ST. LAWRENCE HIGH SCHOOL

27, BALLYGUNGE CIRCULAR ROAD

Class : 11	Subject : STATISTICS	Term : FIRST TERM	Max Marks : 60

Q 1 : Monthly income of workers of a factory is   **Marks :** 1

1 . attribute

2 . discrete variable

3 . continuous variable   ✅ (This Answer is Correct)

4 . none of these

Q 2 : Proportion of girls in a class of 100 students   **Marks :** 1

1 . attribute

2 . discrete variable   ✅ (This Answer is Correct)

3 . continuous variable

4 . none of these

Q 3 : Grades obtained in examination is   **Marks :** 1

1 . attribute   ✅ (This Answer is Correct)

2 . discrete variable

3 . continuous variable

4 . none of these

Q 4 : An important disadvantage of mail questionnaire method is   **Marks :** 1

1 . It is time consuming

2 . there is large amount of non-response   ✅ (This Answer is Correct)

3 . it is free from interviewer bias

4 . none of these

Q 5 : The mode of diagramatic representation comprises a number of equidistant rectangles, each of them being meant for some specific category of the available data is known as   **Marks :** 1

1 . bar diagram   ✅ (This Answer is Correct)

2 . line diagram

3 . histogram

4 . none of these

Q 6 :   Data on religion is the example of   **Marks :**   1

1 . ordinal data

2 . nominal data   ☑ (This Answer is Correct)

3 . quantitative data

4 . none of these

Q 7 :   column diagram is needed to represent   **Marks :**   1

1 . continuous data

2 . discrete data   ☑ (This Answer is Correct)

3 . both

4 . none of these

Q 8 :   In case of an ogive along Y axis we plot   **Marks :**   1

1 . cumulative frequency   ☑ (This Answer is Correct)

2 . absolute frequency

3 . class boundaries

4 . none of these

Q 9 :   In case of a Histogram along X axis we plot   **Marks :**   1

1 . class frequency

2 . cumulative frequency

3 . class boudaries   ☑ (This Answer is Correct)

4 . none of these

Q 10 :   From the intersection point of less than type and more than type ogive _____can be determined.   **Marks :**   1

1 . mode

2 . median   ☑ (This Answer is Correct)

3 . mean

4 . none of these

Q 11 :   Frequency density is necessary for drawing   **Marks :**   1

1 . Ogive

2 . step diagram

3 . histogram   ☑ (This Answer is Correct)

4 . none of these

Q 12 :   The score of 9 students in economics are as follows 40,37,41,38,31,37,44,45,42.Find median score.   **Marks :**   1

    1 .   42

    2 . 40   ☑ (This Answer is Correct)

    3 .   38

    4 .   none of these

Q 13 :   If 2 variables X and Y are related in the form of Y=a +bX   **Marks :**   1

    1 .   median of X= median of Y+a

    2 .   median of Y= median of X-a

    3 . median of Y=a +b . median of X   ☑ (This Answer is Correct)

    4 .   none of these

Q 14 :   If 3x+5y=15 and median of x be 2 then median of y is   **Marks :**   1

    1 . 1.8   ☑ (This Answer is Correct)

    2 .   2

    3 .   1.5

    4 .   none of these

Q 15 :   If 2u=5x is the relation between the variable x and u and geometric mean of x is 1, find the geometric mean of u   **Marks :**   1

    1 .   5

    2 .   2

    3 . 2.5   ☑ (This Answer is Correct)

    4 .   none of these

Q 16 :   The weights of 6 persons are 65,58,56,60,67 and 70 (in kg). Find the median value   **Marks :**   1

    1 .   62 kg

    2 . 62.5 kg   ☑ (This Answer is Correct)

    3 .   72 kg

    4 .   none of these

Q 17 :   Geometric mean of the observations 5,1,0,2,4 is   **Marks :**   1

    1 . 0   ☑ (This Answer is Correct)

    2 .   1

    3 .   5

4 . none of these

Q 18 : The sum of the deviations of the values of a variable from its _____ is zero				**Marks :** 1

1 . median

2 . mode

3 . mean							✅ (This Answer is Correct)

4 . none of these

Q 19 : For a set of positive quantities which of the following is true?				**Marks :** 1

1 . AM≥ Gm≥Hm						✅ (This Answer is Correct)

2 . HM≥Gm≥AM

3 . AM=GM=HM

4 . none of these

Q 20 : The value of the least Fermat number is				**Marks :** 1

1 . 5

2 . 2

3 . 3							✅ (This Answer is Correct)

