

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 REGULAR END EXAMINATIONS, APRIL-2019Subject: Utilization of Electrical Energy

Branch: EEE

Time: 3 hours

Max. Marks: 60

PART – A

Answer ALL questions of the following

5x2Mark=10 Marks

1. What are the various methods of welding?
2. State Inverse square law and Lambert's cosine law of illumination
3. Why electric traction is preferred to other types of traction?
4. Define adhesive weight.
5. Define group drive?

PART-B

Answer any FIVE Questions of the following

5x10 Marks= 50Marks

1. a) What are the characteristics of heating element? Explain the design of heating element in resistance heating.
b) Explain in detail about the power supply given for electrolytic process.
2. a) What are the types of different lighting schemes?
b) A lamp with mean spherical power of 1000 is suspended at a height of 1.2 m. Determine
(i) Total flux emitted by the lamp (ii) The Illumination just below the lamp.
3. a) Explain in detail the systems of track electrification.
b) Give a detail Comparison Between A.C and D.C Traction .
4. a) Draw and explain the speed time curves for urban and main line service.
b) A goods trains weighing 300 tonnes is to be hauled by a locomotive up a gradient of 2% with an acceleration of 1 kmphps. Coefficient of adhesion is 20%. Track resistance = 45 W/To and effect of rotational masses is 15% of dead weight. If axle load is not to exceed by 20 tonnes, determine the weight of locomotive and number of axles
5. Explain the concept of electric drive vehicle and its types.
6. Compare different welding equipment used under both AC and DC welding.
7. Explain about photometry.
8. Write short notes on any **TWO** of the following
 - a) Dead weight and accelerating weight.
 - b) Spot welding and Seam welding.
 - c) Plugging braking method.

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IV B.TECH II SEMESTER REGULAR END EXAMINATIONS, APRIL-2019

Subject: Renewable Energy Sources

Branch: **EEE**

Time: **3 hours**

Max. Marks: **60**

PART – A

Answer **ALL** questions of the following

5x2Mark=10 Marks

1. Define altitude angle, zenith angle and Azimuth angle
2. What are the advantages of concentrating collectors?
3. How are the biogas plants classified?
4. Explain how electrical energy can be generated from tidal plant?
5. Label the Carnot cycle on PV diagram?

PART-B

Answer any **FIVE** Questions of the following

5x10 Marks= 50Marks

1. a) Discuss on potential of renewable energy sources with reference to India.
b) Explain the working of sunshine recorder with the help of neat sketch
2. Explaining all necessary features, formulate the expression for calculating temperature distribution and collection efficiency of a solar pond
3. a) Explain with the schematic diagram the working of horizontal axis wind mill.
b) Describe the working of floating dome type biogas plant and state its advantages.
4. a) Briefly describe different analytical methods to estimate geothermal potential.
b) What is the source of tidal energy? What is the minimum tidal range required for the working of a tidal plant? How much is the potential in tides?
5. a) What is the principle of MHD power generation and discuss about the main parts of an MHD generator?
b) Explain the concept of joule Thompson effect and its applications.
6. Explain in detail the different types of solar energy measuring instruments
7. List out the advantages of concentrating collectors over flat plate collectors?
8. Write short notes on any **TWO** of the following.
(a) What is solar constant?
(b) What is Betz criteria?
(c) Applications solar energy.

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IV B.TECH II SEMESTER REGULAR END EXAMINATIONS, APRIL - 2019Subject: Entrepreneurship Skills

Branch: Common to CE, EEE, ME, ECE, CSE & MINING

Time: 3 hours

Max. Marks: 60

PART – A

Answer ALL questions of the following

5x2Mark=10 Marks

1. What is the difference between entrepreneur and entrepreneurship?
2. How does the entrepreneurial journey take place?
3. Give a note on IPR
4. Give a note on trade secrets.
5. What are the critical factors for new venture development?

PART-B

Answer any FIVE Questions of the following

5x10 Marks= 50Marks

1. Discuss the role of entrepreneurs in the development of Indian Economy.
2. Discuss about problems of women in entrepreneurship in India.
3. Elaborate on the methods to initiate new ventures.
4. Define trademarks and explain its process in detail with few examples.
5. Discuss on the 21st century trends in entrepreneurship.
6. What are the entrepreneurial motivations that encourage the entrepreneurs to set up the enterprises?
7. As a potential entrepreneur, how would you construct a business plan to satisfy your banker?
8. Write short notes on any two of the following:
a) Patent b) Trade secrets related to entrepreneurship c) Corporate entrepreneurial mind-set.

Code No.: 50124

MR15-2015-16 Batch

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IV B.TECH II SEMESTER REGULAR END EXAMINATIONS, APRIL-2019

Subject: Disaster Management

Branch: Common to EEE, ME, ECE, CSE & MINING

Time: 3 hours

Max. Marks: 60

PART – A

Answer ALL questions of the following

5x2Mark=10 Marks

1. What are socio economic hazards? Give an example.
2. What is an avalanche and mention its types.
3. Enlist the immediate relief measures in Disaster management
4. Define UNESCO and its function?
5. What is Indian Wildlife protection act

PART-B

Answer any FIVE Questions of the following

5x10 Marks= 50Marks

1. What is Disaster Management? Write an account on different approaches to disaster management
2. Explain causes and distribution of volcanoes and the hazardous effects of volcanic eruptions.
3. a) Explain in brief Post disaster stage rehabilitation
b) Explain in brief about Pre disaster stage
4. Explain the monitoring management of
 - a) World meteorological organization
 - b) Remote Sensing.
5. a) Write short notes on Ecological planning for sustainability
b) Write short notes on Role of Zillaparishad in Disaster Management.
6. Explain about the ecosystem approach and perception approach?
7. Distinguish between Global Sedimentation problems and Regional Sedimentation Problems?
8. Write short notes on any TWO of the following.
 - a) Coastal Disaster
 - b) Ecological planning for sustainability
 - c) Environmental policies in India