# SHIVAJIRAO S. JONDHALE COLLEGE OF ENGINEERING DEPARTMENT OF IT ENGINEERING

**Unit Test - 1  
Subject : Principle of Communications**

**SEM III Date : 09-10-2019  
 Time : 1 hour Marks : 50**

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## Q1. Answer the following 15 Marks

1. Define noise factor and noise figure. **(5 Marks)**

2. Explain an electronic communication system with the help of a block diagram. **(5 Marks)**

3. Explain wired communication channel. **(5 Marks)**

## Q2. Answer the following 15 Marks

1. Explain balanced modulator using FET's. **(5 Marks)**

2. Explain the generation and demodulation of SSBSC. **(10 Marks)**

## Q3. Answer the following 20 Marks

1. In relation with FM, explain a) Maximum frequency deviation b) Modulation index c) Frequency spectrum and bandwidth d) Pre-emphasis. **(8 Marks)**

2. What is meant by signal to noise ratio ? Discuss the importance of SNR in radio receivers. **(8 Marks)**

3. List the different method of FM generation. **(4 Marks)**