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| **Department of Electrical Engineering****Sessional Assignment****Date: 05/05/2020****Course Details** |
| **Course Title:** |  Signals & Systems | **Module:** | 04 |
| **Instructor:** |  | **Total Marks:** | 20 |
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**Student Details**

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| **Name:** |  | **Student ID:** |  |

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| Q1. |  | **Evaluate** the even and odd components for the given function. 5  4 3 x[n] 2  1 n 1 2 3 4 | Marks 05 |
| CLO 1 |
| Q2. |  | **Calculate** the inverse Laplace transform of the given equation.$$Y\left(s\right)= \frac{s+4}{s^{2 }+4s-12} $$ | Marks 07 |
| CLO 3 |
| Q3. |  i. ii. | **Discuss** the procedure of converting an analog signal into a digital one.Suppose an analog signal has a highest frequency of 60Hz. **Outline** the steps that will ensure that no aliasing occurs. | Marks 02+02 |
| CLO 2 |
| Q4. |  | **Show** that:x[n] \* [h1[n] \* h2[n] ] = [x[n] \* h1[n]] \* h2[n] | Marks 04 |
| CLO 2 |