<div align="center">

# QUESTION PAPER DESIGN-COMBINED
## Subject : Mathematics (311) Senior Secondary Course

</div>

**Maximum Marks : 100**                                                  **Time: 3Hrs.**

## 1.Weightage by Objectives

| S. No. | Objectives | Marks | %of Total Mark |
|--------|-----------|-------|----------------|
| 1. | Knowledge | 30 | 30% |
| 2. | Understanding | 40 | 40% |
| 3. | Application | 22 | 22% |
| 4. | Skill | 8 | 8% |

## 2. Weightage by type of Questions

| Sl. No. | Type of question | No. of questions | Marks per question | Marks |
|---------|-----------------|------------------|--------------------|-------|
| 1. | MCQ (1 mark) # | 20 | 1 | 20 |
| 2. | Objective Type Questions (1*2 = 2 marks) ## (with 2 sub-parts of 1 mark each) | 4 | 2 | 8 |
| 3. | Objective Type Questions (1*4 = 4 marks) ### (with 4 sub-parts of 1 mark each) | 4 | 4 | 16 |
| 4. | Objective Type Questions (1*6 = 6 marks) #### (with 6 sub-parts of 1 mark each) | 1 | 6 | 6 |
| | **Total** | **29** | | **50** |
| 5. | Very Short Answer (2 marks questions) | 9 | 2 | 18 |
| 6. | Short Answer(SA) (4 marks questions) | 5 | 4 | 20 |
| 7. | Long Answer(LA) (6 marks questions) | 2 | 6 | 12 |
| | **Total** | **16** | | **50** |
| | **G. Total** | **45** | | **100** |

# **In Objective Type Questions of 1 mark:**     10 Questions will have internal choices.

# # **In Objective Type Questions of 2 marks:** 2 Questions will have 4 sub-parts out of which the learner has to do any 2 sub-parts.

# # **In Objective Type Questions of 4 marks:** All Questions will have 6 sub-parts out of which the learner has to do any 4 sub-parts.

#### **In Objective Type Questions of 6 marks:** This question will contain 9 Sub-parts out of which the learner has to do any 6 sub-parts.

☻**In subjective questions:** 4 Questions of 2 marks (VSA), 2 Questions of 3 marks (SA), 2 Questions of 6 marks (LA) will have internal choices.

## 3. Weightage to difficulty level of question

| Estimated Level | Marks | Percentage of marks |
|:---:|:---:|:---:|
| Difficulty | 20 | 20 |
| Average | 50 | 50 |
| Easy | 30 | 30 |
| **Total** | **100** | **100** |

## 4. Weightage by Content

| Sl. | Module | Marks |
|:---:|:---|:---:|
| 1. | Co-ordinate Geometry | 15 |
| 2. | Algebra-II | 17 |
| 3. | Relations and Functions | 12 |
| 4. | Calculus | 30 |
| 5. | Vectors and Three Dimensional Geometry | 17 |
| 6. | Linear Programming and Mathematical Reasoning | 9 |
| | Total | 100 |