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MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

B.Tech IV Year II Semester (R14) Regular End Semester Examinations – Apr 2018

(Regulations: R14)

SATELLITE COMMUNICATION

(Open Elective – Common to CE, EEE, ME, CSE)

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.
All parts of Q.no 1 are compulsory. In Q.no 2 to 6 answer either Part-A or B only

- | | | |
|-----------|--|-----|
| Q.1 | i. Define apogee and perigee. | 1M |
| | ii. List different types of satellite orbits. | 1M |
| | iii. What is a satellite system? | 1M |
| | iv. What is intermodulation? | 1M |
| | v. Define cloud attenuation. | 1M |
| | vi. List any two antennas used in satellite communication. | 1M |
| | vii. What is multi fading technique? | 1M |
| | viii. Write any two services provided by satellites. | 1M |
| | ix. What is orbital period? | 1M |
| | x. Abbreviate GPS. | 1M |
| <hr/> | | |
| Q.2(A) | Explain Kepler's three laws of Planetary motion. Define Argument of Perigee. | 10M |
| OR | | |
| Q.2(B) | Write about Equipment reliability and space qualification. | 10M |
| <hr/> | | |
| Q.3(A) | Explain TDMA frame structure with a neat diagram. | 10M |
| OR | | |
| Q.3(B) | Define multiple access technique? Write a short note on Analog transmission system with a block diagram. | 10M |
| <hr/> | | |
| Q.4(A) | With a neat diagram explain about the earth station transmitter. | 10M |
| OR | | |
| Q.4(B) | Write about Rain attenuation and depolarization concept. | 10M |
| <hr/> | | |
| Q.5(A) | Write a short note on INTELSAT and explain the salient features of INTELSAT. | 10M |
| OR | | |
| Q.5(B) | Explain about VSAT systems and network architectures with a neat diagrams. | 10M |
| <hr/> | | |
| Q.6(A) | Write a short note on (i) GPS C/A Code accuracy (ii) Radio and satellite navigation. | 10M |
| OR | | |
| Q.6(B) | What is GPS navigation system? Explain GPS position location principles. | 10M |

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B.Tech IV Year II Semester (R14) Regular End Semester Examinations – Apr 2018

(Regulations: R14)

SOFTWARE PROJECT MANAGEMENT

(Open Elective – Common to CE, EEE, ME, ECE)

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.
All parts of Q.no 1 are compulsory. In Q.no 2 to 6 answer either Part-A or B only

- | | | |
|-----------|--|-----|
| Q.1 | i. List out the basic steps in developing large scale program. | 1M |
| | ii. What is the role of reuse in software design? | 1M |
| | iii. What is artifact sets? | 1M |
| | iv. What are the software management life cycle phases? | 1M |
| | v. What is the role of administration in project organizations? | 1M |
| | vi. What is Metaprocess? | 1M |
| | vii. List out the quality indicators. | 1M |
| | viii. What is process flexibility? | 1M |
| | ix. What is build integration test? | 1M |
| | x. What is MTBF? | 1M |
| <hr/> | | |
| Q.2(A) | Explain the role of object oriented process to improve software economics. | 10M |
| OR | | |
| Q.2(B) | Explain the principles of Conventional Software Engineering. | 10M |
| <hr/> | | |
| Q.3(A) | How to achieve concurrence among the stake holders on the life cycle at Inception Phase? Explain with Evaluation criteria. | 10M |
| OR | | |
| Q.3(B) | Explain in detail about the workflow of iteration process. | 10M |
| <hr/> | | |
| Q.4(A) | Write about Iteration planning process. | 10M |
| OR | | |
| Q.4(B) | Explain in detail about the default roles in a software line –of business organizations. | 10M |
| <hr/> | | |
| Q.5(A) | Discuss in detail about the roles and responsibilities of software architecture team. | 10M |
| OR | | |
| Q.5(B) | Explain in detail about management indicators. | 10M |
| <hr/> | | |
| Q.6(A) | Write a short note on CCPDS-R
i. Risk Management ii. Component Evolution | 10M |
| OR | | |
| Q.6(B) | Explain in detail about the core metrics of CCPDS-R. | 10M |

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MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

