



**Shri Shankaracharya Institute of Professional Management & Technology**  
**Department of Electronics and Telecommunication Engineering**

Class Test – I Session- July– Dec, 2022 Month- November

**Sem- ET&T 7<sup>th</sup> Subject- RF and Microwave Engineering – D028711(028)**

Time Allowed: 2 hrs Max Marks: 40

Note: - Attempt any 5 question. All questions carry equal marks.

Q. NO.	Questions	Marks	Levels of Bloom's taxonomy	COs
1.	What are the limitations and Remedy of conventional tubes at microwave frequency	[8]	Remembering	CO3
2.	Explain the working principle and characteristics of 2 cavity Klystron.	[8]	Understanding	CO3
3.	Derive the expression for electronic efficiency of a reflex klystron oscillator	[8]	Analyzing	CO3
4.	Explain the principle of Magnetron and derive the expression of Magnetic field at which the electron just grazes the surface of anode return to cathode	[8]	Understanding	CO3
5.	Explain Impedance matching using discrete components.	[8]	Understanding	CO2
6.	Discuss T and Pi Matching Networks in detail.	[8]	Remembering	CO2
7.	Write a short note on Microstrip Line Matching Networks	[8]	Understanding	CO2



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**Sem- ET&T 7<sup>th</sup> Subject- Instrumentation & IoT – D028712(28)**  
 Time Allowed: 2 hrs Max Marks: 40

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Q. NO.	Questions	Marks	Levels of Bloom's taxonomy	COs
1.	Discuss the classification of transducer in detail.	[8]	Understanding	CO1
2.	Explain the working & construction of LVDT with help of diagram.	[8]	Understanding	CO1
3.	Derive expression for Gauge factor of a strain gauge.	[8]	Understanding	CO1
4.	Describe the construction & principle of operation of a resistive pressure transducer. Mention its applications.	[8]	Understanding	CO1
5.	Explain the construction, working, advantages and limitations of U-tube double column manometer.	[8]	Understanding	CO2
6.	Explain the working of a piezoelectric device. Give its application, advantages & disadvantages.	[8]	Understanding	CO2
7.	Discuss about photo electric transducer.	[8]	Understanding	CO2

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Class Test – I Session- July. – Dec, 2022 Month- November  
**Sem- 7<sup>th</sup> Subject- Wireless Communication - D028713(028)**

Time Allowed: 2 hrs Max Marks: 40

*Note: - Attempt any 5 question. All questions carry equal marks.*

Q. NO.	Questions	Marks	Levels of Bloom's taxonomy	COs
1.	Explain the history and technical details of 3G.	[8]	Understanding	CO1
2.	Explain the features, Speed & application of 4G.	[8]	Understanding	CO1
3.	Explain the evolution of Mobile Radio Communication.	[8]	Understanding	CO1
4.	Explain the Hand-Off mechanism of cellular communication system.	[8]	Understanding	CO2
5.	Explain in detail effective Channel Assignment Strategies.	[8]	Understanding	CO2
6.	Explain Microcell Zone concept for improving capacity of cellular system	[8]	Understanding	CO2



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Q. NO.	Questions	Marks	Levels of Bloom's taxonomy	COs
1.	Explain two transistor analogy of SCR. Derive the expression of anode current in two transistor analogy.	[8]	Understanding	CO1
2.	What is the difference between Symmetric & Asymmetric IGBT. Explain the working of Asymmetric IGBT.	[8]	Understanding	CO1
3.	With help of neat sketch & waveform. Explain Dynamic turn on & off switching characteristics of SCR.	[8]	Understanding	CO2
4.	With help of neat sketch & waveform. Explain the working of single phase full wave converter using RLE load.	[8]	Understanding	CO2
5.	Describe the different modes of operation of a thyriston with the help of its static VI characteristics.	[8]	Understanding	CO1
6.	Describe Impulse Commutation with appropriate circuit diagram & wave form.	[8]	Understanding	CO2

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Class Test – I Session- July. – Dec, 2022 Month- Nov

Sem- ET&T 7<sup>th</sup> sem Subject- Entrepreneurship Essential - D000741(033)

Time Allowed: 2 hrs Max Marks: 40

Note: - Attempt any 5 question. All questions carry equal marks.

Q. NO.	Questions	Marks	Levels of Bloom's taxonomy	COs
1.	Define Entrepreneurship. What are the requirements to be an Entrepreneur.	[8]	Understanding	CO1
2.	Describe the growth of Entrepreneurship in India.	[8]	Understanding	CO1
3.	Explain rural and urban Entrepreneurship.	[8]	Understanding	CO1
4.	Describe Government's policy actions towards Entrepreneurial motivation.	[8]	Remembering	CO2
5.	Explain Maslow theory of Motivation.	[8]	Remembering	CO2
6.	Illustrate McClelland's Human Motivation Theory	[8]	Understanding	CO2



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