

RT Held on 21-01-2017 (F/N)
Basic Statistics

Number of Questions – 120

Maximum Marks- 100

1.

The frequency distribution of wages is given below:

Weekly Wages	20-40	40-60	60-80	80-100	100-120	120-140	140-160
Number of Employees	8	12	20	30	40	40	10

The percentage of workers who earned between Rs 80 and Rs 125 is:

- (a) 60%
- (b) 50%
- (c) 40%
- (d) 30%

2.

The following data are given on length (X) in cm and weight (Y) in gm of 6 tubes:

$$\sum_{i=1}^6 X_i = 42, \quad \sum_{i=1}^6 X_i^2 = 444, \quad \sum_{i=1}^6 Y_i = 18, \quad \sum_{i=1}^6 Y_i^2 = 60$$

Which one of the following is correct in respect of above data?

- (a) X is more varying than Y
- (b) Y is more varying than X
- (c) X and Y have the same variance
- (d) X and Y have the same mean

3.

Let X , Y and Z denote the scores of golfers A, B and C respectively, in a match. The following data were obtained from 50 matches:

$$\sum_{i=1}^{50} X_i = \sum_{i=1}^{50} Y_i = \sum_{i=1}^{50} Z_i = 200, \quad \sum_{i=1}^{50} X_i^2 = 900, \quad \sum_{i=1}^{50} Y_i^2 = 1200, \quad \sum_{i=1}^{50} Z_i^2 = 1000$$

The golfer who is most consistent is:

- (a) A
- (b) B
- (c) C
- (d) Cannot be determined

4.

In a 2×2 contingency table if any of the expected cell frequency is strictly less than 5, then in order to use χ^2 test for goodness of fit, we must apply:

- (a) Gauss's correction
- (b) Sheppard's correction
- (c) Yates' correction
- (d) Bessel's correction

5.

Consider the following statements:

1. Karl Pearson's correlation coefficient measures the degree of linear relationship between two variables
2. Karl Pearson's correlation coefficient lies between -1 and 1 including limits
3. Karl Pearson's correlation coefficient is not independent of change of origin and scale

Which of the above statements is/ are correct?

- (a) 1 and 2 only
- (b) 1 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

6.

Consider the following statements:

1. The values of regression coefficients of Y on X and X on Y are 0.96 and 0.79 respectively.
2. Regression coefficients are independent of change of origin but not of scale.
3. Correlation coefficient is the geometric mean between regression coefficients.

Which of the above statements are correct?

- (a) 2 and 3 only
- (b) 1 and 3 only
- (c) 1 and 2 only
- (d) 1, 2 and 3

7.

Consider the following statements:

1. Geometric mean is used to study the relative changes of price level in two time periods.
2. Geometric mean gives more weightage to small items compared to Harmonic mean.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

8.

Consider the following statements:

1. Quantitative data can be measured in ratio scale
2. Categorical data can be measured in either ordinal or interval scale.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

9.

Consider the following data about the classes A, B and C:

Class	Number of Students	Average marks in an Examination	Highest score	Lowest score
A	20	20	22	18
B	25	25	31	23
C	30	30	33	26

If five students are transferred from A to B, then what will happen to the average score of B?

- (a) It will remain constant
- (b) It will definitely decrease
- (c) It will definitely increase
- (d) Cannot say

10.

Consider the following statements:

1. Mean is not amenable to algebraic treatment.
2. Mode is not affected by extreme observations.
3. Median is not amenable to algebraic treatment.

Which of the above statements are correct?

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

11.

The underlying assumptions for the application of student's t-test for the difference of means are:

1. The two samples are random and independent of each other.
2. Population variances are equal and known.
3. Parent population from which the samples have been drawn is uniform.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) 3 only
- (d) 1, 2 and 3

12.

Consider the following statements for a frequency distribution:

1. Mean, Mean deviation and standard deviation have the same unit.
2. $HM \leq GM \leq AM$

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

13.

For a continuous frequency distribution, it was found that mean = 50, mode = 30 and variance = 16.
Consider the following statements:

Statement-1: The larger tail of the distribution lies towards the higher values of the variate.

Statement-2: Karl Pearson's coefficient of skewness is positive.

Which one of the following is true in respect of the above statements?