B.Tech IV Year II Semester (R14) Regular End Semester Examinations – May 2018**IoT NETWORKS**

(Open Elective – Common to CE, EEE, ME, CSE)

Time: 3Hrs**Max Marks: 60**

Attempt all the questions. All parts of the question must be answered in one place only.
All parts of Q.no 1 are compulsory. In Q.no 2 to 6 answer either Part-A or B only

- | | | |
|-----|---|----|
| Q.1 | i. What are the advantages of smart grid? | 1M |
| | ii. What is smart city? | 1M |
| | iii. Expand BEEP. | 1M |
| | iv. What are the features of SOAP protocol? | 1M |
| | v. Give some names of IoT operating systems. | 1M |
| | vi. Expand IETF. | 1M |
| | vii. Give some examples of WAN. | 1M |
| | viii. What are the disadvantages in bus topology? | 1M |
| | ix. Give some applications of Galileo. | 1M |
| | x. What is EEPROM? | 1M |
-
- | | | |
|-----------|---|-----|
| Q.2(A) | Explain in detail about home automation with suitable diagram. | 10M |
| OR | | |
| Q.2(B) | Explain the working principle of smart grid technology with suitable example. | 10M |
-
- | | | |
|-----------|--|-----|
| Q.3(A) | Explain in detail about messaging protocols in web services. | 10M |
| OR | | |
| Q.3(B) | Explain in detail about discovery protocols in web services. | 10M |
-
- | | | |
|-----------|--|-----|
| Q.4(A) | Explain in detail about IoT connectivity architecture. | 10M |
| OR | | |
| Q.4(B) | Explain i) North Interface ii) South interface. | 10M |
-
- | | | |
|-----------|--|-----|
| Q.5(A) | Explain in detail about WAN. Also mention the advantages and disadvantages. | 10M |
| OR | | |
| Q.5(B) | Illustrate star topology with necessary diagrams. Mention their merits and demerits. | 10M |
-
- | | | |
|-----------|--|-----|
| Q.6(A) | Explain in detail about specifications of Galileo. | 10M |
| OR | | |
| Q.6(B) | Explain any one of the application of Arduino with suitable example. | 10M |

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MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

B.Tech IV Year II Semester (R14) Regular End Semester Examinations – April 2018

PRODUCT LIFECYCLE MANAGEMENT

(Open Elective – Common to CE, EEE, ECE, CSE)

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.
All parts of Q.no 1 are compulsory. In Q.no 2 to 6 answer either A or B only

Q.1	i. What is B-B?	1M
	ii. Name types of Bill of Materials.	1M
	iii. What tools we can use in PLM strategy?	1M
	iv. How do you explain the PLM vision?	1M
	v. Define PDM system.	1M
	vi. How do you visualise the product?	1M
	vii. Name any two roles of PLM in automotive industry.	1M
	viii. Is it requiring the change management for PLM? Justify your answer.	1M
	ix. What do you mean by data retrieval?	1M
	x. Define B-B E-Commerce.	1M
<hr/>		
Q.2(A)	Explain the opportunities and benefits of PLM.	10M
	OR	
Q.2(B)	Explain B to B, B to C forms of business.	10M
<hr/>		
Q.3(A)	Explain the basic points about PLM Vision.	10M
	OR	
Q.3(B)	List and explain any four characteristics of PLM.	10M
<hr/>		
Q.4(A)	Explain the importance of financial justification of PDM.	10M
	OR	
Q.4(B)	What are the advantages and limitations of PLM.	10M
<hr/>		
Q.5(A)	Discuss the PLM and its role in Electronics industries.	10M
	OR	
Q.5(B)	Name top companies uses PLM and explain any two of them.	10M
<hr/>		
Q.6(A)	Explain the product data management.	10M
	OR	
Q.6(B)	Discuss briefly about manufacturing operations management.	10M

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MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
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B.Tech IV Year II Semester (R14) Regular End Semester Examinations – April 2018

ENTREPRENEURSHIP

(Open Elective – Common to CE, EEE, ECE, CSE)

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.
All parts of Q.no 1 are compulsory. In Q.no 2 to 6 answer either A or B only

