Deccan Education Society, Pune

Chintamanrao College of Commerce, Sangli – 416 415

B.Com. Part II – (Sem III) Examination, March - 2021

Subject: Business Statistics
Multiple Choice Questions (Business Statistics)
(CBCS Pattern)

QUESTION BANK

Question: Select the correct option.

Unit I: Introduction to Statistics

1. The information collected for statistical investigation is called _____

   a. Number b. **Data** c. Sample d. None of these

2. Income of a person is an example of _____ data.

   a. **Discrete** b. Qualitative c. Quantitative d. Continuous

3. A finite subgroup of a population is called _____

   a. **Sample** b. Census c. Group d. All the above

4. In stratified random sampling, items of each group are included in the right _____

   a. Direction b. Units c. **Proportion** d. Groups

5. The criteria according to which the data are classified is called as _____ of classification.

   a. **Bases** b. Types c. Groups d. Values

6. The next stage of classification is _____

   a. Qualitative b. **Tabulation** c. Population d. None of these

7. The "size of a room" is an example of _____

   a. **Constant** b. Variable c. Class d. Sample

8. A variable which takes value within given range is called a _____ variable

   a. **Continuous** b. Discrete c. Standard d. Constant

9. The difference between upper limit and lower limit of a class is called _____

   a. Frequency b. Class interval c. Midpoint d. **Class width**

10. If the classes are 0 to 9, 10 to 19, 20 to 29, 30 to 39 etc.; then they are called as _____ type of classes.

a. Continuous b. Exclusive c. Open end d. **Inclusive**

11. There are _____ type of cumulative frequencies.

a. **2** b. 3 c. 4 d. None of these

12. Diagrammatic representation gives only an _____ idea about the data.

a. Clear b. Exact c. **Approximate** d. Suitable

13. Pie diagram is also called as _____ diagram.

a. **Angular** b. Bar c. Subdivided bar d. Simple

14. _____ representation is useful to study mathematical relationship between two variables.

a. Circular b. Bar. c. **Graphical** d. None of these

15. In histogram, _____ taken along x-axis

a. Frequency b. **Class intervals** c. Angles d. Variable

16. Histogram is used to locate _____ value.

a. **Modal** b. Median c. Range d. Mean

17. _____ ogive curve is used to locate deciles.

a. More than b. **Less than** c. a or b d. Both a and b

18. _____ is a main part of table.

a. Title b. Footnote c. Headnote d. **Body**

19. The best method of presentation of data is _____

a. Textual b. Diagrammatic c. Headnote d. **Tabular**

20. The quickest method to collect the primary data is _____

a. **Telephone interview** b. Personal interview
c. By observation d. Indirect interview

21. In sampling with replacement, a sampling unit can be selected _____

a. Only once b. **More than once** c. Less than once d. None of these

22. The sum of frequencies for all the classes will always equal to _____

a. 1 b. **The number of elements in the dataset**
c. Number of classes d. Value between 0 and 1

23. Constructed on x-y plane, a histogram is a graph of adjacent _____

a. Squares b. Circles c. **Rectangles** d. Triangles

24. Less than cumulative frequency is related to _____ limit of the class.

a. **Upper** b. Lower c. a and b d. None of these.

25. The easiest and most commonly used method of sampling is _____

a. **Simple random sampling** b. Stratified random sampling
c. Cluster sampling d. Systematic sampling

Unit II: Measures of Central Tendency

1. The median, deciles, percentiles are all considered as _____

a. Mathematical average b. Population average c. Sample average d. **Positional average**

2. In the two units of company, the employees in one unit are 650 and the monthly salary is $2750 and employees in second unit are 700 and monthly salary is $2500. Then the combined mean salary _____

a. **$2620** b. $2520 c. $2420 d. $2320

3. The number of observations is 30 and the value of arithmetic mean is 15. Then the sum of all values is _____

a. 15 b. **450** c. 200 d. 45

4. The value of $\Sigma f x = 180$, A=22, h=5 and AM=120. Then the observations are _____

a. 59 b. **30** c. 39.5 d. 49.5

5. According to percentiles, the median to be measured must lie in _____ position.

a. 80^{th} b. 40^{th} c. **50^{th}** d. 10^{th}

6. The sum of values of data divided by total number of values is called _____

a. **AM** b. Weighted AM c. GM d. HM

7. The difference of mode and mean is equal to _____

a. **3 × (mean – median)** b. (2 × mean) – median
c. Mean – (2 × mode) d. (2 × mode) – mean

8. If the mean is 11 and median is 13, then the value of mode is _____

a. 15 b. 13 c. 11 d. **17**

9. The measure which describes the detailed characteristic of whole dataset is classified as _____

a. **Average**
b. Positively skewed value
c. Negatively skewed value
d. None of these

10. The mode is the best measure of central tendency if the analysis is _____

a. **Descriptive** b. Experimental c. Exploratory d. Set of deciles

11. In the deciles, the central tendency median to be measured must lie in _____

a. D4 b. D7 c. D6 d. **D5**

12. The type of central tendency measures which divides datasets into hundred parts is classified as _____

a. **Percentile** b. Multiple of data c. Quartiles d. Deciles

13. In statistics, out of 100 marks of 21 students in final exam are – 90, 95, 95, 94, 90, 85, 84, 83, 85, 81, 92, 93, 82, 78, 79, 81, 80, 82, 85, 75, 85; then the mode of the data is _____

a. **85** b. 95 c. 90 d. 81

14. In AM, the sum of deviations of all the recorded observations must always be equal to _____

a. 2 b. -1 c. 1 d. **0**

15. When the data is arranged, the middle value in the set of observations is called as _____

a. **Median** b. Mean c. Mode d. Variance

16. The service time (in minutes) at airport, the ticket counter is as 4.5, 5.5, 6, 7, 8, 8.5, 4, 3, 3.5, 2.5, 3.8. Then the median of the data is _____

a. 3.8 b. **4.5** c. 4 d. 4.75

17. The distribution in which the values of mean, median and mode are not equal is considered as _____

a. Experimental distribution
b. Symmetrical distribution
c. **Asymmetrical distribution**
d. Exponential distribution

