**Set- A**

**Rajasthan Institute of Engineering & Technology, Jaipur.**

**I Mid Term examination**

**Session: 2018-19**

**B. Tech. V Sem & Branch: Electronics & Communication Engineering**

**Subject with code: 5EC5A Microwave Engineering-I**

Time: 2 hrs. M.M.:20

**Instruction for students:**

1. No provision for supplementary answer book.
2. All questions carry equal marks.

Q.1 Explain propagation of wave in rectangular wave guide for TE mode.

Or

Q.1 Discuss about difference between wave guide and two conductor line in transmission line.

Q.2 Define Scattering matrix in microwave network analysis using an example.

Or

Q.2 Explain different type of modes in microwave with appropriate example.

Q.3 Write applications of microwave frequency bands in our society and industrial purpose.

Or

Q.3 Draw a table of source and their ABCD, Z or Y matrices.

Q.4 A transmission line has a characteristic impedance of 50+j0.01Ω and is terminated in a load impedance of 73-j42.5Ω. Calculate: (a) the reflection coefficient, (b)The standing wave ratio.

Or

Q.4 Write short notes on: i) Slot lines and ii) Planer lines.

**Set- B**

**Rajasthan Institute of Engineering & Technology, Jaipur.**

**I Mid Term examination**

**Session: 2018-19**

**B. Tech. V Sem & Branch: Electronics & Communication Engineering**

**Subject with code: 5EC5A Microwave Engineering-I**

Time: 2 hrs. M.M.:20

**Instruction for students:**

1. No provision for supplementary answer book.
2. All questions carry equal marks.

Q.1 A transmission line has the following parameters:

R = 2ohms/m, G = 0.5mho/m, f = 1GHz, L = 8nH/m,

C = 0.23pF. Calculate: (a) The Characteristic impedance

(b) The propagation constant.

Or

Q.1 Write list of microwave connectors with their uses.

Q.2 Differentiate between slot line and planer line in tabular form.

Or

Q.2 Explain propagation of wave in rectangular wave guide for TM mode.

Q.3 Write differences between wave guide and two conductor line in tabular form.

Or

Q.3 Write short notes on: (i)S-matrices (ii)List of microwave Frequency bands with their band width.

Q.4 Describe impedance and admittance matrices using an appropriate example.

Or

Q.4 Describe about dominant mode of propagation with necessary conditions.