- Q.1
- | | |
|--|----|
| i. Write any two roles of Entrepreneurship in social responsibility of entrepreneurs | 1M |
| ii. What is Entrepreneurship? | 1M |
| iii. List any four launching formalities | 1M |
| iv. How do you plan organizational? | 1M |
| v. Write short note on franchising | 1M |
| vi. Explain any one method of record keeping. | 1M |
| vii. List any two issues related to choosing of location. | 1M |
| viii. Write any two common things in production and marketing management | 1M |
| ix. What is product pricing? | 1M |
| x. Define Inventory control | 1M |
-
- Q.2(A) Explain in detail the decision process of an entrepreneur. 10M
- OR
- Q.2(B) Discuss the common points between entrepreneur and manager. 10M
-
- Q.3(A) Identify various sources of ideas for new ventures. Discuss them in detail. 10M
- OR
- Q.3(B) How do you write and evaluate the business plan? Explain it in detail. 10M
-
- Q.4(A) List the financing resources for a new venture both in public and private sectors. Explain the procedures to obtain them. 10M
- OR
- Q.4(B) Discuss the features of joint ventures and franchising. Explain the procedure to evaluate the joint ventures and franchising. 10M
-
- Q.5(A) What are the types of layouts? Explain them in detail with a neat sketch. 10M
- OR
- Q.5(B) Explain the general issues related to selection of process layout. 10M
-
- Q.6(A) Explain any two advanced quality control methods. 10M
- OR
- Q.6(B) What factors should be taken into account in choosing the best distribution channel? 10M

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MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
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B.Tech IV Year II Semester (R14) Regular End Semester Examinations – April 2018

GROUND IMPROVEMENT TECHNIQUES

(Open Elective – Common to EEE, ME, ECE, CSE)

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.
All parts of Q.no 1 are compulsory. In Q.no 2 to 6 answer either A or B only

- | | | |
|--------|---|-----|
| Q.1 | i. How dewatering technique improves the ground | 1M |
| | ii. Define Grouting | 1M |
| | iii. What do you mean by Pre loading? | 1M |
| | iv. What is meant by lime column? | 1M |
| | v. Define Soil Stabilization | 1M |
| | vi. What are the various mechanism involved in lime Stabilization | 1M |
| | vii. Write various components of reinforced earth | 1M |
| | viii. Differentiate between geomembrane and geogrid | 1M |
| | ix. What is Under reamed pile? | 1M |
| | x. Define Prewetting. | 1M |
| <hr/> | | |
| Q.2(A) | Describe the Classification of ground modification techniques. | 10M |
| OR | | |
| Q.2(B) | Write the objectives of grouting. Discuss various methods of grouting. | 10M |
| <hr/> | | |
| Q.3(A) | i. Describe the classification of densification methods in soils. | 5M |
| | ii. Write a note on shallow compaction. | 5M |
| OR | | |
| Q.3(B) | i. What do you mean by stone column? What are the objectives of stone columns? | 5M |
| | ii. What do you mean by Pre loading? Write the objectives of Pre loading. | 5M |
| <hr/> | | |
| Q.4(A) | Explain mechanical stabilization of soils. | 10M |
| OR | | |
| Q.4(B) | Explain the stabilization of soils by cement. | 10M |
| <hr/> | | |
| Q.5(A) | What do you mean by reinforced earth? What are design principles of reinforced earth walls? | 10M |
| OR | | |
| Q.5(B) | List different types of Geo-synthetics and Write their applications in Construction field | 10M |
| <hr/> | | |
| Q.6(A) | Explain various methods of determination of swell pressure. | 10M |
| OR | | |
| Q.6(B) | Explain the various modification techniques of expansive soils | 10M |

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B.Tech IV Year II Semester (R14) Regular End Semester Examinations – Apr 2018

(Regulations: R14)

CLOUD COMPUTING

(Open Elective – Common to CE, EEE, ME, ECE)

Time: 3Hrs**Max Marks: 60**

Attempt all the questions. All parts of the question must be answered in one place only.
All parts of Q.no 1 are compulsory. In Q.no 2 to 6 answer either Part-A or B only

