Advance supple

Q.P. Code: 1803801 **SET - 2**

K.S.R.M. COLLEGE OF ENGINEERING (AUTONOMOUS), KADAPA

B. Tech. VIII Semester (R18UG) Regular & Supple. Examinations of July– 2023

SUB: Refrigeration and Air Conditioning (ME)

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

Answer any FIVE Questions choosing one question from each unit.
All questions carry Equal Marks.

			M	CO	BL
		UNIT - I			
1.	(a)	Differentiate between ideal and actual air refrigeration cycle.	7M	CO1	L1
	(b)	Describe with a diagram, the reduced ambient air cooling system.	7M	CO1	L2
		(OR)			
2.	(a)	List the advantages and disadvantages of air refrigeration system.	7M	CO1	L1
	(b)	In a Bell- coleman cycle, air is drawn into the compressor at -5^0C and 1 bar and compressed isentropically to 5 bar and then cooled to 15^0C and then expanded in the expansion cylinder to 1 bar pressure following the law $pv^{1.2}=C$. Find the capacity of the refrigeration plant in TOR and COP of the system.	7M	CO1	L3
		UNIT – II			
3.	(a)	How does an actual vapour compression cycle differ from that of a theoretical cycle?	7M	CO2	L2
	(b)	In a vapour compression refrigerator, the working fluid is superheated at the end of compression and is under cooled in the condenser before throttling. Sketch a working cycle on temperature-entropy and pressure-enthalpy diagram and explain how theoretical coefficient of performance may be calculated from these diagrams.	7M	CO2	L3
		(OR)			
4.	(a)	Explain the Electrolux refrigeration system with a neat sketch. What is the purpose of hydrogen in it?	7M	CO2	L2
	(b)	Derive an expression for the C.O.P. of an ideal vapour absorption refrigeration system.	7M	CO2	L2
		UNIT – III			
5.	(a)	With the help of neat sketch, explain the working principle of steam jet refrigeration system.	7M	CO3	L2
	(b)	Describe thermo electric refrigeration system with suitable diagram.	7M	CO3	L1
		(OR)			
6.	(a)	Differentiate between physical and thermodynamic properties of a refrigerant.	7M	CO3	L2
	(b)	Name the different refrigerants generally used. Discuss about secondary refrigerants.	7M	CO3	L1
		UNIT – IV			
7.	(a)	With the help of psychrometric chart, explain the following processes (i) Sensible heating and cooling (ii) Heating and dehumidification	7M	CO4	L2
	(b)	For hot and dry weather conditions show the arrangement of summer air-conditioning system and represent the processes on psychometric chart.	7M	CO4	L2
		(OR)			

8.	(a)	Discuss about RSHF, ASHF, ESHF and ADP.	7M	CO4	L2
	(b)	Explain the difference between comfort air-conditioning and industrial air conditioning.	7M	CO4	L2

UNIT-V

9.	(a)	Discuss Psychological hazards for humancomfort.	7M	CO5	L2
	(b)	A restaurant with a capacity of 100 persons is to be air conditioned with the following conditions: Outside conditions : 30^0 DBT and 70% RH Desired inside conditions: 23^0 DBT and 55% RH Quantity of air supplied : 0.5 m^3/min/person The desired conditions are achieved by cooling, dehumidifying and then heating. Determine (i) Capacity of cooling coil in tones of refrigeration (ii) Capacity of heating coil (iii)Amount of water removed by dehumidifier By-pass factor of the heating coil if its surface temperature is 35^0 C.	7M	CO5	L3

(OR)

10.	(a)	Explain the factors governing optimum effective temperature.	7M	CO5	L2
	(b)	State the factors that determine human comfort.	7M	CO5	L1

Advance Supple

Q.P. Code: 1804801 **SET - 2**

K.S.R.M. COLLEGE OF ENGINEERING (AUTONOMOUS), KADAPA

B. Tech. VIII Semester (R18UG) Regular & Supple. Examinations of July – 2023

SUB: Wireless Communications (ECE)

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

Answer any FIVE Questions choosing one question from each unit.
All questions carry Equal Marks.

			M	CO	BL
		UNIT - I			
1.	(a)	Design an expression to obtain Rayleigh fading density & draw the plot.	7M	CO1	L6
	(b)	Discuss Multi-antenna Maximal Ratio Combiner?	7M	CO1	L6
		(OR)			
2.	(a)	Define diversity and explain spatial diversity?	7M	CO1	L1
	(b)	Explain Rayleigh Fading and BER of Wired Communication?	7M	CO1	L2
		UNIT – II			
3.	(a)	Discuss the Coherence bandwidth of the wireless channel.	7M	CO2	L6
	(b)	Explain ISI and Doppler in Wireless Communication.	7M	CO2	L2
		(OR)			
4.	(a)	Explain the Coherence Bandwidth of the Wireless Channel?	7M	CO2	L2
	(b)	Explain UWB Wireless Channels and UWB Data Modulation?	7M	CO2	L2
		UNIT – III			
5.	(a)	Explain the frequency reuse method in cellular Communication.	7M	CO3	L2
	(b)	Briefly discuss Telegraphic Theory.	7M	CO3	L6
		(OR)			
6.	(a)	Explain Frequency reuse in cellular communications?	7M	CO3	L2
	(b)	Describe the RAKE Receiver with a neat sketch?	7M	CO3	L4
		UNIT – IV			
7.	(a)	Explain the following terms (i) Multi-carrier Transmission (ii) Cyclic Prefix OFDM	7M	CO4	L2
	(b)	Explain about Peak-Average Power Ratio (PAPR) in OFDM System.	7M	CO4	L2
		(OR)			
8.	(a)	Explain Multicarrier Modulation and Cyclic Prefix?	7M	CO4	L2
	(b)	Explain MIMO OFDM?	7M	CO4	L2
		UNIT-V			
9.	(a)	Explain GPRS?	7M	CO5	L2
	(b)	Explain WiMAX?	7M	CO5	L2
		(OR)			
10.	(a)	Sketch and explain the architecture of WCDMA.	7M	CO5	L6
	(b)	Illustrate 2.5G Wireless Communication standards with examples.	7M	CO5	L2

