SECOND TERM END EXAMINATION - 2025

CLASS: XII

# MULTIPLE CHOICE QUESTIONS

STATISTICS

SECOND PAPER

[According to the Syllabus of 2026] TIME - 25 minutes

FULL MARKS – 25

Subject	Code:	1	3	0

Set:  $\mathbf{A}$ 

[N.B. – Answer all the questions. Each question carries ONE mark. Block fully, with a black ball-point pen, the circle of the letter that stands for the correct/best answer in the "Answer sheet" for the Multiple Choice Questions Examination.

Candidates are asked not to leave any mark or spot on the question paper.

1. Which is an example of time series dat
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- (a) Number of calls received by a call center each month
- (b) Height of children at different ages
- (c) Tota salary of all employees at a company
- (d) Population of different countries in 2020

## 2. Which can measure trend most precisely?

(a) Graphical method

(b) Semi-average method

(c) Moving average method

(d) Quarter-average method

# Answer the next THREE questions based on the following information

Year	2016	2017	2018	2019	2020	2021	2022	2023
USD Exchange Rate	78 35	79 49	82.87	83 26	84 60	84 37	85.80	106 70

Table 1: Source–Investing.com

# 3. What is the second value of semi-average method?

- (a) 85.40
- (b) 90.37
- (c) 91.73
- (d) 89.78

## 4. What kind of a trend do the data have?

(a) Upward

- (b) Downward
- (c) Both upward & downward
- (d) No trend

## 5. Which component of time series is visible in the later part of the data?

- (a) Seasonal Variation (b) General Trend
- (c) Irregular Variation (d) Cyclic Variation

6. 
$$^{n}p_{r} =$$

(a) 
$$\frac{n!}{(n-r)!}$$

(b) 
$$\frac{n!}{(n+r)!}$$

(c) 
$$\frac{n!}{r!}$$

(d) 
$$\frac{n!}{(r-n)!}$$

### 7. The probability of two disjoint sets happening together is:

- (a) 0.5
- (b) 0
- (c) 1
- (d)  $0 \le x < 1$

## 8. $P(A \cap B) = P(A) \times P(B)$ implies A & B are –

- (a) Disjoint
- (b) Independent
- (c) Joint
- (d) Independent

#### 9. Tossing a die r times generates how many outcomes?

- (a)  $6 \times r$
- (b)  $r^6$
- (d)  $2^r$

# Answer the next three questions using the following information

$$P(C) = \frac{2}{5}, P(D) = \frac{3}{4} \& P(C \cup D) = \frac{9}{10}$$

10.  $P(C \cap D) = ?$ 

- (a)  $\frac{1}{10}$
- (b)  $\frac{1}{4}$
- (c)  $\frac{7}{20}$
- (d)  $\frac{4}{5}$

11. 
$$P(C \cap \bar{D}) = ?$$

- (a)  $\frac{1}{10}$
- (b)  $\frac{2}{5}$
- (c)  $\frac{2}{20}$
- (d)  $\frac{3}{10}$

