



Subject Code :- **21024**
વિષય કોડ

Que. Paper Series
પ્રશ્નપુસ્તિકા કોડ

Research Methodology (Science)

Candidate's Roll No.

Supervisor's Signature



Time : 1 Hours
Total Ques. : 50
Total Marks : 50

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Instructions to Candidates / ઉમેદવારોને સૂચના

Do not open the Question Booklet until ask to do so.

- (1) There are 50 questions in the Test Booklet. The answer of each question is any one out of A, B, C and D. Four alternatives are given with the question. You have to answer all the questions.
- (2) Each correct answer carries (1)one mark. For each wrong multiple answer for each question will be treated as wrong. No negative marking for wrong answer.
- (3) You have to answer on the OMR Sheet is given separately to you. For example : Which State of India has the longest Sea Coast ?
(A) Maharashtra (B) Tamil Nadu
(C) Gujarat (D) Andra Pradesh
In OMR Answer Sheet :
(A) (B) (C) (D)
The true answer is "C". Hence circle of "C" is blackened (encode).
- (4) Don't write anything on the Test Booklet.
- (5) Use blue/black inked ballpoint pen for filling responses in the OMR Answer Sheet. Any other ink, pen or Pencil is strictly prohibited.
- (6) During exam from candidate, if any false matter, guide, cheats, slips, any handwritten material, any printed material, mobile phone, pager, calculator or any electronic equipments are found he/she will be disqualified.
- (7) Gossips, making noise or disobeying instructions given by Invigilator will be considered disobedience.
- (8) Do Rough Work on last page.

- (1) આ પ્રશ્નપુસ્તિકામાં કુલ 50 પ્રશ્નો છે. પ્રત્યેક પ્રશ્નનો સાચો ઉત્તર A, B, C અને D પૈકી કોઈ એક છે. પ્રશ્નની સાથે જ ચારેય વિકલ્પો આપવામાં આવેલા છે. તમારે બધા જ પ્રશ્નોના ઉત્તર આપવાના છે.
- (2) પ્રત્યેક પ્રશ્નના સાચા ઉત્તર માટે 1(એક) ગુણ છે. એક કરતા વધુ વિકલ્પ ડાર્ક કરનાર જવાબને ખોટો ગણવામાં આવશે. ખોટા જવાબ માટે કોઈ ગુણ કપાત થશે નહીં.
- (3) ઉત્તર આપવા માટે અલગ ઉત્તરવહી (OMR SHEET) આપી છે. ઉત્તર નીચેના ઉદાહરણ પ્રમાણે આપવાના છે. ભારતનું કયું રાજ્ય સૌથી લાંબો દરિયા-કિનારો ધરાવે છે ?
(A) મહારાષ્ટ્ર (B) તામિલનાડુ
(C) ગુજરાત (D) આંધ્રપ્રદેશ
ઉત્તરવહી (OMR SHEET)માં
(A) (B) (C) (D)
ઉપરોક્ત પ્રશ્નનો સાચો ઉત્તર "C" છે. આથી "C"નું વર્તુળ કાળું (encode) કરેલ છે.
- (4) આ પ્રશ્નપુસ્તિકામાં કશું જ લખવાનું નથી.
- (5) ઉત્તરવહીમાં ઉત્તરો વાદળી / કાળી શાહીની બોલપોઈન્ટ પેનથી આપવાનાં છે. અન્ય શાહી, પેન કે પેન્સિલનો ઉપયોગ કરી શકાશે નહીં.
- (6) પરીક્ષા દરમ્યાન ઉમેદવાર પાસેથી કોઈ પણ સાહિત્ય, ગાઈડ, માર્ગદર્શિકા, કાપડી, સ્લીપો, અન્ય હસ્તલિખિત કે પ્રિન્ટેડ સાહિત્ય, મોબાઈલ ફોન, પેજર, કેલ્ક્યુલેટર કે અન્ય વીજાણુ ઉપકરણો હોવાનું જણાશે તો ઉમેદવારને ગેરલાયક ગણવામાં આવશે.
- (7) ચાલુ પરીક્ષા દરમ્યાન અંદરોઅંદર ગુસ્સા કરવી, અવાજ કરવો કે નિરીક્ષકની સૂચનાઓનું ઉલ્લંઘન કરવું તે ગેરશિસ્ત ગણાશે.
- (8) રફકામ છેલ્લાં પેજ પર કરવું.

