AR16

CODE: 16OE4051 **SET-2**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI

(AUTONOMOUS)

IV B.Tech I Semester Supplementary Examinations, August-2021

PROJECT MANAGEMENT

Time: 3 Hours **Max Marks: 70**

Answer ONE Question from each Unit
All Questions Carry Equal Marks
All parts of the Question must be answered at one place

UNIT-I

1.	a)	Elaborate the basis of classification of Projects in Project Management.	7M
	b)	Define Strategy. Explain the concepts of Strategic Planning.	7M
		(OR)	
2.	a)	Elaborate the Tools for Identify Investment opportunities.	7M
	b)	Elaborate the concepts of Choice of Technology and Technical Arrangements in Technical Analysis.	7M

UNIT-II

3.	a)	Elaborate the Tools for Identifying Investment Opportunities.	7M
	b)	Elaborate the concepts of The Project Definition Rating Index (PDRI).	7M
		(OR)	
4.	a)	Elaborate the Social Cost Benefit Analysis and Explain the Rationale for SCBA in UNIDO Approach.	7M
	b)	How Financial Institutions Analyse the Risk in Projects.	7M

UNIT-III

5.	a)	Define Project Financing. Explain the key features of Project Financing.	7M
	b)	Define Preference share Capital. Explain the key features of Preference Shares.	7M
		(OR)	
6.	a)	What are Public-Private Partnerships?	7M
	b)	Define Bidding. Explain the Procedure and Irregularities in bidding award.	7M

UNIT-IV

7.	a)	Elaborately describe the 16 Best Practices for Project monitoring and controlling process.	7M
	b)	Describe the process of Monitoring and controlling activities.	7M
		(OR)	
8.	a)	Elaborate the steps in Development of Project Network.	7M
	b)	Elaborate the concepts of Time Estimation and Determination of Critical path.	7M

UNIT-V

9.	a)	Explain a) Job Analysis b) Job Description.	7M
	b)	Elaborate the 14 Principles of Management coined by Henry Fayol.	7M
		(OR)	
10.	a)	Describe the Essential Qualities of Manager.	7M
	b)	Define Recruitment. Explain the process Recruitment.	7M

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CODE: 16OE4052 **SET-1**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI

(AUTONOMOUS)

IV B.Tech I Semester Supplementary Examinations, August-2021

GEOGRAPHICAL INFORMATION SYSTEM

Time: 3 Hours **Max Marks: 70**

Answer ONE Question from each Unit
All Questions Carry Equal Marks
All parts of the Question must be answered at one place

UNIT-I

1.	a)	Explain the classification of maps based on the purpose?	7M
	b)	Explain the classification of map projections based on method of construction?	7M
		(OR)	
2.	a)	Explain the classification of maps based on scale?	7M
	b)	Define the term scale and explain various types of scales?	7M

UNIT-II

3.	a)	Define the term GIS and explain its components with figure?	7M
	b)	What are the different sources of data to input in to GIS?	7M
		(OR)	
4.	a)	What are the objectives of GIS?	7M
	b)	List out types of GIS and explain desktop GIS?	7M

UNIT-III

5.	a)	List out and explain various functions of DBMS?	7M
	b)	Explain about the Ordered Sequential Files?	7M
		(OR)	
6.	a)	Explain about the components of DBMS?	7M
	b)	Show the hierarchical database model with flowchart?	7M

UNIT-IV

7.	a)	What are the raster data coding and give examples?	7M
	b)	List out the various raster data models and explain with sketch?	7M
		(OR)	
8.	a)	Differentiate between raster data model and vector data model?	7M
	b)	List out the various vector data models and explain TIN model?	7M

UNIT-V

9.	a)	What are the levels of classification in land use and land cover?	7M
	b)	Explain how GIS techniques are used in Urban applications?	7M
		(OR)	
10.	a)	Explain how GIS techniques are used in agriculture studies?	7M
	b)	Explain how GIS techniques are used in forest studies?	7M