18. If the value of mode is 14, and AM=5, then the value of median is _____

a. 12 b. 18 c. **8** d. 14

19. The A.M. $\bar{X}$ = _____

a. $\frac{\Sigma f x}{\Sigma f}$ b. $A + \frac{\Sigma f d}{\Sigma f}$ c. $A + \frac{\Sigma f d}{\Sigma f}\ h$ d. **All the above**

20. If $\bar{X} = 25$, which of the following will be minimum?

a. $\Sigma(X_i - \bar{X})$ b. $\Sigma (X_i - 25)^2$ c. $\Sigma(X_i - 27)$ d. None of these

21. If $X_1 = 20$, $X_2 = (-20)$, then A.M. = _____

a. **0** b. Infinity c. 1 d. Impossible

22. The mean of 10 observations is 10. All the observations are increased by 10%, the mean of increased observations will be _____

a. 10 b. **11** c. 1.1 d. 10.1

23. The combined AM of 2 observations is calculated by the formula _____

a. $\frac{(X1+X2)}{(n1+n2)}$ b. $\frac{(n1+n2)}{2}$

c. $\frac{(n1\times \bar{x}1 + n2 \times \bar{x}2)}{2}$ d. $\frac{(n1\times X1 + n2 \times X2)}{2}$

24. We must arrange the data while calculating _____

a. Mean b. **Median** c. Mode d. S.D.

25. If in a discrete series, 75% values are less than 30 then _____

a. $Q_3 < 75$ b. $Q_3 > 30$ c. **$Q_3 = 30$** d. None of the above.

Unit III: Measures of Dispersion

1. The sum of highest and lowest value is 80 and coefficient of range is 0.625. Then the difference between highest and lowest value is _____

a. 70 b. 100 c. **150** d. 50

2. The formula written as Q.D. divided by sum of Q_3 and Q_1 is used to calculate _____

a. **Coefficient of Q.D.** b Quartiles
c. Coefficient of interquartile d. None of these

3. The output of 20 workers in handmade pot painting store is 55, 65, 62, 60, 74, 75, 70, 70, 72, 67, 78, 79, 80, 68, 54, 56, 63, 69, 71. Then the coefficient of range is _____

a. 0.29 b**. 0.19** c. 0.49 d. 0.39

4. The A.M. is 78 and C.V. is 12.3%. Then the standard deviation is _____

a. 10.594 b. **9.594** c. 8.594 d. 11

5. The categories of measures of dispersion are classified as _____

a. Uniform measures b. Relative measures c. Absolute measures d. **Both b and c**

6. The example of applications of range in real world includes _____

a. Weather forecast b. Quality control
c. Fluctuation in share prices d. **All the above**

7. The formula for coefficient of range is _____

a. $\frac{(L+L)}{(H+H)}$ b. $\frac{(H+H)}{(L+L)}$ **c.** $\frac{(H-L)}{(H+L)}$ d. $\frac{(H+L)}{(H-L)}$

8. Considering the standard deviation, the mean absolute deviation is equal to _____

a. $\frac{5\sigma}{4}$ b. $\frac{5\sigma}{8}$ **c.** $\frac{4\sigma}{5}$ d. $\frac{7\sigma}{8}$

9. If quartile range is 24, then Q.D. is _____

a. 48 b. **12** c. 24 d. 72

10. If A.M. is multiplied by C.V., then the resulting value is _____

a. Coefficient of deviation b. Coefficient of mean c. **Standard deviation** d. Variance

11. If the large number of values lie in the central part of the data, then the spread of values is measured by _____

a. Percentile range b. **Interquartile range** c. Quartile range d. Decile range

12. The measure of dispersion can never be _____

a. Positive b. 0 c. **Negative** d. 1

13. If there are many extreme scores in all examinations, the dispersion is _____

a. **Large** b. Small c. Normal d. Symmetric

14. If the values of variable x are - -4, -20, -30, -44 and -36, then the value of range will be _____

a. -48 b. **40** c. -40 d. 48

15. If Q_3=20 and Q_1=10, then coefficient of Q.D.= _____

a. 3 b. 2/3 c. **1/3** d. 1

16. The sum of absolution deviations is minimum if these deviations are taken from _____

a. Mean b. Mode c. **Median** d. Q_3

17. Which of the following is unit free quantity?
a. Range b. **C.V**. c. Standard Deviation d. A.M.

18. The variance is 0 only if all the observations are _____

a. Different b. Square c. Square-root d. **Same**

19. The standard deviation of -5, -5, -5, -5, -5 is _____

a. -5 b. 5 c. **0** d. -25

20. Standard deviation is always calculated from _____

a. **Mean** b. Median c. Mode d. Q_1

21. The variance of 19, 21, 23, 25 and 27 is 8. Then the variance of 14, 16, 18, 20 and 22 is _____

a. Greater than 8 b. **8** c. Less than 8 d. 8 – 5 = 3

22. If the dispersion is small, the standard deviation is _____

a. Large b. 0 c. **Small** d. Negative

23. The mean deviation of scores 12, 15, 18 is _____

a. 6 b. **0** c. 3 d. 2

24. Dispersion is divided as spread of actual values from _____

a. Median b. **Average** c. Mode d. None of these

25. Q.D.= _____σ

a. **2/3** b. 4/5 c. 5/6 d. 1/3