	(a) $\frac{17}{20}$	(b) $\frac{7}{10}$	(c) $\frac{3}{4}$	(d) $\frac{11}{20}$
	An urn contains 5 red,	7 blue, and 8 green balls.		
13.	_	lity that the ball draw		
	(a) 0.26	(b) 0.25	(c) 0.2	(d) 0.4
14.	P(The ball drawn is	·	7	( 2) 9
	(a) $\frac{13}{20}$	(b) 0.5	(c) $\frac{7}{20}$	(d) $\frac{8}{20}$
l5.			uous random variable	
	(a) Weight	(b) Height	(c) Time	(d) Size of television
16.	i. $\sum P(X) = 1$ ii. $P(X) \ge 0$ for all $X$	discrete probability discrete probability discrete values.		
	(a) i and ii	(b) ii and iii	(c) i and iii	(d) i, ii, and iii
l7.	What is $F(-\infty)$ for a	distribution function	F(x)?	
	(a) $-\infty$	(b) -1	(c) 0	(d) 1
	Answer the next two	questions based on t	he following informati	on
		$\frac{\mathbf{x}}{\mathbf{P}(\mathbf{x})}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
18.	What is $F(2)$ ?			
	(a) $\frac{2}{3}$	(b) $\frac{5}{6}$	(c) $\frac{1}{2}$	(d) 1
19.	$P(1 < X \le 2)$			
	(a) $\frac{5}{6}$	(b) $\frac{2}{3}$	(c) $\frac{1}{2}$	(d) $\frac{1}{6}$
20.	E(4x+2Y) = ? (a) $E(X) - E(Y)$	(b) $4E(X) + 2E(Y)$	(c) $2E(X) + 4E(Y)$	(d) $E(X) \times E(Y)$
21.	What is the expected from their mean?	d value of of the squar	red deviation of the va	due of the random variable
	(a) Arithmetic Mean	(b) Expectation	(c) Variance	(d) Co-variance
22.	If $E(X) = -0.5$ , then	E(1-2X) = ?		
	(a) 0	(b) -1	(c) 2	(d) 1
23.	The possible relation	nship between $E(X)$ and	$dE(X^2)$	
	i. $E(X) \ge E(X^2)$ ii. $E(X) \le E(X^2)$ iii. $E(X) = E(X^2)$			
	Which one is correct		(.)	(1) 1
	(a) i and ii	(b) i and iii	(c) ii and iii	(d) i, ii and iii

12. What is the probability that D occurs or C does not occur?

SECOND TERM END EXAMINATION - 2025

CLASS: XII

# MULTIPLE CHOICE QUESTIONS

STATISTICS

SECOND PAPER

[According to the Syllabus of 2026] TIME - 25 minutes

FULL MARKS – 25

Subject Code: 1 3 0

Set: B

[N.B. – Answer all the questions. Each question carries ONE mark. Block fully, with a black ball- point pen, the circle of the letter that stands for the correct/best answer in the "Answer sheet" for the Multiple Choice Questions Examination.]

	Choice Questions Examination.]  Candidates are asked not to leave any mark or spot on the question paper.								
1.	$^{n}p_{r}=$								
		(b) $\frac{n!}{(n+r)!}$	(c) $\frac{n!}{r!}$	(d) $\frac{n!}{(r-n)!}$					
2.	The probability of tw	vo disjoint sets happe	ning together is:						
	(a) 0.5	(b) 0	(c) 1	(d) $0 \le x < 1$					
3.	$P(A \cap B) = P(A) \times P(A)$	B) implies A & B are	_						
	(a) Disjoint	(b) Independent	(c) Joint	(d) Independent					
4.	Tossing a die r times	generates how many	outcomes?						
	(a) $6 \times r$	(b) $r^6$	(c) $6^r$	(d) $2^r$					
	Answer the next three questions using the following information								
	$P(C) = \frac{2}{5}, P(D) = \frac{3}{4} \& F$	$P(C \cup D) = \frac{9}{10}$							
5.	$P(C \cap D) = ?$								
	(a) $\frac{1}{10}$	(b) $\frac{1}{4}$	(c) $\frac{7}{20}$	(d) $\frac{4}{5}$					
6.	$P(C \cap \bar{D}) = ?$								
	(a) $\frac{1}{10}$	(b) $\frac{2}{5}$	(c) $\frac{2}{20}$	(d) $\frac{3}{10}$					
7.	What is the probability that D occurs or C does not occur?								
	(a) $\frac{17}{20}$	(b) $\frac{7}{10}$	(c) $\frac{3}{4}$	(d) $\frac{11}{20}$					
	An urn contains 5 red, '	7 blue, and 8 green balls.							
8.	What is the probabil	lity that the ball draw	vn is red?						
	(a) 0.26	(b) 0.25	(c) 0.2	(d) $0.4$					
9.	P(The ball drawn is	not blue)–							
	(a) $\frac{13}{20}$	(b) 0.5	(c) $\frac{7}{20}$	(d) $\frac{8}{20}$					
10.	Which one is NOT a	n example of a contin	uous random variable	_					
	(a) Weight	(b) Height	(c) Time	(d) Size of television					
11.	The properties of a d	liscrete probability di	stribution table are-						
	i. $\sum P(X) = 1$								
	ii. $P(X) \ge 0$ for all $X$								
	iii. Each probability cor	responds to a discrete va	lue.						
	Which one is correct								
	(a) i and ii	(b) ii and iii	(c) i and iii	(d) i, ii, and iii					
12.	What is $F(-\infty)$ for a	distribution function	F(x)?						
	(a) $-\infty$	(b) -1	(c) 0	(d) 1					

