than the tabulated value	
	D	All of above	
36	We should expect negative correlation while studying relationship between		
	A	Income and expenses of family	
	B	Sale and profit of company	
	C	Price and demand of a product	
	D	All of above	
37	SPSS is abbreviation of		
	A	Statistical Package for Social Sciences	
	B	Social Product for Society Science	
	C	Statistical Product of Social Services	
	D	Society of Psychological Social Science	
38	What is the primary approach that is used by the Institutional Review Board (IRB) to assess the ethical acceptability of a research study?		
	A	Utilitarianism	
	B	Deontology	
	C	Ethical skepticism	
	D	Comparativism	
39	Which of the following is true about the use of deception in research?		
	A	It should never be used	
	B	If there is deception in a study, the participants may need to be debriefed	
	C	The use of deception must be outweighed by other benefits of the study	
	D	Both 'B' and 'C' are true	
40	Which of the following is necessary in obtaining informed consent?		
	A	A description of the statistical analyses that will be carried out	
	B	A description of the purpose of the research	
	C	A description of the reliability and validity of test instruments	
	D	A list of publications that the researcher has had in the last ten years	

41A	Answer the following questions. (Any 4)		20
	1	What are the criteria of the good research?	
	2	Write short note on Basic Vs Applied Research.	
	3	Give meaning of Quantitative and Qualitative Research.	
	4	Give the properties of good sample.	
	5	In 2018, out of 2000 workers of a factory 1200 workers were educated. Out of 300 female workers 125 females were educated. In 2019, the number of educated workers increased to 1500 of which 1350 were male workers. The number of uneducated workers was 600 of which 50% were female workers. In 2020 total number of educated workers was 2100 and number of uneducated workers was 200. Out of 300 female workers, 25 female were uneducated arrange these data into tabular form.	
	6	What are the measures of average? Give its uses.	
41B	Answer the following questions. (Any 2)		20
	1	What is ANOVA? Describe briefly the techniques of ANOVA for one way and two way classification.	
	2	"Report writing is more an art that hinges upon practice and experience" – Discuss	
	3	"Research is well-planned scientific process." Discuss this statement.	
	4	What is plagiarism? Discuss its importance in research.	