4 . none of these

Q 21 : Find the remainder when x^3+5x^2+3x+2 is divided by x-1				**Marks :** 1

1 . 10

2 . 11							✅ (This Answer is Correct)

3 . 0

4 . none of these

Q 22 : If $f(x)=6x^3 + 4x^2 +3x +2$, find the value of f(1/3)				**Marks :** 1

1 . 0.27272727273

2 . 11/ 0 3						✅ (This Answer is Correct)

3 . 12/0 5

4 . none of these

Q 23 : Find pq+ qr+pr . If p, q and r are 3 roots of the equation $x^3 + ax -b=0$.				**Marks :** 1

1 . a							✅ (This Answer is Correct)

2 . b/a

3 . 0

4 . none of these

Q 24 :   Which one of the following is true   **Marks :**   1

1 . greatest common divisor(na,nb)=n. greatest common divisor (a, b)

2 . greatest common divisor (a/n, b/n)= 1/n [greatest common divisor (a,b)]

3 . both   ☑ (This Answer is Correct)

4 . none of these

Q 25 :   The HM and GM of 2 positive observations are 12 and 18 respectively. Find tfheir AM   **Marks :**   1

1 . 54

2 . 27   ☑ (This Answer is Correct)

3 . 25

4 . none of these

Q 26 :   Mode depends on change of   **Marks :**   1

1 . origin only

2 . scale only

3 . both origin and scale   ☑ (This Answer is Correct)

4 . none of these

Q 27 :   Mode can be calculated from   **Marks :**   1

1 . ogive

2 . Histogram   ☑ (This Answer is Correct)

3 . step diagram

4 . none of these

Q 28 :   Median depends on change of   **Marks :**   1

1 . both origin and scale   ☑ (This Answer is Correct)

2 . scale only

3 . origin only

4 . none of these

Q 29 :   If the given values of a variable are all equal ,then the harmonic mean will be equal to   **Marks :**   1

1 . 1

2 . 0

3 . that common value ✅ (This Answer is Correct)

4 . none of these

Q 30 : One of the important limitations of statistical tools and techniques is **Marks :** 1

1 . Important principles of statistics are necessary for the administration of a country

2 . statistical laws are true only on the average ✅ (This Answer is Correct)

3 . statistical techniques are necessary for forecasting future

4 . none of these

Q 31 : In nominal data we can find **Marks :** 1

1 . no clear ordering ✅ (This Answer is Correct)

2 . clear ordering

3 . only quantitative character

4 . none of these

Q 32 : The statistical data which have already been collected by some agency and are compiled from that source by the enquirer for his use is called **Marks :** 1

1 . primary data

2 . continuous data

3 . secondary data ✅ (This Answer is Correct)

4 . none of these

Q 33 : A small scale survey is conducted before the main survey and this is called **Marks :** 1

1 . Exploratory survey

2 . Descriptive survey

3 . Pilot survey ✅ (This Answer is Correct)

4 . none of these

Q 34 : An important advantage of interview method is **Marks :** 1

1 . it can be used even if the informants are illiterate ✅ (This Answer is Correct)

2 . It is time consuming

3 . highly expensive method

4 . none of these

Q 35 : Important advantage of direct personal observation method is **Marks :** 1

    1 . this method is not appropiate for a large area

    2 . it is an expensive method

3 . It is possible to collect genuine information   ✅ (This Answer is Correct)

    4 . none of these

Q 36 :   An important disadvantage of direct personal observation method is   **Marks :** 1

1 . It is an expensive method   ✅ (This Answer is Correct)

    2 . there are large amount of non-response

    3 . it is not possible to collect genuine information

    4 . none of these

Q 37 :   Important feature of a good questionnaire is   **Marks :** 1

    1 . it should not be dubious in meaning

    2 . questions should be relevant to the subject

    3 . Multiple choice type questions are preferred

4 . all of the above   ✅ (This Answer is Correct)

Q 38 :   Upper part of the table giving description of different columns is known as   **Marks :** 1

1 . caption   ✅ (This Answer is Correct)

    2 . stub

    3 . source

    4 . footnote

Q 39 :   The part of the table refers to the origin of the available information   **Marks :** 1

    1 . footnote

2 . source   ✅ (This Answer is Correct)

    3 . stub

    4 . none of these

Q 40 :   An important advantage of having tabular form   **Marks :** 1

    1 . it creates long lasting impression

    2 . this mode of presentation is not comprehended by a layman

3 . it enables one to detect errors or omissions in the data   ✅ (This Answer is Correct)