Answer the next two questions based on the following information

13.	What is $F(2)$ ?								
	(a) $\frac{2}{3}$	(b	$\frac{5}{6}$			(c) $\frac{1}{2}$			(d) 1
14.	$P(1 < X \le 2)$								
	(a) $\frac{5}{6}$	(b	$\frac{2}{3}$			(c) $\frac{1}{2}$			(d) $\frac{1}{6}$
15.	E(4x+2Y) = ?								
	(a) $E(X) - E(Y)$	(b	) 4E(X	+ 2E	(Y)	(c) 2E(	(X) + 4	E(Y)	(d) $E(X) \times E(Y)$
16.	What is the expect from their mean?	ted v	alue of	f of $the$	e squar	red deviation of the value of the			alue of the random variable
	(a) Arithmetic Mean	(b	) Expe	ctation		(c) Var	riance		(d) Co-variance
17.	If $E(X) = -0.5$ , the	$\mathbf{en}\ E(\mathbf{i})$	1-2X	) =?					
	(a) 0	(b	) -1			(c) 2			(d) 1
18.	The possible relati	ionshi	ip betv	ween E	C(X) and	$dE(X^2)$			
	i. $E(X) \ge E(X^2)$ ii. $E(X) \le E(X^2)$ iii. $E(X) = E(X^2)$								
	Which one is corre	ect?							
	(a) i and ii	(b	) i and	iii		(c) ii a	nd iii		(d) i, ii and iii
19.	Which is an examp	ple of	time	series	data?				
(a) Number of calls received by a call center each month									
	(b) Height of children	n at di	fferent	ages					
	(c) Tota salary of all	_	ŭ.	_					
	(d) Population of diff	ferent	countri	es in 20	020				
20.	20. Which can measure trend most precisely?								
	(a) Graphical method					,		ige meth	
	(c) Moving average method (d) Quarter-average method								
	Answer the next T	LHRE	EE que	stions	based	on the	follow	ing info	ormation
		2016	2017	2018	2019	2020	2021	2022	2023
US	SD Exchange Rate   7	8.35	79.49	82.87	83.26	84.60	84.37	85.80	106.70
				Table 1	2: Sour	ce–Inves	ting.cor	n	
21.	What is the second	d valı	ie of s	emi-av	erage 1	$\mathbf{nethod}$	1?		
	(a) 85.40	(b	90.37			(c) 91.	73		(d) 89.78
22.	What kind of a tre	$\mathbf{end} \ \mathbf{d}$	o the o	data h	ave?				
	(a) Upward					(b) Do	wnward		
	(c) Both upward & d	ownwa	ard			(d) No	trend		
23.	Which component	of ti	me ser	ies is v	visible	in the	later p	art of t	he data?
	(a) Seasonal Variatio	n (b	) Gener	ral Trer	nd	(c) Irre	egular V	ariation	(d) Cyclic Variation

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CLASS: XII

# MULTIPLE CHOICE QUESTIONS

STATISTICS

SECOND PAPER

[According to the Syllabus of 2026] TIME – 25 minutes

FULL MARKS – 25

0 1 1 2 7 7			
Subject Cod	.e: 🔝	3	U

Set: C

[N.B. – Answer all the questions. Each question carries ONE mark. Block fully, with a black ball- point pen, the circle of the letter that stands for the correct/best answer in the "Answer sheet" for the Multiple Choice Questions Examination.]