- (a) Both Statement-1 and Statement-2 are correct and Statement-2 is the correct explanation of Statement-1
- (b) Both Statement-1 and Statement-2 are correct and Statement-2 is NOT the correct explanation of Statement-1
- (c) Statement-1 is correct but Statement-2 is NOT correct
- (d) Statement-1 is NOT correct but Statement-2 is correct

14.

Consider the following data:

x: 5, 4, 3, 2, 1
y: 1, 2, 3, 4, 5

What is the rank correlation coefficient between x and y for the above data?

- (a) 1
- (b) -1
- (c) 0.5
- (d) -0.5

15.

The underlying assumptions for the application of student's t-test for single mean are:

Assumption-1: The parent population from which the sample is drawn is normal

Assumption-2: The sample observations are independent

Assumption-3: The population standard deviation σ is known

Which of the above assumptions are true?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

16.

For a continuous frequency distribution, it is found that mean = 9, variance = 19, $\gamma_1 = 0.7$ and $\gamma_2 = 1$. The nature of the frequency distribution is:

- (a) Symmetric and platykurtic
- (b) Symmetric and leptokurtic
- (c) Negatively skewed and platykurtic
- (d) Positively skewed and leptokurtic

17.

Let X_1 and X_2 be iid standard normal variates and let $Y = X_1^2 + X_2^2$. Then mean and standard deviation of Y are respectively:

- (a) 1 and 2
- (b) 2 and 2
- (c) 2 and 4
- (d) 4 and 4

18.

Consider the following statements:

1. χ^2 is a continuous distribution
2. χ^2 is a symmetric distribution

Which of the above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

19.

Means of two series are m and n . Let each observation of first series be increased by x and each observation of the second series be increased by y . New means of the two series now become p and q . Then consider the following statements:

1. $p : q = m : n$
2. $p + q = m + n + x + y$
3. $p - q = m - n$
4. $(p - x)(q - y) = mn$

Which of the above are correct?

- (a) 1 and 2
- (b) 1 and 3
- (c) 2 and 4
- (d) 2 and 3

20.

Two random samples gave the following results:

Sample Number	Size	Sum of squares of deviation from mean
I	10	108
II	12	44

To test the hypothesis of equality of population variances, the value of test statistic F is:

- (a) 3
- (b) 0.5
- (c) 4
- (d) 0.25

21.

Five soldiers visit a rifle range for two consecutive weeks and their scores were recorded as follows:

Soldier	A	B	C	D	E
First week score	67	24	37	55	63
Second week score	70	38	58	58	56

The appropriate test that should be applied to test if there is any significant difference in their performance based on scores is:

- (a) Z- test for difference of means
- (b) t -test for difference of means with equal variances
- (c) Paired t-test
- (d) t -test for difference of means with unequal variances

22.

The median of the distribution given below is 14.4.

Class interval	0-6	6-12	12-18	18-24	24-30
Frequency	4	x	5	y	1

If the total frequency is 20, then the values of x and y respectively are:

- (a) 2, 4
- (b) 3, 4
- (c) 4, 6
- (d) 5, 6

23.

The following data give the mean and variance of the wages of the men working in three firms A, B and C:

Firm	Number of men	Average wages (Rs)	Variance of Wages
A	20	61	64
B	100	70	81
C	120	80.5	100

The firm that is most consistent is:

- (a) A
- (b) B
- (c) C
- (d) Cannot be determined

24.

It is given that $\bar{X} = 10$, $\bar{Y} = 90$, $\sigma_X = 3$, $\sigma_Y = 12$ and $r_{XY} = 0.8$. Then the regression equation of Y on X is:

- (a) $Y = 3.2X + 58$
- (b) $X = 3.2Y + 58$
- (c) $X = 0.2Y - 8$
- (d) $Y = 0.2X - 8$

25.

Suppose $X = -\frac{1}{18}Y + \lambda$ and $Y = -2X + \mu$ are the lines of regression of X on Y

and Y on X respectively. If $\bar{X} = 2$ and $\bar{Y} = 9$, then the values of λ and μ are respectively:

- (a) 3 and 13
- (b) 2.5 and 3
- (c) 13 and 2.5
- (d) 2.5 and 13

26.

The following data are given for two series:

$$n_1 = 50, n_2 = 50, \bar{X}_1 = 4, \bar{X}_2 = 10, \sigma_{X_1} = 2, \sigma_{X_2} = 4$$

The value of variance of combined series is:

- (a) 14
- (b) 16
- (c) 17
- (d) 19

27.

