1. A sample consists of
   (a) All units of the population
   (b) 5% units of the population
   (c) 10% units of the population
   (d) Any fraction of the population

2. Sampling is used in the situations
   (a) Blood test of the patients
   (b) Cooking rice in an utensil
   (c) Purchase of food commodity from shopkeeper
   (d) All the above
3. The number of possible samples of size n out of N population size in SRSWOR is equal to
   (a) Nc_n **answer is (a)**
   (b) N^n
   (c) (N-n)/N
   (d) n/N
4. The number of possible samples of size n out of N population size in SRSWR is equal to

   (a) Nc_n

   (b)**N^n**

   (c) (N-n)/N

   (e) n/N
5. The number of possible samples of size 2 out of 5 population size in SRSWOR is equal to
   (a) 10
   (b) 4
   (c) 2

(d) 12

6. The number of possible samples of size 2 out of 5 population size in SRSWR is equal to

(a) 25

(b) 20

(c) 2

(d) 12

7. Probability of a drawing unit at each subsequent draw remains same in

(a) SRSWOR
(b) SRSWR
(c) Both (a) &(b)
(d) None

8. The sampling fraction in usual notation is expressed as

(a) n/N
(b) N/n
(c) 1-n/N
(d) None.

9. The finite population correction in usual notation is expressed as

(a) (N-n)/N
(b) 1-(n/N)
(c) Both(a)&(b)
(d) None

10. A selection procedure of sampling having no involvement of probability is known as

(a) SRSWOR
(b) Purposive sampling
(c) SRSWR
(d) None

11. For gathering information on rare events, sampling is used

(a) SRSWOR
(b) Stratified random sampling
(c) Inverse sampling
(d) None

12. If a larger units have more probability of their inclusion in the sample, the sampling is known as

(a) SRSWOR
(b) PPS sampling

(c) Stratified random sampling
(d) None

13. Simple random samples can be drawn with of help of
    (a) Random numbers table
    (b) Chit Method
    (c) Roulette wheel
    (d) All the above
14. Sampling frame is a list of
    (a) A list of units of a population
    (b) A list of random numbers
    (c) A list of natural numbers
    (d) None
15. In SRSWR, the same sampling unit may be included in the sample
    (a) Only once
    (b) Two times
    (c) More than once
    (d) None
16. The discrepancies between the estimate and the population parameter is known as
    (a) Sampling error
    (b) Non-sampling error
    (c) Formula error
    (d) None
17. The error in a survey other than sampling error is known as
    (a) Sampling error
    (b) Non-sampling error
    (c) Formula error
    (d) None
18. A function of sample observations is known as
    (a) Statistic
    (b) Estimator
    (c) Both (a)&(b)
    (d) None
19. If the sample sizes are large from the population, then which error will contribute more errors
    (a) Sampling error
    (b) Non-sampling error
    (c) Both(a)&(b)
    (d) None

35. In case of iniverse sampling, the proportion p of m units of interest contained in a sample of n units is equal to (a) m/n (b)(m-1)/n (c) **(m-1)/(n-1)** (d) (m-1)/(n+1)
36. If the respondents do not provide the required information to the researcher, then it is known as (a) non-sampling error(b) **the problem of non-response** (c) both (a) &(b) (d) none
37. The errors falling under faulty planning of survey, it is called (a) **non-sampling errors** (b) non-response errors (c) Sampling errors (d) Absolute error
38. If there is a certain number of very high values in the sample, it is preferable to compute (a) **Standard error** (b) Standard deviation (c) variance (d) all the above.
39. For estimating the population mean T,let T1 be the sample mean under SRSWOR and T2 sample mean under SRSWR, then which relationship is true (a) $Var(T_1) < Var(T_2)$ (b) $Var(T_1) > Var(T_2)$ (c) **$Var(T_1) \leq Var(T_2)$** (d) none
40. The magnitude of the standard error of an estimate is an index of its (a) accuracy (b) **precision** (c) efficiency (d) none
41. Which of the following statement is true (a) population mean increases with increase in sample size (b) population mean decreases with increase in sample size(c) population mean decreases with decrease in sample size(d) **population mean is a constant value.**
42. A sample of 25 units from a population with standard deviation10 results into a total score of 450. Then the mean of sampling distribution is equal to (a) 45(b) **18** (c) 50 (d) none
43. A population is perfectly homogeneous with respect to a characteristic, what size of sample would you need (a) no sample (b) a large sample (c) a small sample (d**) a single sample**.

44. A sample constant representing a population parameter is called **estimate.**
45. An estimator Tn which is most concentrated to the parameter θ is called **best estimator**
46. If we have purposive sample, estimation is **not possible**.
47. Estimation is possible only in case of **random sample.**
48. An estimator itself a **random variable**.
49. A value of an estimator is called an **estimate.**
50. If the value of an estimator Tn is equal to the parameter θ, then Tn is called **unbiased estimator** of the parameter θ.
51. Sampling is useful in **many** situations.
52. In a hypothetical population , all sampling units are **imagined.**
53. If the number of units in a population is limited, it is called **finite population**.