ઉત્તરવહી (OMR Answer sheet) બે પ્રતમાં છે. પરીક્ષા પૂરી થયા બાદ ઉત્તરવહી (OMR Answer Sheet)ની પ્રથમ સ્કેનિંગ પ્રત (Scanning Copy) વર્ગ નિરીક્ષકને પરત કર્યા બાદ જ વર્ગખંડ છોડવાનો રહેશે. તેમ કરવામાં કસુર થયેથી શિસ્તભંગનાં પગલાં ગણી પરીક્ષા માટે જે તે ઉમેદવારને ગેરલાયક ઠેરવવામાં આવશે. બીજી ઉમેદવાર પ્રત (Candidate Copy) ઉમેદવાર સાથે લઈ જઈ શકશે. પ્રશ્નપુસ્તિકા અને બીજી પ્રત ઉમેદવાર પોતાની જોડે લઈ જઈ શકશે.

- 1 Which of the following is not a major data analysis approaches ?
(A) Data Mining (B) Predictive Intelligence
(C) Business Intelligence (D) Text Analytics
- 2 How many main statistical methodologies are used in data analysis ?
(A) 2 (B) 3
(C) 4 (D) 5
- 3 In descriptive statistics, data from the entire population or a sample is summarized with ?
(A) integer descriptors (B) floating descriptors
(C) numerical descriptors (D) decimal descriptors
- 4 Which of the following is true about regression analysis ?
(A) answering yes/no questions about the data
(B) estimating numerical characteristics of the data
(C) modeling relationships within the data
(D) describing associations within the data
- 5 Which of the following is a data visualization method ?
(A) Pie chart and bar chart (B) Line
(C) Circle and triangle (D) Pentagon
- 6 In which scale of measurement, classification, order and equality of units are ensured ?
(A) Ordinal (B) Nominal
(C) Interval (D) Ration
- 7 What is the difference between a bar chart and a histogram ?
(A) Bar charts represent numbers, whereas histograms represent percentages.
(B) A histogram does not show the entire range of scores in a distribution.
(C) There are no gaps between the bars on a histogram.
(D) Bar charts are circular, whereas histograms are square.
- 8 What does the term 'outlier' mean ?
(A) A score that is left out of the analysis because of missing data
(B) The arithmetic mean
(C) A type of variable that cannot be quantified
(D) An extreme value at either end of a distribution
- 9 _____ is data-based, coming up with conclusions that are capable of being verified, by observation or by experiment.
(A) Empirical research (B) Conceptual research
(C) Ideal research (D) Contextual research
- 10 Population value is called
(A) Statistic (B) Parameter
(C) Variable (D) Core value

- 11 The random sampling is useful as it is
(A) Reasonably more accurate as compared to other methods
(B) Economical in nature
(C) Free from personal bias
(D) All of above
- 12 As the sample size increases, the sampling error also
(A) increases (B) decreases
(C) constant (D) not affected
- 13 What is Tippet's Table used for ?
(A) Convenience sampling (B) To reduce sampling errors
(C) Interval sampling (D) Simple random sampling
- 14 Which of the following is not a type of page margin ?
(A) Left (B) Center
(C) Right (D) Top
- 15 Which of the following is not an option available in "Insert Table - Autofit behaviour" ?
(A) Fixed column width (B) Autofit to contents
(C) Autofit to window (D) Autofit to column
- 16 Which of the following chart is used only for single series data ?
(A) Pie chart (B) Column chart
(C) Scattered chart (D) Line chart
- 17 Which of the following function is used for finding Mean of the numbers in Excel ?
(A) SUM (B) AVERAGE
(C) STDEV (D) MEAN
- 18 How a slide show can be started in Microsoft Powerpoint ?
(A) By pressing F5 (B) By pressing F1
(C) (A) and (B) (D) Slide show tab
- 19 Which scale is the simplest form of measurement ?
(A) Ordinal (B) Interval
(C) Ratio (D) Nominal
- 20 Absolute zero exists in
(A) Nominal scale (B) Interval scale
(C) Ratio scale (D) Ordinal scale

