

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-2019

Subject: World Literature

Branch: ME

Time: 3 hours

Max. Marks: 60

PART – A

Answer ALL questions of the following

5x2Mark=10 Marks

1. The line 'Earth will not share the rafter's envy' was taken from which poem.
2. Name the poetry collection of Christopher Kelen's poems in Australian literature.
3. What is the principal theme of Maya Angelou's "Caged Bird?"
4. Summarize the poem "I Wandered Lonely as A Cloud" (Understand)
5. What do you know about Mahasweta Devi?

PART-B

Answer any FIVE Questions of the following

5x10 Marks= 50Marks

1. Explain the Yoruba naming tradition 'Isomoloruko.'
2. Describe the rising action of the story "Roommates." What is the high point of this story
3. a) Bring out the image of nature in "The Caged Bird."
b) "Tossing their heads . . . Waves in glee" how do these lines contribute to the tone of the poem?
4. Analyze the poem "Fragment" by Herta Muller. What feelings does it rouse in the readers?
5. Most of Pritam's poems have a psychological charge, but more or less speech-like diction and syntax. Elucidate.
6. Draw the pathetic events that have taken place during Nigerian Civil war from the poem "A Mother in a Refugcc camp"
7. Differentiate between and Australian Literatures and European Literatures.
8. Write short notes on any **TWO** of the following.
 - a) Earth's honeyed milk, wine of the only rib. Now roll your tongue in honey till your cheeks are Swarming honeycombs—your world needs sweetening, child. What's the meaning of these lines in the poem dedication by Wole Soyanka.
 - b) Write a brief note on the poetry of Henry Lawson.
 - c) What is the meaning of the poem 'Dark between Empires 'by Christopher Kelen.

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IV B.TECH II SEMESTER REGULAR END EXAMINATIONS, APRIL-2019Subject: Nano Chemistry

Branch: ME

Time: 3 hours

Max. Marks: 60

PART – A

Answer ALL questions of the following

5x2Mark=10 Marks

1. Illustrate the importance of nanochemistry?
2. How do thermal properties of nanomaterials vary from bulk to nano scale?
3. Which of the electrons can be determined in SEM, TEM?
4. What is fullerene? Give various examples of fullerenes?
5. Why nanoparticles show good catalytic activity?

PART-B

Answer any FIVE Questions of the following

5x10 Marks= 50Marks

1. What kind of Nano Particles can be prepared by Chemical Vapour Deposition (CVD)? What are the limitations of CVD?
2. a) Comment on the unique thermal properties of nanomaterials.
b) Write a note on photoluminescence and electroluminescence.
3. Elucidate the schematic diagram, principles, working method and applications of AFM?
4. a) Describe about graphene.
b) What are Nanostructured crystals? Discuss with a pair of examples 5.
5. How are nanomembranes used to remove high concentrated salts from drinking water? Explain.
6. Explain hydrothermal method in production of nanomaterials?
7. Give brief account of energy bands and gaps in semiconductors?
8. Write short notes on any TWO of the following.
 - a) Functionalized Fullerenes;
 - b) Any three properties of nanomaterials
 - c) Research need in nanotechnology

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IV B.TECH II SEMESTER REGULAR END EXAMINATIONS, APRIL-2019Subject: Nano Technology

Branch: ME

Time: 3 hours

Max. Marks: 60

PART – A

Answer ALL questions of the following

5x2Mark=10 Marks

1. Define the term anisotropy.
2. Why SiC requires sintering justify ?
3. List out important nanomaterials.
4. Explain the use of Nano-probes in analytical applications.
5. What are the applications of nanotribology

PART-B

Answer any FIVE Questions of the following

5x10 Marks= 50Marks

1. a) Discuss the concept of isotropic and Antistropic based micro-fabrication with a neat sketch?
b) Discuss the concept of VLS mechanism?
2. a) Discuss in detail the concept of photoelectron spectroscopy ?
b) Discuss the concept of switching glasses with nano particles ?
3. a) Discuss the principle and construction of scanning electron microscopy.
b) Particle size determination in TEM?
4. a) Discuss the self-assembly of nanostructures.
b) Discuss the challenges in nanobiotechnology.
5. Briefly discuss about various Nano materials used in Diagnostics and Therapeutic applications.
6. List out challenges faced by Nanotechnology and what are the applications of gold particles?
7. What are the effects of nano scale dimension on Mechanical properties?
8. Write short notes on any two of the following
 - a) Explain the principle of lithographically fabricated device with the help of neat sketch.
 - b) Discuss molecular Nano-mechanics?
 - c) Explain the sintering process of SiC.

