

S.B. Roll No.....

**NETWORK FILTER AND TRANSMISSION LINES**  
**4<sup>th</sup> Exam/ECE/3061/Jan'2022**  
**(FOR 2018 BATCH ONWARDS)**

**Duration: 1.15Hrs.**

**M.Marks:25**

**SECTION-A**

**Q1. Attempt any three questions.**

**3x5=15**

- i. Differentiate between Symmetrical and Asymmetrical networks with diagram.
- ii. What are attenuators? Explain with example.
- iii. What is a Lossless line? Also write the condition for the line to be Lossless.
- iv. Derive the relation between Decibel and Neper.
- v. Describe insertion losses in 2-Port networks
- vi. Write the properties of asymmetric networks.
- vii. Differentiate between one port and two port network.

**SECTION-B**

**Q2. Attempt any one question.**

**1x10=10**

- a. What do you mean by LPF, HPF, BPF and BSF? Explain with suitable examples.
- b. What are standing waves? Derive the relation between VSWR and reflection coefficient K.
- c. Differentiate between Active and Passive filters.
- d. Explain different types of Transmission Lines. Also write their applications.