- | | | |
|-----------|--|--|
| Q.1 | i. What are the benefits of cluster computing?
ii. What is cloud computing?
iii. Brief Parallel Data Query (PDQ).
iv. Define cloud data center.
v. What is service oriented architecture?
vi. How the resources are shared between different service providers?
vii. Difference between XML and JSON message format.
viii. Name the various mobile operating system currently existing in market.
ix. Write the various Amazon DB services.
x. How the IoT devices are identified and represented in the cloud environment? | 1M
1M
1M
1M
1M
1M
1M
1M
1M
1M |
| OR | | |
| Q.2(A) | Write briefly about an overview on Service Oriented architecture. | 10M |
| Q.2(B) | Explain the following:
i) Vector processing
ii) Massively parallel processing systems | 5M
5M |
| OR | | |
| Q.3(A) | Describe the following:
i) What is the implementation issues regarding Software as a Service (SaaS)?
ii) Benefits of SaaS model. | 5M
5M |
| OR | | |
| Q.3(B) | Why On-Demand computing is felt as a popular enterprise model? Justify the reason for it. | 10M |
| OR | | |
| Q.4(A) | i) How the privacy protection is ensured in the cloud environment?
ii) What are the basics required for data privacy? | 5M
5M |
| OR | | |
| Q.4(B) | i) Describe Identity as a Service (IaaS) in detail.
ii) Explain Permissive federation in detail. | 5M
5M |
| OR | | |
| Q.5(A) | Explain in detail about the cloud services and model used in:
i) Face book
ii) Zoho suite | 5M
5M |
| OR | | |
| Q.5(B) | Discuss in detail the various YouTube players API in detail. | 10M |
| OR | | |
| Q.6(A) | Explain about the following:
i) Microsoft dynamic CRM
ii) CRM services | 5M
5M |
| OR | | |
| Q.6(B) | Explain the following:
i) Amazon S3 services.
ii) Microsoft Azure Services platform | 5M
5M |

***** END*****

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B.Tech IV Year II Semester (R14) Regular End Semester Examinations – April 2018

ENVIRONMENTAL IMPACT ASSESSMENT

(Open Elective – Common to EEE, ME, ECE, CSE)

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.

All parts of Q.no 1 are compulsory. In Q.no 2 to 6 answer either A or B only

- | | | |
|--------|---|-----|
| Q.1 | i. What is Environmental Impact Assessment (EIA). | 1M |
| | ii. Write two limitations of EIA. | 1M |
| | iii. Write any two causes of ground water quality issues. | 1M |
| | iv. Suggest any two soil remedial measures if the site is contaminated by development activity. | |
| | v. What are Floral Components in biological environment. | 1M |
| | vi. What do you mean by Barriers to Travel Corridors for wild life? | 1M |
| | vii. What is the purpose of audit protocol? | 1M |
| | viii. Write the advantages of environmental audit. | 1M |
| | ix. What is water Act in India? | 1M |
| | x. Who are the members of State Board constituted under Air Act. | 1M |
| <hr/> | | |
| Q.2(A) | i. Discuss the factors affecting E.I.A. | 5M |
| | ii. Explain the preparation of Environmental Base map. | 5M |
| | OR | |
| Q.2(B) | List out different EIA methods. Explain matrix method in detail. | 10M |
| <hr/> | | |
| Q.3(A) | Discuss the mitigation measures for soil and groundwater impacts. | 10M |
| | OR | |
| Q.3(B) | Give the procedure for prediction and assessment of impacts on surface water environment. | 10M |
| <hr/> | | |
| Q.4(A) | How to mitigate the potential impact on vegetation due to any project activity? | 10M |
| | OR | |
| Q.4(B) | Write a short note on cause and effects of deforestation. | 10M |
| <hr/> | | |
| Q.5(A) | i. Write the three main stages in Environmental Audit. | 5M |
| | ii. What is the Cost of environmental auditing? | 5M |
| | OR | |
| Q.5(B) | i. What are the objectives of environmental audit for an organization? | 5M |
| | ii. Write the onsite activities will be taking place during environmental audit. | 5M |
| <hr/> | | |
| Q.6(A) | Discuss the Wild Life Protection Act in India. | 10M |
| | OR | |
| Q.6(B) | Discuss a case study on EIA statement for Paper Industry. | 10M |

*** END***