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IV B.TECH II SEMESTER REGULAR END EXAMINATIONS, APRIL-2019Subject: Plant Layout and Material Handling

Branch: ME

Time: 3 hours

Max. Marks: 60

PART – A

Answer ALL questions of the following

5x2Mark=10 Marks

1. List out two advantages and limitations of a different layout?
2. Write short notes on CRAFT
3. Define the terms, unit and logistics.
4. Identify difficulties in material handling.
5. List out elements of material handling systems

PART-B

Answer any FIVE Questions of the following

5x10 Marks= 50Marks

1. Write short notes on product layout and how product layout differs from process layout.
2. a) Explain the fixed position layout with a neat Sketch (7)
b) Write some of the examples of fixed position layout (3)
3. a) Classify material handling equipment based on by their design features and working area and explain each of them? (6)
b) Discuss the role of material handling systems in improving the productivity of company. (4)
4. a) Design a good material handling system for a continuous production in a large manufacturing industry?
b) What factors are considered in the selection of materials handling systems?
5. a) Describe an AGV? What are the various types of AGVs? Write about methods to control AGVs?
b) Define a Conveying system with a neat sketch ? (7+3)
6. What are the principles to be followed while grouping machines in process layout?
7. What are the methods employed for group technology layout?
8. Write short notes on any **TWO** of the following
 - a) Escalators and Excavators
 - b) Modern trends in material handling
 - c) Steps involve in the heuristic procedure of ALDEP.

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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

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

Subject: Air Pollution & Control

Branch: common to ME, ECE & Mining

Time: 3 hours

Max. Marks: 60

PART – A

Answer ALL questions of the following

5x2Mark=10 Marks

1. Define ambient air quality.
2. Computation of Combustion.
3. How the wind rose diagram helps to predict air pollution.
4. List out the particulate control equipments
5. What is air quality management?

PART-B

Answer any FIVE Questions of the following

5x10 Marks= 50Marks

1. Give the classification of air pollutants with examples. Describe the impacts of major air pollutants on human health.
2. Write the impact of emission of NO_x and SO_x into the atmosphere
3. Explain different lapse rates and explain correlation to air quality.
4. Explain the working principle of Electrostatic precipitators. Mention its advantages and disadvantages
5. Write the comparison of standards of emission of air pollutants and its exposure.
6. Explain about Acid Rains
7. Explain the formation of carbon monoxide?
8. Write short notes on any two of the following
 - a) Ozone depletion
 - b) Wind rose diagram
 - c) Automobile pollution

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1. What is the significance of the song, 'Beasts of England' in Animal Farm?
2. How does the meaning of a text change, when we reread it?
3. Write briefly about the origin of the Animalism theory and its importance.
4. Elaborate the three C's of effective writing.
5. Explain the term Deconstruction.

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

1. Interpret the poem, 'I am the song.'

I am the song that sings the bird.
 I am the leaf that grows the land.
 I am the tide that moves the moon.
 I am the stream that halts the sand.
 I am the cloud that drives the storm.
 I am the earth that lights the sun.
 I am the fire that strikes the stone.
 I am the clay that shapes the hand.
 I am the word that speaks the man.

Charles Causley

2. How does *Animal Farm* critique the flaws of humanity?
3. Why do you think George Orwell choose an animal farm as a setting for his novel? Justify the title of the novel.
4. a) 'The only good human being is a dead one.' Explain in the context of Animal Farm.
b) Analyze the principles of Animalism in Animal Farm?
5. Explain briefly the following approaches to literary criticism.
a. Super ego b. Mythological Criticism c. Psychological Criticism
d. Critique e) Implied reader and actual reader
6. What effect did Snowball's expulsion have on the farm?
7. What qualities allow the pigs to gain power in the first place, and what qualities enable them to keep power? Are these different?
8. Write short notes on any **TWO** of the following
a. Does Snowball represent a morally legitimate political alternative to the corrupt leadership of Napoleon?
b. Write an analytical essay on "Impact of Technology on Human Relationships".
c. Major conflicts in Animal Farm are expressions of the underlying tension between the exploited and exploiting classes- Explain

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IV B.TECH II SEMESTER REGULAR END EXAMINATIONS, APRIL-2019Subject: Nano MaterialsBranch: **Common to CE & ME**Time: **3 hours****Max. Marks: 60****PART – A****Answer ALL questions of the following****5x2Mark=10 Marks**

1. Write two advantages of bottom-up approach?
2. Write any two applications of semiconductor nanocrystals
3. Distinguish between SEM and TEM characterizations?
4. What is electron diffraction?
5. Discuss any two applications of Carbon nanotubes.

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

1. a) Describe laser pyrolysis method
b) What is Ball milling synthesis method? Explain Ball milling in detail?
2. a) Explain photo chemical synthesis method with neat sketch.
b) Explain Nano crystals of semiconductors?
3. a) Explain Chemical Vapor Deposition of Carbon Nanotube.
b) Distinguish between XRD, SEM and TEM.
4. What is EDAX? Explain the principle behind EDAX.
5. a) What are fullerenes? b) List any five applications of activated carbon
c) Briefly explain the properties of fullerenes.
6. What are advantages and disadvantages of Molecular beam Epitaxy
7. Explain Reduction of Nano materials by sodium borohydride.
8. Write short notes on any **TWO** of the following.
 - a) Quantum wire.
 - b) State the advantages and disadvantages of SEM.
 - c) Graphene.