ре	en, the circle of the letter		rect/best answer in the " ions Examination.]	Answer sheet" for the Multiple
	Candidates are	_	any mark or spot on the	ne question paper.
1.	Which one is NOT a	an example of a conti	nuous random variable	e –
	(a) Weight	(b) Height	(c) Time	(d) Size of television
2.	The properties of a contract i. $\sum P(X) = 1$ ii. $P(X) \ge 0$ for all $X$	discrete probability d	listribution table are—	
		rresponds to a discrete v	value.	
	Which one is correct	t?		
	(a) i and ii	(b) ii and iii	(c) i and iii	(d) i, ii, and iii
3.	What is $F(-\infty)$ for a	a distribution function	$\mathbf{n} F(x)$ ?	
	(a) $-\infty$	(b) -1	(c) 0	(d) 1
	Answer the next two	o questions based on	the following informat	ion
		$\frac{x}{P(x)}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
4.	What is $F(2)$ ?			
	(a) $\frac{2}{3}$	(b) $\frac{5}{6}$	(c) $\frac{1}{2}$	(d) 1
5.	$P(1 < X \le 2)$			
	(a) $\frac{5}{6}$	(b) $\frac{2}{3}$	(c) $\frac{1}{2}$	(d) $\frac{1}{6}$
6.	E(4x+2Y) = ?			
	(a) E(X) - E(Y)	(b) $4E(X) + 2E(Y)$	(c) 2E(X) + 4E(Y)	(d) $E(X) \times E(Y)$
7.	What is the expecte from their mean?	d value of of the squa	ared deviation of the v	alue of the random variable
	(a) Arithmetic Mean	(b) Expectation	(c) Variance	(d) Co-variance
8.	If $E(X) = -0.5$ , then	E(1-2X) = ?		
	(a) 0	(b) -1	(c) 2	(d) 1
9.	The possible relation	nship between $E(X)an$	$ndE(X^2)$	
	i. $E(X) \ge E(X^2)$ ii. $E(X) \le E(X^2)$ iii. $E(X) = E(X^2)$			
	Which one is correct	t?		
	(a) i and ii	(b) i and iii	(c) ii and iii	(d) i, ii and iii
10.	Which is an example	e of time series data?		
	(a) Number of calls rec	eived by a call center ea	ch month	

(b) Height of children at different ages

(c) Tota salary of all employees at a company(d) Population of different countries in 2020

