PUNE VIDYARTHI GRIHA'S

COLLEGE OF SCIENCE AND TECHNOLOGY

Affiliated to University of Mumbai

Question Bank

Class: F.Y.BMS Semester: 1

Subject: Business Statistics

Unit 1

1. Measures of Central tendency is divided into _____ types
   a) 2
   b) 3
   c) 4
   d) 5
2. The ratio of summation of all objects to the total number of observation is called ..... .
   a) Mean
   b) median
   c) probability
   d) mode
3. _____ is the mid value of arranged data
   a) Mean
   b) Median
   c) Mode
   d) Percentile
4. _____ is the value of the highest frequency
   a) Mean
   b) Median
   c) Mode
   d) mean deviation

5. Quartile divide he series into ____ parts
   a) 2
   b) 3
   c) 4
   d) 5
6. Mathematical average is _____
   a)Mean
   b) Median
   c) Mode
   d) mean deviation

7. Suppose there are 9 observation in arranged data then median will be _____ observation
   a) 4
   b) 5

c) 6
d) 7

8. Class mark is _____ of class interval
    a) Mean
    b) Median
    c) Mode
    d) Midpoint
9. Histogram is in the form of _____
    a) Rectangle
    b) Square
    c) Line
    d) Circle
10. In exclusive class interval , we exclude the _____ limit of the class
    a) Upper
    b) Lower
    c) Zero
    d) Classmark
11. Cumulative frequency is also known as _____ gives
    a) R
    b) S
    c) T
    d) O
12. Frequency curve can be drawn with the help of _____
    a) frequency polygon
    b) histogram
    c) less than o give
    d) more than o give
13. If x=1,2,3,4,5 then median is _____
    a) 1
    b) 2
    c) 3
    d) 6
14. If x=10,19,25,10,31,10 then mode is _____
    a) 10
    b) 19
    c) 25
    d) 31
15. In a survey, the data is collected in _____ manner
    a) Good
    b) Bad
    c) Worst
    d) Systematic
16. _____ is a branch of mathematics
    a) Biology
    b) Chemistry
    c) Statistics
    d) Biotechnology
17. If mean is 20 and number of observation is 5 then summation of values of x is _____
    a) 100
    b) 120
    c) 20

d) 5

18. There are _____ types of data
    a) 1
    b) 2
    c) 3
    d) 4
19. The data collected for first time is known as _____
    a) Data
    b) primary data
    c) secondary data
    d) survey
20. There are _____ types of classifications
    a) 1
    b) 2
    c) 3
    d) 4
21. If the mean of 6 numbers is 41 then the sum of these numbers is
    a)250
    b)246
    c)134
    d)456
22. Mean for grouped frequency distribution (discrete) : ..... .
    a) x1+x2+x3+.....xn/xn
    b) x1+x2+x3+..... xn/n
    c) €fixi/€fi
    d) €fixi'/€fi
23. To find median we need to arrange the numbers in _____ order
    A. Ascending
    B. Descending
    C. Horizontal
    D. vertical
24. Mode of 1,2,3,2,2,2,4,1 is_____
    A. 1
    B. 2
    C. 3
    D. 4
25. Find arithmetic mean of the following question: X= 18,20,22,24,26,28,30,32
    F= 2,5,12,17,14,6,3,1
    a) 3.33
    b) 25.4
    c) 30.6
    d) 13.5

UNIT 2

26. Measure of spread or scatter of data is called ..... .

a) measure of dispersion

b) measure of Central tendency

c) range

d) coefficient of range

27. ..... Can be defined as difference between maximum value and minimum value.

a) measure of dispersion

b) measure of Central tendency

c) range

d) coefficient of range

28. ..... is defined as the arithmetic mean of its absolute deviation of the observation from any suitable concept.

a) measure of dispersion

b) measure of Central tendency

c) range

d) mean deviation

29. If variance =4 the standard deviation is ____

a) 16
b)4
c) 8
d) 15

30. Co-efficient of range =_____

a) (Max-Min)/(Max+Min)
b) Max-Min
c)Max+Min
d) Max. min

31. There are _____ types of measure of dispersion
    A. 1
    B. 2
    C. 3
    D. 4
32. The straight line graph of the linear equation Y = a+ bX , slope will be upward if:
a) b = 0
b) b < 0
c) b > 0
d) b ≠ 0

33. The correlation coefficient lies between:
a) 0 or 1
b) -2 or +2
c) -1 or +1
d) 1 or 2
34. The purpose of simple linear regression analysis is to:
a) Predict one variable from another variable
b) Replace points on a scatter diagram by a straight-line
c) Measure the degree to which two variables are linearly associated
d) Obtain the expected value of the independent random variable for a given value of the dependent variable

