

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)
Gundlapochampally (H), Maisammaguda (V), Medchal (M), Medchal-Malkajgiri (Dist), Hyderabad

IV B.TECH II SEMESTER SUPPLEMENTARY EXAMINATIONS, JUNE - 2019Subject: **RADAR Systems**

Branch: ECE

Time: 3 hours

Max. Marks: 60

PART – AAnswer **ALL** questions of the following**5x2Marks=10 Marks**

1. Explain the effect of weather on Radar.
2. What are the limitations of power leakage in a Radar transmitter?
3. What is the principle of the phase comparison monopulse tracking radar technique?
4. Write functions of phase shifters in a phased array antenna.
5. What is the need of delay line cancellers

PART-BAnswer any **FIVE** Questions of the following**5x10 Marks= 50Marks**

1. a) By applying statistical noise theory, derive the signal to noise ratio and hence expression for probability of detection.
b) What are the precautions to be taken to minimize false alarm?
2. Write short notes on the following:
a) Range and Doppler measurement of a target using a FM-CW radar.
b) Unwanted signals and the measurement errors in FM altimeter.
3. a) What are effects of receiver bandwidth in CW radar?
b) Mention salient features of FMCW radar.
4. a) What is the need of full wave rectifier in delay line canceller?
b) Describe the operation of MTI Radar with power oscillator transmitter.
5. a) Define tracking in range and explain the split gate tracker method.
b) Explain the working of monopulse radar with the help of a block diagram.
6. a) Explain the principle and characteristics of a matched filter. Hence derive the expression for its frequency response function
b) What is a duplexer and describe a typical duplexer with a schematic diagram.
7. Write short notes on any two of the following
a) If the pulse repetition frequency is 10KHZ, calculate the maximum unambiguous range?
b) Explain how tracking is achieved using radar?
c) Write a short note on Noise temperature
8. Discuss how integration of Radar pulses improves SNR with clear mathematical expressions.

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)
Gundlapochampally (H), Maisammaguda (V), Medchal (M), Medchal-Malkajgiri (Dist), Hyderabad

IV B.TECH II SEMESTER SUPPLEMENTARY EXAMINATIONS, JUNE-2019

Subject: Green Buildings

Branch: ECE

Time: 3 hours

Max. Marks: 60

PART-A

Answer **ALL** questions of the following

5x2Marks=10 Marks

1. What is life cycle assessment (LCA)?
2. Detail the team responsibilities and controls of green building Constructions?
3. What are specification of interms of energy in India?
4. What are the Benefits of Green Buildings Quality?
5. What are the components of building cost as per CBRI?

PART-B

Answer any **FIVE** Questions of the following

5x10 Marks= 50Marks

1. a) What are the characteristics of a Green building material?
b) How to develop construction project specifications that support green building?
2. a) Briefly discuss the design and construction relationships of green building process.
b) Write the different strategies of site and landscapes in the construction of green Buildings.
3. a) Best Practices for indoor environmental quality
b) What are the parameters involved in constructing a green building?
4. a) What are the future directions in construction of green buildings?
b) Explain in detail about economic benefits of green buildings?
5. a) Why do green buildings cost more than traditional buildings?
b) Write a case study on green building located in Hyderabad, CII, IGBC.
6. Briefly describe the tools for building assessment?
7. Explain the process of Green Buildings?
8. Explain the water cycle procedure in Green Buildings?

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)
Gundlapochampally (H), Maisammaguda (V), Medchal (M), Medchal-Malkajgiri (Dist), Hyderabad

IV B.TECH II SEMESTER SUPPLEMENTARY EXAMINATIONS, JUNE-2019Subject: **ENTREPRENEURSHIP SKILLS**Branch: **Common to CE, ME, ECE, EEE, CSE & MINING****Time: 3 hours****Max. Marks: 60****PART – A**Answer **ALL** questions of the following**5x2Marks=10 Marks**

1. What is the difference between entrepreneur and entrepreneurship?
2. List out the characteristics of a typical entrepreneur.
3. What is entrepreneurial motivation?
4. Give a note on IPR.
5. Briefly discuss about entrepreneurial imagination and creativity.

PART-BAnswer any **FIVE** Questions of the following**5x10 Marks= 50Marks**

1. Discuss the role of entrepreneurs in the development of Indian Economy.
2. Give a brief account of the challenges of new venture startups encountered by the potential entrepreneurs.
3. Elaborate on the nature of corporate entrepreneurship.
4. What are the entrepreneurial motivations that encourage the entrepreneurs to set up the enterprises?
5. Discuss the process of identification an entrepreneurial ventures.
6. Define entrepreneurship? What are the new trends you have noticed in entrepreneurship during 21st century?
7. a) What are the objectives of trademark? What benefits does a registered trademark offer to its owner?
b) Creativity can be developed in a number of ways - explain.
8. Write short notes on any two of the following:
 - a) Entrepreneurial stress.
 - b) Difference between intrapreneur and entrepreneur.
 - c) Role of imagination in entrepreneurship

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)
Gundlapochampally (H), Maisammaguda (V), Medchal (M), Medchal-Malkajiri (Dist), Hyderabad

IV B.TECH II SEMESTER SUPPLEMENTARY EXAMINATIONS, JUNE-2019Subject: **Air Pollution and Control**Branch: **Common to ME & ECE****Time: 3 hours****Max. Marks: 60****PART-A**Answer **ALL** questions of the following**5x2Marks=10 Marks**

1. What is air pollution? Write the causes for it.
2. Write the applications in the removal of gases like SO_x , NO_x , CO , HC in air pollution?
3. Write about plume rise models?
4. Write the advantages of gravitational settling chambers.
5. List out the in-plant control measures for thermal power plants.

PART-BAnswer any **FIVE** Questions of the following**5x10 Marks= 50Marks**

1. a) Green House effect.
b) Effect of air pollutants on materials.
2. a) Combustion – air pollution.
b) Hydrocarbon removal.
3. a) Describe how humidity influences the pollution potential.
b) Write short notes on the impact of wind speed and direction on pollutants dispersion.
4. a) What is wet scrubber and the working procedure of it with a neat sketch?
b) What are the different Settling chambers to remove Particulate Matter (PM)? Explain it.
5. Write short notes on any two of the following
 - a) NO
 - b) What are the natural sources of air pollution?
 - c) Wind speed on plume behavior.
6. Explain about effect of air pollutants on man?
7. What is the importance of thermo dynamics of combustion?
8. What is the importance of radiation inversion and subsidence inversion?