20. If the sample sizes are large from the population, then which error will contribute less errors
    (a) Sampling error
    (b) Non-sampling error
    (c) Both (a)&(b)
    (d) None
21. Simple random sample can be drawn with the help of (a)random number tables(b)Chit method (c) roulette wheel (d) **all the above**
22. If each and every unit of a population has an equal chance of being included in the sample, it is called(a) restricted sampling (b) **unrestricted sampling** (c) purposive sampling (d) subjective sampling
23. If the observations recorded on five sampled items are 3,4,5,6,7,then sample variance is equal to (a)0 (b) 1(c)2 (d) **2.5**
24. If all the observations in a set of observations are the same, then variance of set of values is (a) **0** (b) 2 (c) infinite (d) none
25. If the sample values are 1,3,5,7,9 then S.E. of sample mean is (a) 2 (b) $\sqrt{2}$ (c) 3 (d) $\sqrt{3}$ *the answer is* (b)
26. As a normal practice sampling fraction is considered to be negligible if it is (a) more than 5%(b) **less than≤ 5%** (c) More than 10% (d) none
27. Systematic sampling is used when (a) when data are on cards (b) when the items are in row (c) when the items are given in a sequential order (d) **all the above**
28. If the population units N is multiple of n and k, then we use (a) **linear systematic sampling** (b) circular systematic sampling (c) random systematic sampling (d) all the above
29. Circular systematic sampling is used when (a) N is a whole number (b) **N is not divisible by n** (c) N is a multiple of n (d) All the above.
30. Problem of non-response has (a) no solution (b) **can be solved** (c) no meaning (d) none
31. If sample sizes increase, then sampling error will (a) increase (b) **decrease** (c) both (a) &(b) (d) none
32. If sample sizes increase, then non-sampling error will (a) **increase** (b) decrease (c) both (a) &(b) (d) none
33. A population is divided into clusters and it has been found that all the units within a cluster are same. In this situation which sampling will be adopted (a) SRSWOR (b) **Stratified random sampling** (c) Cluster sampling (d) Systematic sampling
34. A population N is divided into k strata. A sample of size n is to be chosen and Ni is the size of the ith stratum. Then sample size n as per proportional allocation is given by (a) ni=nN (b) **ni/Ni=n/N** (c) niNi=nN (d) none

54. If the number of units in a population is unlimited, it is called **infinite population**.
55. If all the units of a population are surveyed, it is called **complete enumeration**.
56. The errors other than sampling errors is called **non sampling errors**.
57. The discrepancy between parameter and its estimate due to sampling process is known as **sampling errors.**
58. Any population constants is known as **parameter.**
59. A function based on sample values for estimating a parameter is called an **estimator.**
60. The specific value of an estimator is called an **estimate.**
61. Standard deviation of all possible estimates from sample of fixed size is called **standard error.**
62. Standard error of sample mean based on n sizes with standard deviation s is known as $s/\sqrt{n}$.
63. The list of all items of a population is known as **sampling frame.**
64. Another name of population is **universe.**
65. Number of possible samples of size n out of N using SRSWOR is $N c_n$
66. Probability of selection of any one sample out of $N c_n$ is equal to $1/ N c_n$
67. Number of possible samples of size n out of N using SRSWR is N^n.
68. Under SRSWOR, the same item can occur **more than once**.
69. The sampling procedure in which the population is divided into homogeneous groups and sample drawn from each group is called **stratified random sampling.**
70. Stratified random sampling is useful when population is **heterogeneous.**
71. Stratification is done with respect to certain **characteristics.**
72. Deciding the sample size for each stratum is known as **allocation problem**.
73. If the sample size of each stratum is in proportion to stratum size, it is called **proportional allocation.**
74. Stratified random sampling falls under the category of **restricted sampling.**
75. More heterogeneous is the population, larger **sample sizes** are required.
76. In usual notation (N-n)/N is known as **finite population correction**.
77. In usual notation n/N is called **sampling fraction**.
78. For a high precision of estimates, **larger samples** are required.
79. Estimators and estimates are **different.**
80. Determination of sample sizes for each stratum subject to the cost constrained is called **optimum allocation**.
81. Optimum allocation is also known as **Neyman allocation**.
82. Double sampling is termed as **two phase sampling.**
83. Cluster sampling ordinarily leads to the loss of **precision.**
84. Cluster sampling helps to reduce **cost of survey**.

85. Larger the cluster size, **less efficient** it is relative to the element as sampling unit.
86. Two stage sampling is less efficient rather than that of **single stage sampling**.
87. A sampling procedure in which units are selected with chance of selection in proportion to some measure of their size is known as **PPS sampling**.

Write three –four lines in each of the following points:

(i) Objectives
(ii) Data to be gathered
(iii) Population under investigation
(iv) Sampling frame
(v) Methods of collecting data
(vi) Organization and supervision of field work
(vii) Tabulation of data
(viii) Analysis of data
(ix) Precision
(x) Writing reports and conclusions