

Question Paper Pattern (XI & XII)  
**Mathematics and Statistics (Arts & Science)**  
 (Year 2019-20)

**Total Marks- 80 (with options 112)**

**Time -3 hrs.**

**General Instructions:** The question paper is divided into four sections.

- (1) **Section A:** Q.No. 1 contains Eight multiple choice type of questions carrying **Two** marks each.  
 Q.No. 2 contains Four very short answer type of questions carrying **One** mark each.
- (2) **Section B:** Q.No. 3 to Q.No. 14 contains Twelve short answer type of questions carrying **Two** marks each.  
 (Attempt any **Eight**).
- (3) **Section C:** Q.No. 15 to Q.No. 26 contains Twelve short answer type of questions carrying **Three** marks each.  
 (Attempt any **Eight**).
- (4) **Section D:** Q.No. 27 to Q.No. 34 contains Eight long answer type of questions carrying **Four** marks each.  
 (Attempt any **Five**).
- (5) Use of log table is allowed. Use of calculator is **not** allowed.
- (6) Figures to the right indicate full marks.
- (7) For each **MCQ**, correct answer must be written along with its alphabet. e.g., **(a)**..... **/(b)**.....  
**/(c)**..... **/(d)**.....
- (8) Use of graph paper is not necessary. Only rough sketch is expected.
- (9) The question paper contains 15% theory question.

**\*Weightage to Learning Objectives**

	<b>Total Weightage (With Option)</b>	<b>Percentage %</b>
Knowledge	34 Marks	30 %
Understanding	47 Marks	42 %
Application + Skill	31 Marks	28 %
<b>Total</b>	<b>112 Marks</b>	<b>100 %</b>

**\*Difficulty Level of the questions**

	<b>Total Weightage (With Option)</b>	<b>Percentage %</b>
Easy	34 Marks	30 %
Average	56 Marks	50 %
Difficult	22 Marks	20 %
<b>Total</b>	<b>112 Marks</b>	<b>100 %</b>

**\* Weightage to Types of questions**

<b>Type of question</b>	<b>Marks for each</b>	<b>No of questions</b>	<b>Total Marks (with option)</b>
MCQ	2 Mark each	Q.No. 1 (i to viii)	16 Marks
VSA	1 Mark each	Q.No. 2 (i to iv)	4 Marks
SA I	2 Mark each	Q.No. 3 to 14	24 Marks
SA II	3 Mark each	Q.No. 15 to 26	36 Marks
LA	4 Mark each	Q.No. 27 to 34	32 Marks
<b>Total</b>			<b>112 Marks</b>

**Subject: Mathematics and Statistics**

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**Std. XI & XII (Arts & Science)**  
**Question Paper Format For Annual Examination**

**Marks 80**

**Time- 3 hrs**

**General Instructions:** The question paper is divided into four sections.

(1) **Section A:** Q.No. 1 contains Eight multiple choice type of questions carrying **Two** marks each.

Q.No. 2 contains Four very short answer type of questions carrying **One** mark each.

(2) **Section B:** Q.No. 3 to Q.No. 14 contains Twelve short answer type of questions carrying **Two** marks each.

(3) **Section C:** Q.No. 15 to Q.No. 26 contains Twelve short answer type of questions carrying **Three** marks each.

(4) **Section D:** Q.No. 27 to Q.No. 34 contains Eight long answer type of questions carrying **Four** marks each.

(5) Use of log table is allowed. Use of calculator is **not** allowed.

(6) Figures to the right indicate full marks.

(7) Use of graph paper is not necessary. Only rough sketch is expected.

**Section A**

**Q.No.1 Select and write the correct answer:** [16]  
(i) to (viii) MCQ

**Q.No.2 Answer the following:** [04]  
(i) to (iv) VSA

**Section B**

Attempt any **Eight:** [16]  
**Q.No.3 to Q.No. 14** SA- I

**Section C**

Attempt any **Eight:** [24]  
**Q.No.15 to Q.No. 26** SA-II

**Section D**

Attempt any **Five:** [20]  
**Q.No.27 to Q.No. 34** LA

**Subject: Mathematics**

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**Std. XI & XII (Arts & Science)**  
**Question Paper Format For Unit Test**

**Marks 25**

**Time- 1 ½ hrs**

**Section A**

**Q.No.1 Select and write the correct answer:**

**[04]**

(i) to (ii) MCQ

**Q.No.2 Answer the following:**

**[03]**

(i) to (iii) VSA

**Section B**

Attempt any **Four:**

**[08]**

**Q.No.3 to Q.No. 8 SA- I**

**Section C**

Attempt any **Two:**

**[06]**

**Q.No.9 to Q.No. 11 SA-II**

**Section D**

Attempt any **One:**

**[04]**

**Q.No.12 to Q.No. 13 LA**

**Question Paper Format For Terminal Examination**

**Marks 50**

**Time- 2 ½ hrs**

**Section A**

**Q.No.1 Select and write the correct answer:**

**[10]**

(i) to (v) MCQ

**Q.No.2 Answer the following:**

**[04]**

(i) to (iv) VSA

**Section B**

Attempt any **Eight:**

**[16]**

**Q.No.3 to Q.No. 13 SA- I**

**Section C**

Attempt any **Four:**

**[12]**

**Q.No.14 to Q.No. 19 SA-II**

**Section D**

Attempt any **Two:**

**[08]**

**Q.No.20 to Q.No. 23 LA**

**Subject: Mathematics and Statistics**  
**CHAPTER-WISE DISTRIBUTION OF MARKS - Std XI**

Sr. No.	Chapter	Marks	Marks with option
1	Angle and its Measurement	3	4
2	Trigonometry 1	4	6
3	Trigonometry 2	6	8
4	Determinants and Matrices	7	10
5	Straight Lines	4	5
6	Circle	3	4
7	Conic Sections	6	8
8	Measures of Dispersion	4	5
9	Probability	4	6
10	Complex Numbers	4	6
11	Sequence and Series	5	7
12	Permutations and Combinations	6	8
13	Method Of Induction and Binomial Theorem	5	7
14	Sets and Relations	4	6
15	Functions	4	5
16	Limits	4	6
17	Continuity	3	5
18	Differentiation	4	6
	<b>Total</b>	<b>80</b>	<b>112</b>

**Std- XII**

Sr. No.	Chapter	Marks	Marks with option
1.	Mathematical Logic	6	8
2	Matrices	4	6
3	Trigonometric Functions	7	10
4	Pair of Straight Lines	4	6
5	Vectors	5	7
6	Three Dimensional Geometry	4	5
7	Line	4	5
8	Plane	4	5
9	LPP	3	4
10	Continuity	4	6
11	Differentiation	6	8
12	Applications of Derivatives	6	8
13	Indefinite Integration	6	9
14	Definite Integration and Its application	6	8
15	Differential Equations	5	7
16	Probability Distribution	3	5
17	Binomial Distribution	3	5
	<b>Total</b>	<b>80</b>	<b>112</b>