**SRM Institute of Science and Technology**

**College of Engineering and Technology**

**DEPARTMENT OF ECE**

SRM Nagar, Kattankulathur – 603203, Chengalpattu District, Tamilnadu

**Academic Year: 2021-2022 (EVEN)**

**Test: Surprise test** Questions **Date: 15**-06-2022

**Course Code & Title:** 18ECE322T – OPTOELECTRONICS

**Year & Sem:** II / 4th Sem **Max. Marks:** 10

**Course Articulation Matrix with PI:**

Table

Description automatically generated with medium confidence

Surprise Test

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Q. No** | **Question** | **BL** | **CO** | **PO** | **PI** |
| **1** | Explain faraday effect with neat diagram and give expression for rotation angle | **2** | **4** | **1** | **1.3.1** |
| **2** | Explain Raman-Nath effect with a good illustration. | **2** | **4** | **1** | **1.3.1** |
| **3** | Draw and explain single waveguide electro-optic modulator | **2** | **4** | **1** | **1.3.1** |
| **4** | Name the four important parameters that determine performance of optical interconnects | **2** | **4** | **1** | **1.3.1** |
| **5** | Draw and explain double waveguide electro-optic modulator | **2** | **4** | **1** | **1.3.1** |
| **6** | Explain Bragg effect with a good illustration. | **2** | **4** | **1** | **1.3.1** |
| **7** | Draw the MZI type intensity modulator | **2** | **4** | **1** | **1.3.1** |
| **8** | Discuss Second harmonic generation concept in KDP crystal | **2** | **4** | **1** | **1.3.1** |
| **9** | Briefly discuss bistabilty nature of optical gates | **2** | **4** | **1** | **1.3.1** |
| **10** | Explain the difference between linear and nonlinear optics. | **2** | **4** | **1** | **1.3.1** |

Course faculty Year-in-charge Professor-in-charge