35. If x and y both decrease then the co relation is _____
    a) linear
    b) Positive
    c) Negative
    d) Perfect
1) If the points on the scatter diagram show no tendency either to increase together or decrease together the value of r will be close to:
a) -1
b) +1
c) 0.5
d) 0
36. Coefficient of variance is _____
    a) standard deviation
    b) mean
    c) median
    d) mode
37. If mean deviation=9 and mean is 3 then coefficient of mean deviation is _____
    a) 0
    b) 2
    c) 3
    d) 1
38. Quartile deviation is a measure of _____
    a) central tendency
    b) dispersion
    c) mean
    d) median
39. If Q1=5 and Q3=10 then quartile deviation is _____
    a) 5

b) 10
c) 2.5
d) 3

40. There are _____ methods to find co relation
a) 1
b) 2
c) 3
d) 4

41. Co relation is denoted by _____
a) r
b) s
c) t
d) h

42. If we need to fit a straight line, we get _____ normal equations
a) 1
b) 2
c) 3
d) 4

43. B_{yx} means_____
a) Regression coefficient of y on x
b) Regression coefficient of x on y
c) Correlation coefficient of x on y
d) Correlation coefficient of y on x

44. B_{xy} means_____
e) Regression coefficient of y on x
f) Regression coefficient of x on y
g) Correlation coefficient of x on y
h) Correlation coefficient of y on x

45. $B_{yx}XB_{xy}$=_____
a) R
b) S
c) T
d) O

46. A process by which we estimate the value of dependent variable on the basis of one or more independent variables is called_____
(a) Correlation
(b) Regression
c) Residual
d) Slope

47. The regression equation always passes through:
(a) (X, Y)
(b) (a, b)
(c) (x bar , y bar)
d) (1,0)

48. The graph showing the paired points of (Xi , Yi) is called:
(a) Scatter diagram
b) Histogram
(c) Historgram

(d) Pie diagram

49. When bXY is positive, then byx will be:
    (a) Negative
    (b) Positive
    (c) Zero
    (d) One

50. A measure of the strength of the linear relationship that exists between two variables is called:
    (a) Slope
    (b) Intercept
    (c) Correlation coefficient
    d) Regression equation

51. There are _____ methods to find co relation
    e) 1
    f) 2
    g) 3
    h) 4

52. Co relation is denoted by _____
    e) r
    f) S
    g) T
    h) H

53. If we need to fit a straight line, we get _____ normal equations
    e) 1
    f) 2
    g) 3
    h) 4

UNIT 3

54. A _____ is a sequence of values of a phenomenon arranged in order of their occurrence.
    a) Time series
    b) Index numbers
    c) Chain Base Index number
    d) none of these

55. The method used to derive regression constants of a regression equation is known as _____
    a) Product moment
    b) Least square
    c) Moving average
    d) none of these

56. There are _____ components in time series.
    a) 3
    b) 4
    c) 5
    d) None of these

57. Index number _____ carries unit of measurement
    a) Sometimes

b) Always
c) Never
d) Rarely

58. The index number for base period is _____ taken as 100

a) Sometimes
b) Always
c) Never
d) Rarely

59. There are _____ types of principal index numbers

a) 1
b) 2
c) 3
d) 4

60. An orderly set of data arranged in accordance with their time of occurrence is called:
(a) Arithmetic series
(b) Harmonic series
(c) Geometric series
(d) Time series

61. A time series consists of:
(a) Short-term variations
b) Long-term variations
(c) Irregular variations
(d) All of the above

62. The graph of time series is called:
(a) Histogram
(b) Straight line
(c) plane
(d) Ogive

63. Secular trend can be measured by:
(a) Two methods
(b) Three methods
(c) Four methods
d) Five methods

64. Increase in the number of patients in the hospital due to heat stroke is:
(a) Secular trend
(b) Irregular variation
(c) Seasonal variation
(d) Cyclical variation

65. Damages due to floods, droughts, strikes fires and political disturbances are:
(a) Trend (
b) Seasonal
(c) Cyclical
(d) Irregular

66. An index number is called a simple index when it is computed from:
(a) Single variable
(b) Bi-variable
(c) Multiple variables
(d) None of them

67. Index numbers are expressed in:
(a) Ratios

(b) Squares
(c) Percentages
(d) Combinations

68. Index for base period is always taken as:
(a) 100
(b) One
(c) 200
(d) Zero

69. When the prices of rice are to be compared, we compute:
(a) Volume index
(b) Value index
(c) Price index
(d) Aggregative index