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CODE: 16OE4054 **SET-2**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI

(AUTONOMOUS)

IV B.Tech I Semester Supplementary Examinations, August-2021

FUNDAMENTALS OF ROBOTICS

Time: 3 Hours **Max Marks: 70**

Answer ONE Question from each Unit
All Questions Carry Equal Marks
All parts of the Question must be answered at one place

UNIT-I

1.	a)	What are the different types of automation? Explain them with examples	7M
	b)	Describe the classification of robots by control system.	7M
		(OR)	
2.	a)	What are the different types of gripper mechanisms used for robots? Explain any one of them in detail?	7M
	b)	What do you understand by degree of freedom (DOF)? Explain.	7M

UNIT-II

3.	a)	Discuss different types of actuators used for robots.	7M
	b)	Explain the working of a stepper motor.	7M
		(OR)	
4.	a)	Explain about Force sensors with neat sketch.	7M
	b)	What are the uses of sensor in robotics? List out different sensors used in robotics?	7M

UNIT-III

5.	a)	Write down the properties of transformation matrix.	4M
	b)	For the point [3 7 5] perform the following operations. Rotate 30^0 about x then translate 6 units along Y- axis.	10M
		(OR)	
6.	a)	What is homogenous transformation matrix? Explain.	4M
	b)	Determine the rotation matrix for a rotation of 45^0 about Y - axis, followed by a rotation by 120^0 about Z- axis and a final rotation of 90^0 about X-axis.	10M

UNIT-IV

7.		Explain different robot online programming methods in detail.	14M
		(OR)	
8.		Explain any two Robot offline programming techniques.	14M

UNIT-V

9.	a)	Discuss robot application for welding and machine loading.	7M
	b)	Discuss robot application for inspection and assembly.	7M
		(OR)	
10.	a)	Discuss the advantages and disadvantages of using robots in industry.	7M
	b)	Describe various factors to be considered for material handling applications.	7M

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CODE: 16OE4056 **SET-2**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI

(AUTONOMOUS)

IV B.Tech I Semester Supplementary Examinations, August-2021

INTRODUCTION TO CLOUD COMPUTING

Time: 3 Hours **Max Marks: 70**

Answer ONE Question from each Unit
All Questions Carry Equal Marks
All parts of the Question must be answered at one place

UNIT-I

1.	a)	What is Data Center Virtualization for Cloud Computing?	7M
	b)	Classify types of Distributed Computing Systems?	7M
		(OR)	
2.	a)	Explain about Centralized computing and parallel computing?	7M
	b)	Relate Memory, Storage, and Wide-Area Networking?	7M

UNIT-II

3.	a)	Explain about Software as a service	7M
	b)	List the advantages of cloud computing?	7M
		(OR)	
4.	a)	Describe about Infrastructure as a service	7M
	b)	Summarise the drawbacks of cloud computing?	7M

UNIT-III

5.	a)	Discuss the use of cloud services for Event Management?	7M
	b)	Explain the use of cloud services for collaborating on calendars?	7M
		(OR)	
6.	a)	How cloud services are used in project management?	7M
	b)	Illustrate the use cloud services in Task management?	7M

UNIT-IV

7.	a)	Explain virtual machine security in cloud computing?	7M
	b)	Summarise the Security Concerns for Cloud-Based Services?	7M
		(OR)	
8.	a)	Demonstrate the operating system security?	7M
	b)	Explain the cloud security risks?	7M

UNIT-V

9.	a)	Explain General parallel file systems	7M
	b)	Compare NoSQL and Database	7M
		(OR)	
10.	a)	Discuss about Google File system?	7M
	b)	Discuss about File system?	7M

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CODE: 16OE4055 **SET-2**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI

(AUTONOMOUS)

