**Unit 3 (Laplace Transform)**

**Important Questions**

1. Find the Laplace transform of the following functions:

 dt .

1. If L= , show that L= .
2. Find the Laplace transform of the function of period 2a given by                          f .
3. Find the Laplace transform of .
4. Find the inverse Laplace transform of the following functions:

 .

1. Find the inverse Laplace transform of the following functions by using  Convolution theorem:

 .

1. Using Laplace transform, solve the differential equations:

.

1. and

1. by reducing to normal form.
2. by reducing to normal form.
3. by changing the independent variable.
4. by changing the independent variable.
5. by the method of variation of parameters.
6. by the method of variation of parameters.