The first three moments about origin of a frequency distribution are

$$\mu'_1 = \frac{n+1}{2}, \mu'_2 = \frac{(n+1)(2n+1)}{6}, \mu'_3 = \frac{n(n+1)^2}{4}. \text{ Then the distribution is :}$$

- (a) Negatively skewed
- (b) Symmetric
- (c) Positively skewed
- (d) Cannot be determined from the data

28.

It is given that $\sum X = \sum Y = 0$, $\sum X^2 = 36$, $\sum Y^2 = 44$, $\sum XY = 24$ and $n = 8$. Then the value of Karl Pearson's correlation coefficient is:

- (a) 0.4
- (b) 0.5
- (c) 0.6
- (d) 0.7

29.

For a continuous frequency distribution, consider the following statements:

1. Median can be located graphically using less than cumulative frequency curve.
2. Mode can be located graphically using the histogram.

Which of the above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

30.

If $Y = 3.2X + 58$ and $X = 0.2Y - 8$ are the lines of regression of Y on X and X on Y respectively, then the value of correlation coefficient between X and Y is:

- (a) 0.6
- (b) 0.7
- (c) 0.8
- (d) 0.9

31.

The mean of 5 observations is 5 and variance is 4. If three of the five observations are 5, 2 and 8, then the other two observations are:

- (a) 5, 5
- (b) 4, 6
- (c) 3, 7
- (d) 8, 2

32.

Which of the following is true for all sets of data?

- (a) Mean = Median = Mode
- (b) Mean \geq Median \geq Mode
- (c) Mean \leq Median \leq Mode
- (d) None of these

33.

If in a moderately skewed distribution the values of mean and mode are 15λ and 12λ respectively, then the value of median is approximately:

- (a) 12λ
- (b) 13λ
- (c) 14λ
- (d) 15λ

34.

The ages of a family of 7 members are 2, 5, 12, 18, 38, 40 and 60 years. After 5 years a new member, aged X years, is added. It is noted that the average age now increases only by 1.5 years. The value of X (in years) will be:

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

35.

The average turnover of 200 small enterprises is Rs.50 crores and average turnover of 300 medium enterprises is M. If the combined mean of all the enterprises is Rs.56 crores, then the value of M is:

- (a) Rs.57 crores
- (b) Rs.58 crores
- (c) Rs.59 crores
- (d) Rs.60 crores

36.

For a frequency distribution, it is given that mean = 120, mode = 123 and Karl Pearson's coefficient of skewness is -0.3. What is the value of coefficient of variation?

- (a) 8%
- (b) 8.33%
- (c) 12%
- (d) 12.33%

37.

Potatoes are sold at the rates of 10, 12 and 15 rupees per kg in three different weeks. Assuming that equal amount is spent on potatoes in each week, the average price in rupees per week is:

- (a) 10
- (b) 12
- (c) 12.33
- (d) 15

38.

The first three moments of the distribution about the value 2 are 0.5, 15 and 62 respectively. The values of first three moments about the mean are respectively:

- (a) 0, 14.75, 39.75
- (b) 2.5, 21, 180
- (c) 0, 14.75, 49.75
- (d) 2.5, 21, 166

39.

For a normal distribution, the ratio of Standard deviation : Mean deviation : Quartile deviation is:

- (a) 10 : 12 : 15
- (b) 12 : 15 : 10
- (c) 15 : 12 : 10
- (d) 12 : 10 : 15

40.

The data on STD codes of cities can be measured in:

- (a) Ratio scale
- (b) Interval scale
- (c) Ordinal scale
- (d) Nominal scale

41.

The median of a set of 75 observations was calculated as 29. It was later discovered that one observation was wrongly read as 43 instead of correct value 53. The correct value of the median is:

- (a) 29
- (b) 39
- (c) 43
- (d) 53

42.

From a population of 6 individuals one has to draw a simple random sample of size 2 without replacement. What is the number of possible samples that can be drawn?

- (a) 36
- (b) 12
- (c) 15
- (d) 4

43.

Consider the following statements regarding arithmetic mean and median of a positively skewed distribution:

1. If the mean is 45, then the median cannot be 50.
2. The mean absolute deviation is the least when computed from the mean.
3. If the largest value in the distribution is increased by 5, then the median also increases by 5.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 1 and 2
- (c) 2 only
- (d) 3 only

44.

