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| **P.V.P SIDDHARTHA INSTITUTE OF TECHNOLOGY (AUTONOMOUS)** |
| **BRANCH : Computer Science and Engineering** | **REGULATION : PVP-20** |
| **COURSE: B. Tech** | **SUBJECT : EM-III(Discrete Mathematical Structures)** |
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| **Subject Code: 20BS1303**  |

 | **Year and Semester: II Year / I Sem** | **Section: I** |
| **Academic Year:2023-24(Semester-I)** |
| **ASSIGNMENT-II(20-11-2023)** |

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| **Q.****NO** | **QUESTION** | **CO** | **LEVEL** |
| 1 | Solve the recurrence relationusingcharacteristics method. | **3** | **L3** |
| 2 | Solve the recurrence relationusingcharacteristics method with initial conditions. | **3** | **L3** |
| 3 | Draw the Hasse diagram representing the positive integers of 24 and Analyse Minimal, Maximal, Greatest and Least elements from Hasse diagram. | **3** | **L3** |
| 4 | Let 𝐴 = {𝑎, 𝑏, 𝑐, d} and P (𝐴) be its power set. Construct the Hasse diagram of (P (𝐴), ⊆). | **3** | **L3** |
| 5 | Examine the Hamiltonian Path, an Euler Path, Hamiltonian Circuit and Euler Circuit if it exists, in each of the three graphs given below. | **4** | **L4** |
| 6 | Discover the chromatic number of the following graph using Welch Powell Algorithm.edge-chromatic number 8 and vertex-chromatic number 3 | **4** | **L4** |