- 21 Abilities, attitudes and interests can be measured by
(A) Rating scale (B) Objective tests
(C) Self analysis (D) Observational methods
- 22 A teacher prepares a list of latest arrivals in the various libraries of colleges of a University. His list reflects the number of books as reported. Which of the measurement scales is implied in this ?
(A) Nominal (B) Ordinal
(C) Interval (D) Ratio
- 23 The rankings of teams in a tournament constitutes a _____ scale.
(A) Nominal (B) Ordinal
(C) Interval (D) Ratio
- 24 Which section of a research paper describes succinctly what the research proposes to investigate ?
(A) Introduction (B) Methods
(C) Results (D) Conclusion
- 25 Which section of a research report is not contained in a research proposal ?
(A) research question
(B) results and discussion
(C) objectives
(D) literature review
- 26 The essential difference between a research proposal and research report is that _____. Identify incorrect option.
(A) a research report states what was done rather than what will be done and includes the actual results of the study
(B) research report states the research question
(C) research report states the purpose of the study
(D) research report depicts plan of the work
- 27 What is called when journals go through an extra step of having experts in the field review the validity of the information before it is published ?
(A) Journal Review
(B) Colleague Review
(C) Peer Review
(D) Information Review

- 28 A researcher divides a heterogenous population into homogenous group and then draws samples from each group. Which sampling technique is the researcher using ?
- (A) Cluster sampling (B) Stratified sampling
(C) Non-probability sampling (D) Quota sampling
- 29 Simple random sampling can not be used in _____.
- (A) Large population
(B) Homogenous population
(C) Heterogenous population
(D) Legal research
- 30 Population is called as _____ where the members are identical to one another.
- (A) Universe (B) Heterogenous
(C) Finite universe (D) Homogenous
- 31 In _____ every unit falling after a chosen gap of units is included in the sample.
- (A) Interval sampling
(B) Cluster sampling
(C) Purposive sampling
(D) Simple random sampling
- 32 _____ is a preferred sampling method for the population with finite size.
- (A) area sampling (B) cluster sampling
(C) systematic sampling (D) purposive sampling
- 33 Which of the following is the first step in starting the research process ?
- (A) Searching sources of information to locate problem
(B) Survey of related literature
(C) Identification of problem
(D) Searching for solutions to the problem
- 34 One of the following search engine is exclusively meant for scientific information :
- (A) Google Scholar (B) Yahoo
(C) Wikipedia (D) Altavista

- 35 "Controlled Group" is a term used in _____.
(A) Survey research
(B) Historical research
(C) Experimental research
(D) Descriptive research
- 36 Which of the following is not a "Graphic representation" ?
(A) Pie Chart
(B) Bar Chart
(C) Table
(D) Histogram
- 37 Which of the following is not true about e journals ?
(A) They are distributed through digital methods.
(B) They also have editors or editorial boards.
(C) They are publications of serial nature.
(D) They are always free of cost.
- 38 The format of thesis writing is the same as in
(A) preparation of research paper
(B) writing of seminar presentation
(C) a research dissertation
(D) presenting a conference paper
- 39 All the physical components of the computer are collectively called
(A) Software
(B) Hard Ware
(C) Firm Ware
(D) Circuit
- 40 Summarizing raw data and displaying them on compact statistical tables for analysis is
(A) Tabulation
(B) Coding
(C) Transcription
(D) Editing

- 41 The degree of freedom for paired t test is
 (A) $n - 1$ (B) n
 (C) $n_1 + n_2 - 2$ (D) $n_1 + n_2$
- 42 The error arises at the time of accepting hypothesis, when it is false situation it will be
 (A) Type II (B) Type I
 (C) Standard error (D) Nominal error
- 43 If you have dependent sample of ranked data, which non parametric statistics should you apply ?
 (A) One way ANOVA (B) Chi-square test
 (C) Wilcoxon (D) U test
- 44 Which of the following is not true parametric statistics ?
 (A) They are inferential test.
 (B) They assume certain characteristics of population parameters.
 (C) They assume normality of the population.
 (D) They are distribution free.
- 45 What is listed in the first column of an ANOVA summary table ?
 (A) Sources of variation (B) Degree of freedom
 (C) Sum of squares (D) Residual or error
- 46 Which of the following are source of variance ?
 (A) The interaction (B) Residual or error
 (C) Both (A) and (B) (D) Population
- 47 In one way ANOVA, different level of factors are called -
 (A) Treatment (B) Errors
 (C) Interaction (D) Residual or error
- 48 A good qualitative problem is
 (A) A proper designing of project
 (B) Defines the variables
 (C) Defines a research hypothesis to be tested
 (D) Defines the relationship between the variables that the researchers expects to find
- 49 Your prediction to your research questions is
 (A) Result (B) Hypothesis
 (C) References (D) None of the above
- 50 A research proposal is best described as
 (A) Method to select a frame of reference
 (B) Set of rules that govern the selection of subjects
 (C) Series of steps completed in a logical order
 (D) Plan that directs the research design

SPACE FOR ROUGH WORK

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