Two independent groups of 6 children were tested to find out how many words they could repeat from memory after hearing 10 words. The results were as follows:

Group	Number of words repeated from memory					
A	8	6	5	7	6	8
B	10	6	7	8	6	9

The most appropriate test that should be applied to test whether there is any significant difference between the average performance of the two groups A and B is:

- (a) Z-test
- (b) Two sample t-test
- (c) Paired t-test
- (d) Chi square test

45.

To apply χ^2 test for goodness of fit, the observed and the expected frequencies are tabulated as below:

Observed frequency	275	72	30	7	5	2	1
Expected frequency	242	116	28	4	1	1	0

The degrees of freedom for applying the χ^2 test is:

- (a) 2
- (b) 3
- (c) 4
- (d) 5

46.

For an optimum allocation in stratified sampling, consider the following statements:

1. In a stratum, a larger sample is selected if the stratum is larger.
2. A smaller sample is selected from a stratum if the stratum is less variable internally.

Which of above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

47.

The standard deviation of the waiting time of the 25 persons waiting in an ATM queue was found to be 4 hours. The standard error of the estimator of the population mean for a simple random sample with replacement of size 25 persons will be:

- (a) 48 minutes
- (b) 60 minutes
- (c) 9.6 minutes
- (d) 40 minutes

48.

For 2000 patients, a simple random sample of 400 patients was selected. Out of these selected patients, 80 patients responded to a particular drug. The standard error of the proportion of the responded patients will be:

- (a) 0.16
- (b) 0.02
- (c) 0.50
- (d) 0.40

49.

For estimating the population proportion P in a class of a population having 500 units, the variance of the estimator p of P based on sample size 50 is:

- (a) $10PQ/499$
- (b) $PQ/499$
- (c) $9PQ/499$
- (d) $499PQ/22500$

50.

From a population of size 5, the total number of possible sample of size 3 using Simple Random Sample With Replacement is:

- (a) 15
- (b) 60
- (c) 279
- (d) 125

51.

The standard deviation of the marks obtained in mathematics by 109 students is found to be 12. The standard error of the estimator of the population mean for a random sample of size 9 using SRSWOR is:

- (a) 3.58
- (b) 3.45
- (c) 3.85
- (d) 4.00

52.

For stratified random sampling, consider the following statements:

1. Units within each strata are as heterogeneous as possible
2. The strata mean are as homogeneous as possible

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

53.

The theory of sampling is based on which of the following important principles?

1. Statistical regularity
2. Validity
3. Optimization

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

54.

Consider the following sampling procedures:

1. PPS
2. SRSWR
3. SRSWOR

In which of the above sampling procedures each member of the population gets a definite probability of being included in the sample?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

55.

A population of size 800 is divided into 3 strata. Following information is obtained:

Number	Strata-I	Strata-II	Strata-III
Size	200	300	300
Population root mean square	6	8	12

A stratified random sample of size 120 is to be drawn from the population. The sizes of the samples from the three strata under proportional allocation scheme are respectively:

- (a) 30, 40, 50
- (b) 30, 45, 45
- (c) 20, 40, 60
- (d) 50, 40, 30

56.

A population of size 800 is divided into 3 strata. Following information is obtained:

Number	Strata-I	Strata-II	Strata-III
Size	200	300	300
Population root mean square	6	8	12

A stratified random sample of size 120 is to be drawn from the population. The sizes of the samples from the three strata under Neyman's optimum allocation scheme are respectively:

- (a) 30, 45, 45
- (b) 20, 40, 60
- (c) 20, 50, 50
- (d) 20, 45, 55

57.

Efficiency of the sample survey technique is measured by the inverse of the:

- (a) Population variance
- (b) Sample variance
- (c) Sampling variance of the estimator
- (d) Sample mean

58.

Every unit of the population is enumerated in :

1. Sample survey
2. Census
3. Design of experiment

Which of the above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) 1 and 2 only
- (d) 1, 2 and 3

59.

The following information is obtained for a population of size 100 divided into two strata and a stratified random sample of size 30 was selected.

Number	I	II
Population size	40	60
Sample size(equal)	15	15
Sample size(proportion)	12	18
Strata population variances	4200	250

For this data, consider the following statements:

1. The variance under equal allocation is more than that of proportional allocation
2. Stratified sampling with equal allocation is more precise than that of proportional allocation

Which of the statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

60.