IV B.Tech I Semester Supplementary Examinations, August-2021

BASICS OF MOBILE COMMUNICATIONS

Time: 3 Hours **Max Marks: 70**

Answer ONE Question from each Unit
All Questions Carry Equal Marks
All parts of the Question must be answered at one place

UNIT-I

1.	a)	Develop the C/I ratio for omnidirectional antenna in mobile radio environment.	7M
	b)	Define co-channel interference reduction factor. Explain how it is related to cluster size of cellular system	7M

(OR)

2.	a)	Show the different cluster sizes available in mobile cellular communications and explain they effect the capacity of cellular systems	7M
	b)	Define reuse distance and explain how influences the operation of cellular system	7M

UNIT-II

3.	a)	Explain signal reflections in hilly terrains relating to antenna heights in cellular communications	7M
	b)	Explain area to area prediction model and draw the diagram of it	7M

(OR)

4.	a)	Develop the relation between power transmitted and received of cell site and mobile antenna in over water surface.	7M
	b)	Show the loss curves for different parts of tree in mobile cellular communications and explain briefly.	7M

UNIT-III

5.	a)	Elaborate the Omni and Non-Omni directional antennas in mobile cellular communications.	7M
	b)	Summarize how antennas in cellular system effect voice quality in cellular communications.	7M

(OR)

6.	a)	Explain handoff implementation process in cellular communications.	7M
	b)	Explain handoff algorithms and parameters in cellular communications.	7M

UNIT-IV

7.	a)	Explain numbering of channels in cellular communications.	7M
	b)	Explain dynamic and static channel assignment techniques in cellular communications.	7M

(OR)

8.	a)	Show the frequency management chart and explain it	7M
	b)	Explain set up channels and control channels and voice channels	7M

UNIT-V

9.	a)	Explain GSM channels and registers in architecture.	7M
	b)	Explain how capacity can be increased using TDMA than CDMA	7M

(OR)

10.	a)	Distinguish CDMA and TDMA in wireless communications	7M
	b)	Explain the operation of CDMA technology in wireless communications	7M

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CODE: 16OE4057 **SET-2**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI

(AUTONOMOUS)

IV B.Tech I Semester Supplementary Examinations, August-2021

INTRODUCTION TO DBMS

Time: 3 Hours **Max Marks: 70**

Answer ONE Question from each Unit
All Questions Carry Equal Marks
All parts of the Question must be answered at one place

UNIT-I

1.	a)	Differentiate between File Systems and Database systems.	10M
	b)	Explain the different Data Models in DBMS.	4M
		(OR)	
2.		With a neat diagram, explain the structure of Database Management System.	14M

UNIT-II

3.	a)	Discuss in detail about the concepts of ER model with suitable examples.	7M
	b)	Write and explain the structure of SQL SELECT, WHERE and DELETE statements with suitable example.	7M
		(OR)	
4.	a)	Write a short notes on i) Not Null ii) Primary key iii) Foreign Key	6M
	b)	Write short notes on i) Attribute ii) Entity iii) Derived attribute iv)Multi-valued attribute **v)** Composite attribute	8M

UNIT-III

5.	a)	Differentiate Nested and Correlated query processing with example.	7M
	b)	What is join operation? Explain different types of operations	7M
		(OR)	
6.	a)	Explain logical operators in SQL with example.	7M
	b)	Explain the importance of Null values in Relational Model.	7M

UNIT-IV

7.	a)	What is meant by the functional dependencies? Illustrate functional dependencies with an example.	6M
	b)	Explain about 1NF, 2NF & 3NF with examples.	8M
		(OR)	
8.	a)	What is Normalization? Explain its advantage.	7M
	b)	What is decomposition? Explain loss less decomposition with example.	7M

UNIT-V

9.	a)	What is transaction? Explain briefly transaction states with diagram.	7M
	b)	Write short notes on i) Schedule ii) Serializability iii) Concurrent execution	7M
		(OR)	
10.		What is File organization? Write short note on comparison of File organizations.	14M

