

1. The shape of standard normal variate depends upon

- 1. Mean
- 2. Standard deviation
- 3. Quartile deviation
- 4. Mean deviation

✓ 1. Both 1 and 2

- 2. Both 2 and 3
- 3. 1, 2 and 3
- 4. 2, 3 and 4

2. Match the following in List - I and List - II and answer from the code given below

- (a) Sampling distribution → (i) Poisson distribution
- (b) Discrete distribution → (ii) Chi-Square (χ^2) distribution
- (c) Measures of central tendency → (iii) Non - probability based sampling
- (d) Purposive sampling → (iv) Mode

Code :

- (a) (b) (c) (d)
- (1) (i) (ii) (iii) (iv)
- (2) (iii) (i) (ii) (iv)

✓ 3. (ii) (i) (iv) (iii) ✓

3. In quantitative research paradigm which of the following sampling methods are given preference? Choose the correct option.

- ✓ A. Simple random sampling
- ✓ B. Stratified sampling
- ✓ C. Quota sampling
- ✓ D. Snowball sampling
- ✓ E. Systematic sampling

- a) A B C X
- b) A B E ✓
- c) B C D X
- d) C D E X

Choose the correct answer from the options given below.

4. Which of the following is correct?

- 1. Large sample, $n > 30$ ✓
- 2. Small sample, $n < 20$ ✗
- 3. Probability of type I error is also called significance level of least α ✓
- 4. Accepting the null hypothesis, when it is false is called type II error. ✓

α TYPE I.

- 1. 1, 2 and 3
- 2. 2, 3 and 4
- ✓ 3. 1, 3 and 4 ✓
- 4. All of these

5. Which of the following are CORRECT?

- ✓ A. If observations are selected purposively, it is called a method of non-random sampling
- ✓ B. If observations are selected in an ad-hoc manner, it is called a method of non-random sampling
- C. If observations are selected in a systematic manner it is called a method of non-random sampling
- ✓ D. If observations are selected on the basis of judgment, it is called a method of non-random sampling

particular or specific or "for this" reason.

Choose the correct option:

✓ ABD, AXC, BCD, DAX

6. In a college there are 1200 students among them 400 from humanities 500 from Science and 300 from commerce stream. which of the following will be the most appropriate sampling method?

- (1) Simple random sampling
- (2) Cluster sampling
- ✓ (3) Stratified random sampling ✓

- (2) Cluster sampling
- (3) Stratified random sampling
- (4) Systematic sampling

7. Match the items in List-I and List-II and answer from the codes given below :

- (a) Standard Deviation (i) Positively skewed distribution
 (b) Stratified Random Sampling (ii) Analysis of attributes
 (c) Coefficient of Association (iii) Measure of dispersion
 (d) Mean > Mode (iv) Probability based sampling

Codes :

- (a) (b) (c) (d)
- (1) (iv) (ii) (iii) (i)
- (2) (i) (ii) (iii) (iv)
- (3) (iv) (iii) (ii) (i)

(3) (iv) (iii) (ii) (i)

Given the following information match the item in List - I with List - II :

- | | |
|---|--|
| <p>3. a. Rejecting H_0, if it is true</p> <p>1. b. Accepting H_0, if it is false</p> <p>power α 4. c. Probability of rejecting H_0, when it is false</p> <p>2 d. Measuring sampling variability due to</p> | <p>1. β error</p> <p>2. Standard error</p> <p>3. α error</p> <p>4. $1 - \beta$ error</p> |
|---|--|

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

13. In a multiple linear regression with independent variables, the overall regression's significance is to be tested. Which test would be used?

- 1. Z test
- 2. F test
- 3. Chi-square test
- 4. t-test

15. Match the following.

A. Contingency table	1. Stationarity
B. Unit root test	2. Causality
C. Fisher's test	3. Chi-square test
D. Granger test	4. Test of significance of overall regression

16. If two events A and B are mutually exclusive then which one of the following is correct ?

- (1) $P(A+B) = P(A) + P(B)$
- (2) $P(AB) = P(A) \cdot P(B)$
- (3) $P(AB) = P(A) / P(B)$
- (4) $P(A/B) = P(A) - P(B)$

mutually exclusive events
 $P(A \cup B) \text{ or } P(A+B) = P(A) + P(B)$
 $P(A \cap B) = 0$
 Two events cannot occur simultaneously.

17. The area between -3σ and $+3\sigma$ under standard normal curve is

- (1) 1
- (2) 0.9973
- (3) 0.95
- (4) 0.6826

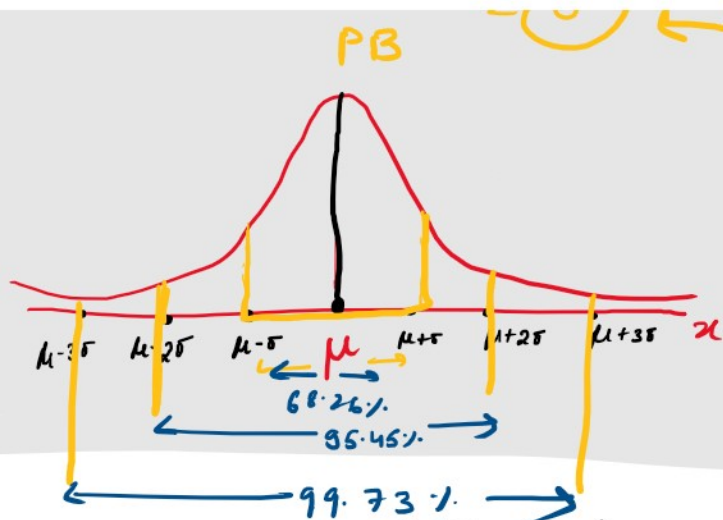
$$P(A|B) = \frac{P(A \cap B)}{P(B)} = 0$$

- (3) 0.95
 (4) 0.6826

18. In a two-variable regression Y is dependent variable and X is independent variable. If the correlation coefficient between Y and X is 0.7, then which one of the following result is correct?

- (1) 7% variations in Y are explained by X.
 (2) 70% variations in Y are explained by X.
 (3) 49% variation in Y are explained by X.
 (4) 0.7% variations in Y are explained by X.

$r_{xy} = 0.7$
 $r^2 = 0.49$



- * Fisher's method of constructing index is called 'ideal' because
1. It is based on GM which is theoretically considered to be the best average for constructing index numbers.
 2. It satisfies both the time reversal and factor reversal tests.
 3. It takes into account both current and base year.
 4. It is free from bias.

Choose the correct option:

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

Q) Assertion (A): GDP does not exhibit the structure of the product.

Reason (R): If the increase in GDP is mainly due to increased production of war equipment and ammunition, then such an increase cannot improve welfare in economy.

1. Both A and R are true.
2. Both A and R are true but R is not the correct explanation of A.
3. A is true but R is false.

correct explanation of π

- 3. A is true but R is false.
- 4. A is false but R is true.

Q 3 Identify the **Correct pair**

- | | | | |
|----|---|---|---|
| | A | | B |
| 1. | Reduction in domestic currency by the govt. | → | Devaluation ✓ |
| 2. | ... through market force | → | Appreciation Depreciation |
| 3. | Increase in value of currency through govt | → | Depreciation Revaluation |
| 4. | ... Through market force | → | Revaluation Appreciation |