    4 . none of these

Q 41 :   An important disadvantage of diagramatic representation is   **Marks :** 1

1 . it is time consuming

2 . diagram fails to represent details

3 . only limited information can be presented in a diagram

4 . all of the above   ☑ (This Answer is Correct)

Q 42 :   Relative frequency =   **Marks :**   1

1 . absolute frequency / class size

2 . absolute frequency/ total frequency   ☑ (This Answer is Correct)

3 . less than type cumulative frequency / total frequency

4 . none of these

Q 43 :   Class mark=   **Marks :**   1

1 . upper end point of a class

2 . lower end point of a class

3 . the mid value of class interval   ☑ (This Answer is Correct)

4 . none of these

Q 44 :   Frequency Density=   **Marks :**   1

1 . class frequency / class width   ☑ (This Answer is Correct)

2 . less than type cumulative frequency / class width

3 . more than type cumulative frequency/class width

4 . none of these

Q 45 :   Frequency Polygon is necessary to represent   **Marks :**   1

1 . continuous data

2 . discrete data

3 . both   ☑ (This Answer is Correct)

4 . none of these

Q 46 :   Step diagram is needed to represent   **Marks :**   1

1 . continuous data

2 . discrete data   ☑ (This Answer is Correct)

3 . both

4 . none of these

Q 47 :   Important advantage of diagramatic representation is   **Marks :**   1

1 . it is simple to understand

2 . it creates long lasting impression

3 . both 1 and 2 ✅ (This Answer is Correct)

4 . none of these

Q 48 : Qualitative character of data is known as **Marks :** 1

1 . attribute ✅ (This Answer is Correct)

2 . variable

3 . non frequency data

4 . none of these

Q 49 : The values of variable recorded for different points or interval of time for an individual or a population are called **Marks :** 1

1 . spatial series data

2 . frequency data

3 . time series data ✅ (This Answer is Correct)

4 . none of these

Q 50 : The statistical data which are gathered directly from the field of investigation for the desired purpose is known as **Marks :** 1

1 . secondary data

2 . primary data ✅ (This Answer is Correct)

3 . continuous data

4 . none of these

Q 51 : If $Y_i = X_i - C$ then which one of the following is true **Marks :** 1

1 . mean of X= mean of Y + C ✅ (This Answer is Correct)

2 . mean of Y = mean of X + C

3 . mean of X =mean of Y - C

4 . none of these

Q 52 : If each value of a set of obsrvation is p then arithmetic mean is **Marks :** 1

1 . 1

2 . 0

3 . p ✅ (This Answer is Correct)

4 . none of these

Q 53 : The arithmetic mean of $1, 2, 2^2 \ldots, 2^9$ is   **Marks :** 1

1. 102.4
2. 102.3   ✅ (This Answer is Correct)
3. 1024
4. none of these

Q 54 : The Geometric mean of N observations a, ar, ar^2,.......upto n terms is   **Marks :** 1

1. ar^2
2. $ar^{1/2}$
3. $ar^{(n-1)/2}$ ✅ (This Answer is Correct)
4. none of these

Q 55 : Two variables x and u are related as x =1.5 u + 2.5 and u has median 20,find median of x.   **Marks :** 1

1. 32
2. 32.5   ✅ (This Answer is Correct)
3. 35
4. none of these

Q 56 : Find the maximum value of $24x - 8 - 9x^2$ for real x   **Marks :** 1

1. 9
2. 8   ✅ (This Answer is Correct)
3. 2
4. none of these

Q 57 : Find p+q+r . If p, q and r are 3 roots of the equation $x^3 + ax - b = 0$.   **Marks :** 1

1. 1
2. A
3. B/A
4. 0   ✅ (This Answer is Correct)

Q 58 : Find pqr . If p, q and r are 3 roots of the equation $x^3 + ax - b = 0$.   **Marks :** 1

1. b   ✅ (This Answer is Correct)
2. b/a
3. 1
4. 0

Q 59 : Find the remainder when x^5 -1 is divided by 2x+1   **Marks :** 1

1 . 33/32

2 . (-33/32)   ✅ (This Answer is Correct)

3 . 32/33

4 . 0

Q 60 : The mean age of a group of 20 girls is 15 years and that of a group of 25 boys is 24 years. If the two   **Marks :** 1
groups are taken together to form a new group, what is the mean age of this group?

1 . 20 years   ✅ (This Answer is Correct)

2 . 25 years

3 . 30 years

4 . none of these