



# MATHS

## BOOKS - UNITED BOOK HOUSE

### MODEL QUESTION PAPERS SET-04

#### Exercise

1. Choose the correct alternative : [MCQ]

Correlation coefficient lies between-

A.  $(1, 0)$

B.  $(-1, 0)$

C.  $\pm 1$

D. None of these.

**Answer:**



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2. Choose the correct alternative : [MCQ] If  $x$  and  $y$  are two independent variables then  $V(x - y)$  is equal to—

A.  $V(x) + V(y)$

B.  $V(x) - V(y)$

C. 0

D. None of these.

**Answer:**



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**3.** Choose the correct alternative : [MCQ] For a random variable  $x$  the relation between  $E(X^2) \square E^2(x)$ .

A.  $\geq$

B.  $\leq$

C.  $=$

D.  $>$

**Answer:**



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**4. Choose the correct alternative : [MCQ] Third central moment of normal distribution is**

A.  $\mu^3$

B. 1

C. 0

D. 2

**Answer:**



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5. Choose the correct alternative : [MCQ] If probability of type-I error and type-II error of a

test are 0.4 and 0.25 respectively, then power of the test is--

A. 0.6

B. 1.25

C. 0.25

D. nonr of these.

**Answer:**



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6. Choose the correct alternative : [MCQ] If  $E(T_1) = \theta_1 + \theta_2$  and  $E(T_2) = \theta_1 - \theta_2$ , then the unbiased estimator of  $\theta_2$  is--

A.  $T_1 + T_2$

B.  $T_1 - T_2$

C.  $\frac{T_1 - T_2}{2}$

D. None of these.

**Answer:**



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7. Choose the correct alternative : [MCQ]

Efficiency can be measured form---

A. Mean

B. Variance

C.  $\frac{1}{V}$  *ariance*

D.  $\frac{1}{M}$  *ean*

**Answer:**



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8. Answer the following questions

(Alternatives are to be noted): What is the

value of  $\sqrt{\frac{5}{2}}$



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9. Answer the following questions

(Alternatives are to be noted): Find the

coefficient of variation for the poisson

distribution when the parameter is unity.



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**10.** Answer the following questions  
(Alternatives are to be noted): What is sample'  
space?



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**11.** Answer the following questions  
(Alternatives are to be noted): What do you  
mean by simple random sampling?



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**12.** Answer the following questions (Alternatives are to be noted): What is the basic difference between seasonal and cyclical fluctuation?



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**13.** Answer the following questions (Alternatives are to be noted): In which situation Binomial distribution will be mesokurtic.



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**14.** Answer the following questions  
(Alternatives are to be noted): What do you  
mean by Process control?



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**15.** Answer the following questions  
(Alternatives are to be noted): Define level of  
significance.



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**16.** Answer the following questions

(Alternatives are to be noted) : Prove that

$|r| = \sqrt{b_{yx} \cdot b_{xy}}$  where  $r$  and  $b_{xy}, b_{yx}$  are the

correlation and regression coefficients

respectively.



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**17.** Answer the following questions

(Alternatives are to be noted) : Explain M.V.U.E.



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**18.** Answer the following questions  
(Alternatives are to be noted) : What is  
percentile rank



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**19.** Answer the following questions  
(Alternatives are to be noted) : Define  
standard error.



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20. Answer the following questions (Alternatives are to be noted): What are the two basic principles of sample survey.



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21. Answer the following questions (Alternatives are to be noted): Derive spearman's rank correlation coefficient.



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