A population of size 5000 is divided into three strata in the ratio 2 : 5 : 3 with standard errors 5, 8 and 20 respectively. A sample of 150 units is to be selected from the population. Match List-I(Sample units from strata 1, 2 and 3 respectively) with List-II (methods of allocation) and select the correct answer using the code given below the lists:

List-I

- A. 50, 50 and 50
- B. 75, 30 and 45
- C. 30, 75 and 45

List-II

1. Optimum
2. Equal
3. Proportional

Code:

- (a) A/2, B/3, C/1
- (b) A/1, B/2, C/3
- (c) A/2, B/1, C/3
- (d) A/1, B/3, C/2

61.

Which fertility rate indicates how many future mothers would be born to present mothers according to the current level of fertility and mortality?

- (a) Total Fertility Rate
- (b) General Fertility Rate
- (c) Gross Reproduction Rate
- (d) Net Reproduction Rate

62.

The difference in the mortality experiences of two communities can be done by comparing the values of:

- (a) Crude Death Rate
- (b) Age Specific Death Rate
- (c) Standardized Death Rate
- (d) Infant Mortality Rate

63.

In the time period 1981-1990, Crude Birth Rate is 40.9 and Vital Index is 186. What is the approximate value of Crude Death Rate?

- (a) 18
- (b) 20
- (c) 22
- (d) 24

64.

Which one of the following is dependent on the unit of measurement?

- (a) Crude Birth Rate
- (b) Correlation coefficient
- (c) Total Fertility Rate
- (d) Standard Deviation

65.

The standardised death rate of Region A was found to be 6.6. It implies that on the average 66 deaths occur per:

- (a) 100 persons of A
- (b) 1000 persons of A
- (c) 10000 persons of A
- (d) 100000 persons of A

66.

In 1993, the sex ratio at birth was 105 males to 100 females in India. Total Fertility Rate was 3.54. The value of Gross Reproduction Rate is approximately:

- (a) 1.73
- (b) 1.81
- (c) 3.37
- (d) 3.85

67.

The Mortality Rate involving still births and infant deaths within first week is:

- (a) Infant Mortality Rate
- (b) Neonatal Mortality Rate
- (c) Post Neonatal Mortality Rate
- (d) Perinatal Mortality Rate

68.

The number of live births per 1000 married female in the reproductive age group (15-49 years) gives:

- (a) General Fertility Rate
- (b) Total Fertility Rate
- (c) Age Specific Marital Fertility Rate
- (d) General Marital Fertility Rate

69.

Adoption of PLCN in Census of India 2001 means:

- (a) Population Location Code Number
- (b) Primary Location Code Number
- (c) Permanent Location Code number
- (d) Provisional Location Code Number

70.

In a life table, $p_{80} = 0.9$. The value of Age Specific Death Rate at age 80 is:

- (a) 0.102
- (b) 0.103
- (c) 0.104
- (d) 0.105

71.

The sample design adopted for Sample Registration System (SRS) in India is:

- (a) Simple random sample without replacement
- (b) Simple random sample with replacement
- (c) Uni-stage stratified random sample without replacement
- (d) Uni-stage stratified random sample with replacement

72.

The difference between language and mother tongue in Census analysis is made on the basis of which of the following?

1. Phonological level
2. Morphological level
3. Syntactic level

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

73.

In 2001 Census of India 'Census Moment' was 00.00 hours of:

- (a) First January 2001
- (b) First February 2001
- (c) First March 2001
- (d) First April 2001

74.

Which method is adopted for Census in India?

- (a) Canvasser method only
- (b) Householder method only
- (c) Both Canvasser and Householder methods
- (d) Neither Canvasser nor Householder methods

75.

In 2001 Census, the technology/technique that is used to convert the information recorded in Census schedule to digital form is:

- (a) IEE
- (b) ICR
- (c) ISR
- (d) ICE

76.

In a life table, $l_{61} = 39618$ and $l_{62} = 37786$. The Age Specific Death Rate at age 61 is:

- (a) 0.043
- (b) 0.045
- (c) 0.047
- (d) 0.049

77.

Data collected in census is analysed for the study of which of the following?

1. Trends in fertility and child mortality at district level
2. Appraisal of age data
3. Estimation of mean and median age at marriage

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

78.

Components of Infant Mortality are:

- (a) Neonatal mortality and Postneonatal mortality
- (b) Early neonatal and Perinatal mortality
- (c) Late neonatal and Perinatal mortality
- (d) Neonatal mortality and Perinatal mortality

79.

Which survey in India follows Dual Record System?

