



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

Class Test – I Session- July– Dec, 2023 Month- October

Sem- ET&T 7th Subject- RF and Microwave Engineering – D028711(028)

Time Allowed: 2 hrs Max Marks: 40

Note: - Attempt any 5 question. All questions carry equal marks. Attempt atleast 1 question from each CO

Q. NO.	Questions	Marks	Levels of Bloom's taxonomy	COs
1	Explain all the low frequency parameters in brief.	[8]	Remembering	CO1
2	Explain the RF behaviour of Resistors, Capacitors and Inductors.	[8]	Remembering	CO1
3	Explain the working principle and characteristics of 2 cavity Klystron.	[8]	Understanding	CO3
4	Derive the expression for electronic efficiency of a reflex klystron oscillator	[8]	Analyzing	CO3
5	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
6	Explain Impedance matching using discrete components.	[8]	Understanding	CO2
7	Discuss T and Pi Matching Networks in detail.	[8]	Remembering	CO2
8	Write a short note on Microstrip Line Matching Networks	[8]	Understanding	CO2



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Class Test – I Session- July– Dec, 2023 Month- October

Sem- ET&T 7th Subject- Instrumentation & IoT – D028712(28)

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 selection criterion for sensors?	[8]	Remembering	CO1
2.	With neat diagram explain LVDT. Also explain its advantages and disadvantages and uses.	[8]	Understanding	CO1
3.	Define strain gauge. What are the major types of strain gauge? Explain any one of them.	[8]	Remembering& 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.	A force of 8 newton is impressed upon a piezoelectric crystal having dimensions of 6 mm × 6 mm× 1.5 mm thick for the crystal materials, Charge sensitivity = 140×10^{-12} C/N Primitivity = 12×10^{-9} N/m Modulus of elasticity = 11.5×10^6 N/m ² Make calculations for the voltage generated ,capacitance & strain introduced in the crystal.	[8]	Applying	CO2



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Class Test – I Session-July-Dec, 2023 Month- October

Sem- ET&T 7th Subject- Power Electronics D028735(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 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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Department of Electronics and Telecommunication Engineering

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Sem- ET&T 7th Subject- Power Electronics D028735(028)

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Class Test – I Session- July– Dec, 2023 Month- October

Sem- ET&T 7th 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.	Give comparison between different wireless communication system	[8]	Analyzing	CO1
2.	Explain the evaluation of mobile communication	[8]	Analyzing	CO1
3.	Explain about the third generation wireless communication networks.	[8]	Understanding	CO1
4.	Explain WiMax technology and its architecture	[8]	Applying	CO1
5.	Describe hand-off mechanism strategies of cellular communication system.	[8]	Understanding	CO2
6.	Write notes on trunking and grade of service.	[8]	Applying	CO2
7.	Explain how coverage and capacity in cellular system can be improved.	[8]	Applying	CO2

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Class Test – I Session- July-Dec, 2023 Month- October

Sem- ET&T 7th Subject- Entrepreneurship Essentials D000741(033)

Time Allowed: 2 hrs Max Marks: 40

Note: - Q.1 is compulsory and attend any 4 from 2,3,4,5,6.

Q. NO.	Questions	Marks	Levels of Bloom's taxonomy	COs
1.	Describe the motivation theories- Maslow's Need Hierarchy theory.	[8]	Understanding	CO2
2.	Discuss about the requirement to be an entrepreneur.	[8]	Understanding	CO1
3.	Explain the role of women in entrepreneurship.	[8]	Apply	CO1
4.	What is the role of Entrepreneurship Development program to help in various section of society .	[8]	Apply	CO2
5.	What are govt. policy action towards entrepreneurial motivation	[8]	Apply	CO2
6.	How entrepreneurship help in growth of India.	[8]	Apply	CO1



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Class Test – I Session- July-Dec, 2023 Month- October

Sem- ET&T 7th Subject- Entrepreneurship Essentials D000741(033)

Time Allowed: 2 hrs Max Marks: 40

Note: - Q.1 is compulsory and attend any 4 from 2,3,4,5,6.

Q. NO.	Questions	Marks	Levels of Bloom's taxonomy	COs
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2.	Discuss about the requirement to be an entrepreneur	[8]	Understanding	CO1
3.	Explain the role of women in entrepreneurship.	[8]	Apply	CO1
4.	What is the role of Entrepreneurship Development program to help in various section of society .	[8]	Apply	CO2
5.	What are govt. policy action towards entrepreneurial motivation	[8]	Apply	CO2
6.	How entrepreneurship help in growth of India.	[8]	Apply	CO1