	<ul><li>(a) Graphical method</li><li>(c) Moving average method</li></ul>						<ul><li>(b) Semi-average method</li><li>(d) Quarter-average method</li></ul>				
	Answer the next	EE que	estions	based	on the following information						
	Year	2016	2017	2018	2019	2020	2021	2022	2023		
US	SD Exchange Rate	78.35	79.49	82.87	83.26	84.60	84.37	85.80	106.70		
				Table	3: Sour	ce–Inves	sting.co	m			
12.	What is the seco	nd val	ue of s	semi-av	erage 1	method	1?				
	(a) 85.40	(1	o) 90.37	,		(c) 91.	73		(d) 89.78		
13.	What kind of a	trend o	lo the	data h	ave?						
	(a) Upward					(b) Do	wnward	l			
	(c) Both upward &	downw	vard			(d) No	trend				
14.	Which componer	nt of ti	me ser	ies is v	visible	in the	later p	art of t	the data?		
	(a) Seasonal Variat	tion (l	o) Gene	eral Trei	nd	(c) Irre	egular <b>\</b>	Variation Pariation	(d) Cyclic Variation		
	$^{n}p_{r}=$										
	(a) $\frac{n!}{(n-r)!}$	(1	o) $\frac{n!}{(n-1)!}$	\1		(c) $\frac{n!}{r!}$			(d) $\frac{n!}{(r-n)!}$		
	(n-r)! $(n+r)!6. The probability of two disjoint sets happen$						,				
10.	(a) 0.5		o) 0	n sers	парреі	(c) 1	gemer	15:	(d) $0 \le x < 1$		
17	$P(A \cap B) = P(A)$	`	,	ng A Øz	Raro	,			(d) 0 <u>-</u> w (1		
L1.	(a) Disjoint			pendent		(c) Joi	nt		(d) Independent		
18	Tossing a die r t	`	, -			,			(")		
	(a) $6 \times r$	O	o) $r^6$	es now	many	(c) $6^r$	iles.		(d) $2^r$		
	Answer the next	`	,	ons usi	ing the	` /	ing inf	ormatic	· /		
	$P(C) = \frac{2}{5}, P(D) =$	$\frac{3}{4}\&P(C_{4})$	$(U \cup D) =$	$=\frac{9}{10}$							
19.	$P(C \cap D) = ?$										
	(a) $\frac{1}{10}$	(1	$(1)^{\frac{1}{4}}$			(c) $\frac{7}{20}$			(d) $\frac{4}{5}$		
20.	$P(C \cap \bar{D}) = ?$										
	(a) $\frac{1}{10}$	(1	$(2) \frac{2}{5}$			(c) $\frac{2}{20}$			(d) $\frac{3}{10}$		
21.	What is the prol	bability	y that	D occu	ırs or (	C does	not oc	cur?			
	(a) $\frac{17}{20}$	(1	o) $\frac{7}{10}$			(c) $\frac{3}{4}$			(d) $\frac{11}{20}$		
	An urn contains 5	red, 7 b	lue, and	d 8 gree	en balls.						
22.	What is the prol	bability	y that	the ba	ll draw	n is re	d?				
	(a) 0.26	(1	o) 0.25			(c) $0.2$			(d) 0.4		
23.	P(The ball draw	n is no	t blue	)—							
	(a) $\frac{13}{20}$	(1	o) 0.5			(c) $\frac{7}{20}$			(d) $\frac{8}{20}$		

11. Which can measure trend most precisely?

SECOND TERM END EXAMINATION - 2025

CLASS: XII

# MULTIPLE CHOICE QUESTIONS

STATISTICS

SECOND PAPER

[According to the Syllabus of 2026]

TIME - 25 minutes FULL MARKS - 25

Set: D

[N.B. – Answer all the questions. Each question carries ONE mark. Block fully, with a black ball- point Multiple

pe	n, the circle of the l	etter tl				ect/best ons Exai		_	'Answer sheet" for the	Multiple
	Candidates	s are a			-			-	he question paper.	
1.	E(4x+2Y) = ? (a) $E(X) - E(Y)$	(	b) 4E(X	) + 2E(	(Y)	(c) 2E	(X) + 4	E(Y)	(d) $E(X) \times E(Y)$	
2.	What is the experiment from their mean		value o	${ m f}$ of ${ m th}\epsilon$	e squar	ed dev	iation	of the v	value of the random	variable
	(a) Arithmetic Mea	an (	b) Expe	ctation		(c) Vai	riance		(d) Co-variance	
3.	If $E(X) = -0.5$ , t	hen E	(1-2X	) =?						
	(a) 0	(	b) -1			(c) 2			(d) 1	
4.	4. The possible relationship between $E(X)$ and $E(X^2)$ i. $E(X) \ge E(X^2)$ ii. $E(X) \le E(X^2)$ iii. $E(X) = E(X^2)$ Which one is correct?  (a) i and ii (b) i and iii (c) ii and iii (d) i, ii and iii									
5.	Which is an exam	`	,		data?	(*) *			(**) -, 3	
	<ul><li>(a) Number of calls</li><li>(b) Height of child</li><li>(c) Tota salary of a</li><li>(d) Population of d</li></ul>	en at d	lifferent loyees at	ages a com	pany	n month				
6.	Which can meas	ure tre	end mo	st pred	cisely?					
	(a) Graphical meth	od				(b) Sei	ni-avera	age meth	nod	
	(c) Moving average method					(d) Quarter-average method				
	Answer the next THREE questions based on the following information									
US	Year SD Exchange Rate	2016 78.35	2017 79.49	2018 82.87	2019 83.26	2020 84.60	2021 84.37	2022 85.80	2023 106.70	
				Table 4	4: Sour	ce–Inves	ting.com	m		
7.	What is the seco	nd val	lue of s	emi-av	erage 1	method	1?			
	(a) 85.40	(	b) 90.37			(c) 91.	73		(d) 89.78	
8.	. What kind of a trend do the data have?									