- (a) NSSO survey
- (b) NFHS survey
- (c) DLHS survey
- (d) SRS in ORGI survey

80.

What is the implication on the sample size in a survey if Percentage Relative Standard Error is decreasing?

- (a) Sample size is decreasing
- (b) Sample size is increasing
- (c) Sample size remains constant
- (d) Cannot be determined

81.

Consider the following statements:

1. Before 1941 Census of India, the system of enumeration was de-jure.
2. From 1941 Census of India, the de-facto system of enumeration was adopted

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

82.

Indian Census is based on:

- (a) de-facto method of enumeration
- (b) de-jure method of enumeration
- (c) Both de-facto and de-jure methods of enumeration
- (d) Extended de-facto method

83.

In a life table, the number of persons living at age 63 is 39000 and Age Specific Death Rate at age 63 is 0.05, then the number of persons living at age 64 is approximately:

- (a) 37098
- (b) 37198
- (c) 37298
- (d) 37398

84.

In which Census of India, the sampling was adopted for the first time at the enumeration stage?

- (a) 1971
- (b) 1981
- (c) 1991
- (d) 2001

85.

Consider the following:

In population studies, a population distribution is said to be skewed if:

1. Mean, Median and mode fall at different points
2. Quartiles are not equidistant from median
3. The curve drawn with the help of given data is not symmetrical but stretched more to one side than to the other

Which of the above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

86.

In Indian Census, migration data are collected based:

- (a) On the place of birth
- (b) On the place of last residence
- (c) On both the place of birth and the place of last residence
- (d) Neither on the place of birth nor on the place of last residence

87.

Which one of the following is NOT true for Gross Reproduction Rate (GRR)?

- (a) It is a modified form of Total Fertility Rate(TFR)
- (b) It exhibits the rate at which mothers would be replaced by daughters
- (c) GRR is the TFR multiplied by the ratio of number of female births to number of male births
- (d) GRR is always greater than or equal to Net Reproduction Rate(NRR)

88.

Consider the following statements regarding Net Reproduction Rate(NRR):

1. NRR should not be used for forecasting future population changes
2. NRR takes into account the factor of migration
3. NRR is an excellent gauge for measuring the balance of births and deaths

Which of the above statements are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

89.

If N_1 is the number of infant deaths of 7 days to strictly less than 29 days in a year and N_2 is the

number of live births in a year, then $Y = \frac{N_1}{N_2} \times 1000$ gives:

- (a) Early Neonatal mortality rate
- (b) Late Neonatal mortality rate
- (c) Post Neonatal mortality rate
- (d) None of these

90.

Consider the following statements:

1. Stable population is always stationary population
2. In a stable population, the mortality and fertility rates are constant at each stage
3. A stationary population is of constant size over time

Which of the above statements are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

91.

Consider the following statements in respect of Census analysis:

1. Hindi is a language and can also be treated as a mother tongue.
2. Bhojpuri is a language and can also be treated as a mother tongue.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

92.

Consider the following statements in respect of Early Neonatal Mortality Rate = $\frac{N_1}{N_2} \times 1000$:

1. N_1 represents the number of infant deaths of strictly less than 29 days during the year
2. N_2 represents the number of live births during the year

Which of the above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

93.

Consider the following data:

Age group of child bearing females	Number of females	Number of births
15-24	32000	2400
25-34	31000	3100
35-44	30000	1200

Assuming that proportion of female births is 45%, the value of Gross Reproduction Rate (GRR) is approximately:

- (a) 0.77
- (b) 0.87
- (c) 0.97
- (d) 1.67

94.

To explain a population distribution, one should refer to:

1. Measures of central tendency
2. Measures of dispersion
3. Measures of skewness and kurtosis

Which of the above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

95.

In how many languages are Population Census Schedule canvassed in India?

- (a) 22 languages
- (b) 16 languages
- (c) 14 languages
- (d) 12 languages

96.

Ex-officio Census Commissioner is:

- (a) Secretary, Ministry of Home Affairs, Government of India
- (b) Director of National Statistical Commission
- (c) Registrar General of India
- (d) Chairman of the Indian Economic Society

97.

Consider the following data:

Age group of child bearing females	15-19	20-34	35-49
Number of females	16000	48000	35000
Number of births	240	5472	1330

The value of General Fertility Rate is approximately:

- (a) 69 per thousand
- (b) 71 per thousand
- (c) 73 per thousand
- (d) 75 per thousand

98.