70. Consumer price index numbers are obtained by:
(a) Laspeyre's formula
(b) Fisher ideal formula
(c) Marshall Edgeworth formula
(d) Paasche's formula

71. Laspeyre's index = 110, Paasche's index = 108, then Fisher's Ideal index is equal to:
(a) 110
(b) 108
(c) 100
(d) 109

72. An index number constructed to measure the relative change in the price of an item or a group of items is called:
a) Quantity index number
(b) Price index number
(c) Volume index number
(d) Difficult to tell

73. When relative change is measured for a fixed period, it is called:
(a) Chain base method
b) Fixed base method
(c) Simple aggregative method
d) Cost of living Index method

74. Index number having downward bias is:
a) Laspeyre's index
b) Paasche’s index
(c) Fisher's ideal index
(d) Marshall Edgeworth index

75. Index number having upward bias is:
a) Laspeyre's index
(b) Paasche's index
(c) Fisher's ideal index
(d) Marshal Edgworth index

UNIT 4

76. For a statistical experiment every possible outcome is called
    a) Sample
    b) Sample point
    c) Value
    d) Probability

77. Maximum criterion is a decision making under _____
    a) Risk
    b) No risk
    c) Certainty
    d) Uncertainty
78. There are _____ elements in the sample space when two dice are thrown
    a) 6
    b) 12
    c) 18
    d) 36
79. Decisiom tree calculation _____ begins from left to right
a) Sometimes
b) Always
c) Never
d) Rarely
80. There are _____ types of decision making criterion
    a) 1
    b) 2
    c) 3
    d) 4
81. The probability of appearing both heads when two coins are tossed is _____
    a) 1
    b) ½
    c) ¼
    d) 4
82. States of nature are also known as _____
    a) Outcomes
    b) Objects
    c) Event
    d) Space
83. A decision node is represented by _____
    a) Square
    b) Rectangle
    c) Line
    d) Circle

84. A set of logical and mathematical operations performed in a specific sequence is called a _____
   a) complete enumeration
   b) diagnostic analysis
   c) algorithm
   d) objective

85. A pessimistic decision making criterion is_____
   a) Maximax
   b) equally likely
   c) maximin.
   d) decision making under certainty

86. An analytic and systematic approach to the study of decision making is referred to as _____
   a) decision making under risk.
   b) decision making under uncertainty.
   c) decision theory.
   d) decision analysis

87. _____ are denoted by S_1,S_2, S_3 ……. S_n
   a) Actions
   b) Payoff
   c) States of nature
   d) Variable

88. _____ are denoted by A_1,A_2, A_3 ……. A_n
   a) Actions
   b) Payoff
   c) States of nature
   d) Variable

89. _____ is known as expected pay off
   a) EMV
   b) EOL
   c) EPPI
   d) ESL

90. While finding _____, regret values are to be calculated
   a) EMV
   b) EOL
   c) ESL
   d) EPPI

91. The best course of action is the one with _____ pay off
   a) Maximum
   b) Minimum
   c) Equal
   d) Unequal

92. States ofnature is denoted by _____
   a) Circle
   b) Square

c) Rectangle
d) line

93. If A is any event in S and $\bar{A}$ its complement, then $P(\bar{A})$ is equal to:
(a) 1
(b) 0
(c) 1- A
(d) 1 - P(A)

94. A collection of one or more outcomes of an experiment is called:
(a) Event
(b) Outcome
(c) Sample point
(d) None of the above

95. A process that leads to the occurrence of one and only one of several possible observations is called:
(a) Random experiment
(c) Random variable
(c) Experiment
(d) Probability distribution

96. A letter is chosen at random from the word "Statistics". The probability of getting a vowel is:
(a) 1/10
(b) 2/10
(c) 3/10
(d) 4/10

97. When a die and a coin are rolled together, all possible outcomes are:
(a) 6
(b) 2
(c) 36
(d) 12

98. 37. If n coins are tossed, the possible outcomes are:
(a) n
(b) 2
(c) 2 n
(d) All of them

99. . If A and B are disjoint events then the statement which is always
rue is:
(a) P(A/B) = 0
(b) $P(A \cup B) = 0$
(c) $P(A \cap B) = 1$
(d) P(A) = P(B)

100. Two events A and B are called mutually exclusive if:
(a) $A \cup B = \Phi$
(b) $A \cap B = \Phi$
(c) $A \cap B = S$
(d) $A \cap B = 1$