**SRM Institute of Science and Technology**

**College of Engineering and Technology**

**DEPARTMENT OF ECE**

SRM Nagar, Kattankulathur – 603203, Chengalpattu District, Tamilnadu

AcademicYear:2022-23(Odd)

Assignment:1 Date:26/08/2022

CourseCode&Title:18ECC205J–Analog and Digital Communication

Year&Sem:V Max.Marks:20





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| **SNo** | **AnswerAllQuestions** | **Marks** | **CO** | **BL** | **PO** |
| 1 | Compare Different types of AM Techniques | 5 | 1 | 2 | 1 |
| 2 | Explain the conversion of PM to FM and FM to PM with neat block diagram. | 5 | 1 | 2 | 1 |
| 3 | A modulating signal 40sin (2πx 10 3 t ) is used to modulate a carrier signal 60 sin(2πx10 4 t )  Find the following  (i)Modulation Index  (ii)Percentage of modulation  (iii)Frequencies of sideband components and their amplitudes  (iv)Bandwidth  (v)Draw the frequency spectrum of AM wave. | 5 | 1 | 3 | 2 |
| 4 | An FM wave is given by e (t) =20cos (8π×10 6 t+9sin (2π×10 3 t)). Calculate the modulation index,frequency deviation ,amplitude of carrier signal, power of FM wave and Bandwidth of FM.. | 5 | 1 | 3 | 2 |

**Course Outcome (CO) and Bloom’s level (BL) Coverage in Questions**

**Evaluation Sheet**

**Name of the Student: Register No.:**

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| --- | --- | --- | --- | --- | --- |
| **Answer ALL questions** | | | | | |
| **Q. No** | **CO** | **PO** | **Maximum Marks** | **Marks Obtained** | **Total** |
| **1** | **CO1** | **1** | **5** |  |  |
| **2** | **CO1** | **1** | **5** |  |
| **3** | **CO1** | **2** | **5** |  |
| **4** | **CO1** | **2** | **5** |  |

**Consolidated Marks:**

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| --- | --- | --- |
| **CO** | **Maximum Marks** | **Marks Obtained** |
| **1** | **20** |  |
| **Total** | **20** |  |

|  |  |  |
| --- | --- | --- |
| **PO** | **Maximum Marks** | **Marks Obtained** |
| **1** | **10** |  |
| **2** | **10** |  |
| **Total** | **20** |  |

**Signature of Course Teacher**