Consider the following data:

Age group of child bearing females	15-19	20-34	35-49
Number of females	16000	48000	35000
Number of births	240	5472	1330

The value of Age Specific Fertility Rate for the age group 20-34 is:

- (a) 112
- (b) 114
- (c) 116
- (d) 118

99.

It is given in Life Table that the complete expectation of life at ages 30 and 31 for a group are 21.4 and 20.9 respectively. The number of persons living at the age of 30 is 40,000. Then the number of persons who attained the age 31 is approximately:

- (a) 33000
- (b) 35000
- (c) 37000
- (d) 39000

100.

It is given in life table that the complete expectation of life at ages 30 and 31 for a group are 21.4 and 20.9 respectively. The number of persons living at the age of 30 is 40,000. Then the number of persons who will die without attaining the age 31 is approximately:

- (a) 7000
- (b) 1000
- (c) 3000
- (d) 5000

101.

A software used to access the internet and www is known as:

- (a) Web Browser
- (b) Web Page
- (c) Web Server
- (d) Protocol

102.

The number system generally used by the computer system is:

- (a) Decimal number system
- (b) Octal number system
- (c) Hexadecimal number system
- (d) Binary number system

103.

Easy communication with each other within the organisation is possible in:

- (a) Internet
- (b) Intranet
- (c) Online chat
- (d) Usenet

104.

Which of the following is used as unit for printer speed?

- (a) dpi
- (b) cpi
- (c) ppm
- (d) lpi

105.

Which of the following are magnetic disks?

1. Hard disk
2. Compact disk
3. Digital video disc

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

106.

Consider the following statements:

1. A computer language is high level if it is closer to human language than machine language
2. A compiler can detect syntax errors but not logical errors

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

107.

A non-volatile memory that is used to store data permanently is called:

- (a) Primary memory
- (b) RAM
- (c) ROM
- (d) Static RAM

108.

How many bits (ignoring leading 0's) does a decimal number 35 have in binary system?

- (a) 5
- (b) 6
- (c) 7
- (d) 4

109.

A website's main page is called its:

- (a) Home page
- (b) Browser page
- (c) Search place
- (d) Book mark

110.

If a computer on the network shares resources for others to use, it is called:

- (a) Server
- (b) Client
- (c) Peer
- (d) Mainframe

111.

Which one of the following is used to browse and search for information on the internet?

- (a) Outlook
- (b) Opera
- (c) FTP
- (d) TCP/IP

112.

An e-mail account includes a storage area, often called a(an):

- (a) Attachment
- (b) Hyperlink
- (c) Mail box
- (d) IP address

113.

Consider the following statements:

1. RJ45 is used for LAN connection.
2. A browser can read both HTML and PDF by default.
3. An internal hard disk runs at 8000 RPM or faster.
4. 4X, 8X, 6X are writing speeds for optical media

Which of the above are correct?

- (a) 1 and 2
- (b) 2 and 3
- (c) 3 and 4
- (d) 1 and 4

114.

The Linux operating system is fast gaining in popularity. Which of the following are the most important reasons?

1. It is easier to write applications.
2. It is user-friendly.
3. It can be adapted to a wide class of processors.
4. It is more secure against viruses.

Select the correct answer using the code given below:

- (a) 3 and 4
- (b) 1 and 3
- (c) 1 and 4
- (d) 1 and 2

115.

Which of the following statements is/are correct?

1. `==` is a relational operator.
2. The `%` operator applies only to integers.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

116.

Which of the following statements are correct?

1. Ethernet card is used for LAN connection.
2. Subnet mask controls the range of IP addresses in a network.
3. ADSL modem is used for broadband.
4. DVD is an example of optical media.

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 2, 3 and 4 only
- (c) 1 and 3 only
- (d) None of these

117.

A sequential file can be opened in:

- (a) Read mode only
- (b) Read and append modes only
- (c) Write and append modes only
- (d) Read, write and append modes

118.

A device driver acts as an interface between:

- (a) End-user and I/O device
- (b) Application software and I/O device
- (c) Application software and Operating system
- (d) Operating system and I/O device

119.

Which virus spreads in application software?

- (a) Boot virus
- (b) Macro virus
- (c) File virus
- (d) Antivirus

120.

Which of the following is used to move the cursor on the screen?

- (a) Arrow keys
- (b) Enter
- (c) Shift
- (d) Control