

**CAREERS360**

**Maharashtra HSC  
Mathematics  
Statistics  
(Commerce)  
MODEL PAPER 2021**



**Maharashtra State Board of Secondary and  
Higher Secondary Education, Pune**  
**Subject : Mathematics & Statistics (88)**  
**Std. XII (Commerce)**

**Unit-wise distribution of marks.**

**Part I**

Sr. No.	Topic	Marks with Option
1.	Mathematical Logic	8
2.	Matrices	8
3.	Differentiation	7
4.	Application of Derivatives	9
5.	Integration	7
6.	Definite Integration	5
7.	Application of definite integration	4
8.	Differential Equations and its Applications	10
	<b>Total</b>	<b>58</b>

**Part II**

Sr. No.	Topic	Marks with Option
1.	Commission , Brokerage and Discount	6
2.	Insurance and Annuity	4
3.	Linear regression	8
4.	Time Series	7
5.	Index Numbers	7
6.	Linear Programming	6
7.	Assignment Problems and Sequencing	9
8.	Probability Distributions	11
	<b>Total</b>	<b>58</b>



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**Objective wise distribution of marks.**

Sr. No.	Objectives	Marks	Percentage
1.	Knowledge	13	11
2.	Understanding	32	28
3.	Applications and skill	71	61
	<b>Total</b>	<b>116</b>	<b>100</b>

**Question wise distribution of marks.**

Type of Question	Marks with option
MCQ	12
Objective	12
Short Answer	36
Long Answer	40
Activity Based	16
<b>Total</b>	<b>116</b>

**Difficulty wise distribution of marks**

Type	Marks	Percentage
Easy	35	30
Average	58	50
Difficult	23	20



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**Format of Question Paper**  
**(From Year 2021)**  
**Annual Examination**

**Time : 3 Hours**

**Total Marks - 80**

**General Instructions:**

- 1) All questions are compulsory.
- 2) There are 6 questions divided into two sections.
- 3) Write answers of Section I and Section II in the **same** answer book.
- 4) Use of logarithmic tables is allowed. Use of calculator is **not** allowed.
- 5) For LPP graph paper is not necessary. Only rough sketch of graph is expected.
- 6) Start answer to each question on a new page.

**Section I**

Q.1 A) Select and write the most appropriate answer from the given alternatives for each sub-question. (1 mark each) [6]

- i)
- ii)
- iii)
- iv)
- v)
- vi)

B) State whether the following statements are **true** or **false**. (1 mark each)[3]

- i)
- ii)
- iii)

C) Fill in the following blanks. (1 mark each)[3]

- i)
- ii)
- iii)

- Q 2. A) Attempt any **two** of the following questions. ( 3 marks each)[6]  
i)  
ii)  
iii)
- B) Attempt any **two** of the following questions. ( 4 marks each)[8]  
i)  
ii)  
iii)
- Q 3. A) Attempt any **two** of the following questions. ( 3 marks each)[6]  
i)  
ii)  
iii)
- B) Attempt any **one** of the following questions. ( 4 marks each)[4]  
i)  
ii)
- C) Attempt any **one** of the following questions. (Activity) ( 4 marks each)[4]  
i)  
ii)

## Section II

- Q 4. A) Select and write the most appropriate answer from the given alternatives for each sub-question. (1 mark each) [6]  
i)  
ii)  
iii)  
iv)  
v)  
vi)
- B) State whether the following statements are **true** or **false**. (1 mark each)[3]  
i)  
ii)  
iii)

C) Fill in the following blanks. (1 mark each)[3]

- i)
- ii)
- iii)

Q 5.A) Attempt any **two** of the following questions. (3 marks each)[6]

- i)
- ii)
- iii)

B) Attempt any **two** of the following questions. (4 marks each)[8]

- i)
- ii)
- iii)

Q 6.A) Attempt any **two** of the following questions. (3 marks each)[6]

- i)
- ii)
- iii)

B) Attempt any **one** of the following questions. (4 marks each)[4]

- i)
- ii)

C) Attempt any **one** of the following questions. (Activity) (4 marks each)[4]

- i)
- ii)

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**Format of Question Paper (Unit Test)**

**Time : 1.30 Hours**

**Total Marks - 25**

**Instructions :**

- 1) Use of logarithmic tables is allowed. Use of calculator is not allowed.
- 2) For LPP graph paper is not necessary. Only rough sketch of graph is expected.

**Section I**

Q 1. A) Select and write the most appropriate answer from (1 mark each) [7]  
the given alternatives for each question.

- i)
- ii)
- iii)
- iv)
- v)
- vi)
- vii)

B) Attempt any two of the following questions. (2 marks each) [4]

- i)
- ii)
- iii)

Q 2. A) Attempt any two of the following questions. (3 marks each) [6]

- i)
- ii)
- iii)
- iv)

B) Attempt any two of the following questions. (4 marks each) [8]

- i)
- ii)
- iii)
- iv)



**Maharashtra State Board of Secondary and  
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**Format of Question Paper (Terminal Examination)**

**Time : 2.30 Hours**

**Total Marks - 50**

**Instructions :**

- 1) Use of logarithmic tables is allowed. Use of calculator is **not** allowed.
- 3) For LPP graph paper is not necessary. Only rough sketch of graph is expected.

Q 1. A) Select and write the most appropriate answer from (1 mark each) [5]  
the given alternatives for each question.

- i)
- ii)
- iii)
- iv)
- v)

B) State whether the following statements are **true** or **false**. (1 mark each) [4]

- i)
- ii)
- iii)
- iv)

C) Fill in the following blanks. (1 mark each) [4]

- i)
- ii)
- iii)
- iv)

Q 2. A) Attempt any **seven** of the following questions. (3 marks each) [21]

- i)
- ii)



- iii)
- iv)
- v)
- vi)
- vii)
- viii)
- ix)
- x)

B) Attempt any **FOUR** of the following questions. ( 4 marks each)[16]

- i)
- ii)
- iii)
- iv)
- v)
- vi)