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CODE: 16OE405A **SET-2**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI

(AUTONOMOUS)

IV B.Tech I Semester Supplementary Examinations, August-2021

INTRODUCTION TO WIRELESS NETWORKS

Time: 3 Hours **Max Marks: 70**

Answer ONE Question from each Unit
All Questions Carry Equal Marks
All parts of the Question must be answered at one place

UNIT-I

1.	a)	Explain about evolution of wireless communication systems.	7M
	b)	Distinguish fixed and wireless telephone networks.	7M
		(OR)	
2.	a)	Explain about traffic routing in wireless networks	7M
	b)	Explain about i) Infrared Wireless LAN ii)Spread spectrum Wireless LAN	7M

UNIT-II

3.	a)	Explain about architecture of CDPD in detail	7M
	b)	Explain the basic concepts of ISDN with necessary diagram.	7M
		(OR)	
4.		Explain about Protocol architecture of Bluetooth.	14M

UNIT-III

5.	a)	Explain about Mobile IP and its working with neat diagrams.	7M
	b)	Explain about Registration procedure in mobile IP	7M
		(OR)	
6.	a)	Explain about wireless application protocol Architecture	7M
	b)	Explain about Wireless Session Protocol.	7M

UNIT-IV

7.	a)	Explain about the architecture of IEEE 802.11	7M
	b)	Explain about services of IEEE 802.11	7M
		(OR)	
8.	a)	Explain about 802.11 medium access control layer	7M
	b)	Explain about 802.11 physical layer	7M

UNIT-V

9.	a)	Explain about basic architecture of WATM Network.	7M
	b)	Explain about protocol entities in WATM	7M
		(OR)	
10.	a)	Explain about types of HIPERLAN s.	7M
	b)	Explain about architecture of HIPERLAN 1	7M

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CODE: 13EC4031 **SET-2**

ADITYA INSTITUTE OF TECHNOLOGY AND MANAGEMENT, TEKKALI

(AUTONOMOUS)

IV B.Tech I Semester Supplementary Examinations, August-2021

WIRELESS COMMUNICATION NETWORKS

(ELECTIVE-II)

(Electronics & Communication Engineering)

Time: 3 Hours **Max Marks: 70**

PART-A

ANSWER ALL QUESTIONS **[1 x 10 = 10 M]**

1. a) Give a note on 2G cellular systems?
   b) Write a short note on cordless telephone systems?
   c) What are statistical models for multiparty fading channels?
   d) Write an IEEE standard name for Wi-Fi &Bluetooth?
   e) Define WAP.
   f) What are the factors influencing small scale fading?
   g) Define IEEE 802.11?
   h) What is GRPS? And it's significance.
   i) Define HIPER LAN?
   j) Define WATM?

PART-B

Answer one question from each unit **[5x12=60M]**

UNIT-I

2. Explain about time division multiple access techniques and compare with FDMA. 12M

(OR)

3. a) What is meant by packet radio? And its protocols. 7M
   b) Discuss about Frequency Division Multiple Access 5M

UNIT-II

4. Explain about wireless local loop technology and Bluetooth technology in detail. 12M

(OR)

5. Describe Signalling system No.7 and its services. 12M

UNIT-III

6. a) Explain WML script features in detail 6M
   b) Describe WAP session protocol 6M

(OR)

7. a) What is meant by Tunneling? And explain 6M
   b) Explain about wireless datagram protocol 6M

UNIT-IV

8. a) Briefly explain IEEE 802.11 protocol architecture. 6M
   b) Explain about mobile application protocols. 6M

(OR)

9. a) Write short note on GSM and GPRS 5M
   b) Explain briefly about mobile data networks. 7M

UNIT-V

10. a) Explain the similarities between HYPERLAN 1 and HYPERLAN 2. 6M
    b) Discuss the frame format of Wireless ATM. 6M

(OR)

11. What is Wireless Personnel Area Network? Explain in detail. 12M