(a) Upward

- (b) Downward
- (c) Both upward & downward
- (d) No trend

9. Which component of time series is visible in the later part of the data?

- (a) Seasonal Variation
- (b) General Trend
- (c) Irregular Variation
- (d) Cyclic Variation

10.  $^{n}p_{r} =$ 

- (a)  $\frac{n!}{(n-r)!}$
- (b)  $\frac{n!}{(n+r)!}$
- (c)  $\frac{n!}{r!}$
- (d)  $\frac{n!}{(r-n)!}$

11.	The probability of tw	vo disjoint sets haj	ppening together is:	
	(a) 0.5	(b) 0	(c) 1	(d) $0 \le x < 1$
12.	$P(A \cap B) = P(A) \times P(A)$	B) implies A & B	are –	
	(a) Disjoint	(b) Independent	(c) Joint	(d) Independent
13.	Tossing a die r times	generates how ma	any outcomes?	
	(a) $6 \times r$	(b) $r^6$	(c) $6^r$	(d) $2^r$
			the following information	on
	$P(C) = \frac{2}{5}, P(D) = \frac{3}{4}\&P$	$C(C \cup D) = \frac{9}{10}$		
14.	$P(C \cap D) = ?$		_	
	(a) $\frac{1}{10}$	(b) $\frac{1}{4}$	(c) $\frac{7}{20}$	(d) $\frac{4}{5}$
15.	$P(C \cap \bar{D}) = ?$			
	(a) $\frac{1}{10}$	(b) $\frac{2}{5}$	(c) $\frac{2}{20}$	(d) $\frac{3}{10}$
16.	What is the probabil	ity that D occurs	or C does not occur?	
	(a) $\frac{17}{20}$	(b) $\frac{7}{10}$	(c) $\frac{3}{4}$	(d) $\frac{11}{20}$
	An urn contains 5 red, 7	7 blue, and 8 green b	alls.	
17.	What is the probabil	ity that the ball d	rawn is red?	
	(a) 0.26	(b) 0.25	(c) 0.2	(d) $0.4$
18.	P(The ball drawn is	not blue)–		
	(a) $\frac{13}{20}$	(b) 0.5	(c) $\frac{7}{20}$	(d) $\frac{8}{20}$
19.	Which one is NOT a	n example of a co	ntinuous random variabl	e –
	(a) Weight	(b) Height	(c) Time	(d) Size of television
20.	The properties of a c	liscrete probability	y distribution table are—	
	i. $\sum P(X) = 1$			
	ii. $P(X) \ge 0$ for all $X$		,	
	iii. Each probability cor	_	se value.	
	Which one is correct (a) i and ii	(b) ii and iii	(c) i and iii	(d) i, ii, and iii
า1	•		,	(4) 1, 11, 6114 111
21.	What is $F(-\infty)$ for a (a) $-\infty$	(b) -1	(c) 0	(d) 1
	,		on the following informa	,
		_	_	
		P(	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
22.	What is $F(2)$ ?			
	(a) $\frac{2}{3}$	(b) $\frac{5}{6}$	(c) $\frac{1}{2}$	(d) 1
23.	$P(1 < X \le 2)$			
	(a) $\frac{5}{6}$	(b) $\frac{2}{3}$	(c) $\frac{1}{2}$	(d) $\frac{1}{6}$