S. B. Roll. No……

NETWORK FILTERS AND TRANSMISSION LINES
4th Exam/ECE/3061/Jun'2022
(For 2018 Batch Onwards)

Duration: 3Hrs. **M.Marks:75**

SECTION-A

Q1. Give answer in one line. **15x1=15**

a. Give full form of VSWR.
b. Define 2-port network.
c. Attenuation is the term that is exactly reverses of?
d. Name the primary constants of Transmission line.
e. Write full form of LPF.
f. Define Active network.
g. Write the condition for a line to become distortionless.
h. Write any one limitation of passive filters.
i. Name any two major losses in Transmission line.
j. Write the units of attenuation.
k. Name any one commonly used type of active filter.
l. In Crystal filters, which effect is used?
m. Write any one application of Transmission line.
n. Give one example of bilateral element.
o. Define Ladder network.

SECTION-B

Q2. Attempt any six questions. **6x5=30**

i. Describe Insertion loss in 2-port network.
ii. What are the disadvantages of Constant-K filters?
iii. Derive the relation between decibel and neper.
iv. Differentiate between Band pass filter and Band stop filter.
v. Explain the concept of Characteristic impedance.
vi. What is reflection in Transmission lines?
vii. Define attenuator and write its uses.
viii. What is meant by Line loading? Why is it done?

SECTION-C

Q3. Attempt any three questions. **3x10=30**

a. Explain the concept of impedance matching using Single Stub.
b. Define Filter. Give its classification and uses.
c. Explain the properties of asymmetrical network.
d. Explain different types of Transmission line.
e. Write a short note (**any two**) i) Standing wave ratio ii) m-derived filter iii) High pass filter