Advance Supple

Q.P. Code: 1805802 | **SET - 2**

K.S.R.M. COLLEGE OF ENGINEERING (AUTONOMOUS), KADAPA

B. Tech. VIII Semester (R18UG) Regular & Supple. Examinations of July – 2023

SUB: Object Oriented Analysis & Design (CSE)

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

Answer any FIVE Questions choosing one question from each unit.
All questions carry Equal Marks.

			M	CO	BL
		UNIT - I			
1.	(a)	Consider the building of a house. Explain the concept of Modularity and how modularity helps better work allocation and better performance.	7M	CO1	L2
	(b)	Discuss about type of abstraction.	7M	CO1	L2
		(OR)			
2.	(a)	Compare OOP, OOD and OOA.	7M	CO1	L3
	(b)	Briefly discuss about the structure of complex system	7M	CO1	L2
		UNIT – II			
3.	(a)	Justify the term "importance of proper classification" with examples	7M	CO2	L2
	(b)	Draw the object diagram for any structural organization of any educational system	7M	CO2	L3
		(OR)			
4.	(a)	Briefly discuss about how you model the distribution of responsibilities in a system with examples.	7M	CO2	L2
	(b)	Describe the UML notation for class diagram with example	7M	CO2	L1
		UNIT – III			
5.	(a)	Explain sequence diagram with example?	7M	CO3	L1
	(b)	Compare Activity and state chart diagram? Mention the Elements of an Activity Diagram.	7M	CO3	L3
		(OR)			
6.		Explain use case modeling with an example?	14M	CO3	L2
		UNIT – IV			
7.		Describe UML state machine diagram and modeling	14M	CO4	L2
		(OR)			
8.	(a)	How to draw state chart diagram? Explain.	9M	CO4	L1
	(b)	What is the Purpose of state chart diagram?	5M	CO4	L1
		UNIT-V			
9.		Illustrate about UML deployment and Component diagrams with examples?	14M	CO5	L4
		(OR)			
10.		Create SSD for Library Management System.	14M	CO5	L4

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Q.P. Code: 18OE307

SET - 2

K.S.R.M. COLLEGE OF ENGINEERING (AUTONOMOUS), KADAPA

B. Tech. VIII Semester (R18UG) Supplementary. Examinations of July – 2023

SUB: Total Quality Management (OE)

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

Answer any FIVE Questions choosing one question from each unit.
All questions carry Equal Marks.

			M	CO	BL
		UNIT - I			
1.	(a)	Describe the role inspection in quality control	7M	CO1	L4
	(b)	" Quality means the degree of excellence" Explain.	7M	CO1	L2
		(OR)			
2.	(a)	When is acceptance sampling useful?	7M	CO1	L1
	(b)	How do you choose appropriate bench marks?	7M	CO1	L1
		UNIT – II			
3.	(a)	Who is customer? What is customer satisfaction?	7M	CO2	L1
	(b)	What is the relevance of marketing and customer focus to quality improvement?	7M	CO2	L1
		(OR)			
4.	(a)	Draw a cause effect diagram for painting in your house?	7M	CO2	L6
	(b)	Explain briefly what is meant by quality circle .	7M	CO2	L2
		UNIT – III			
5.	(a)	What is the role of check-sheet in locating quality problem?	7M	CO3	L1
	(b)	What is the role of teams in organizing for TQM?	7M	CO3	L1
		(OR)			
6.	(a)	What is the quality management? Where do you obtain each quality cost?	7M	CO3	L1
	(b)	Who should be presented with quality cost information? What should be the frequency of reporting ?	7M	CO3	L1
		UNIT – IV			
7.	(a)	Discuss the various types of quality costs.	7M	CO4	L6
	(b)	What is process cost approach reporting cost of quality?	7M	CO4	L1
		(OR)			
8.	(a)	What is the step-by-step approach to conduct of cost of quality study in an organization?	7M	CO4	L1
	(b)	What is quality policy statement?	7M	CO4	L1
		UNIT-V			
9.	(a)	What are the various quality -documentation requirement for ISO 9000 certification?	7M	CO5	L1
	(b)	Explain the benefits of ISO certification.	7M	CO5	L2
		(OR)			
10.	(a)	What are the basic stages of ISO 9000 certification process?	7M	CO5	L1
	(b)	Explain the steps of assessment procedure by the certifying agency.	7M	CO5	L2

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Q.P. Code: 18OE508 **SET - 2**

K.S.R.M. COLLEGE OF ENGINEERING (AUTONOMOUS), KADAPA

B. Tech. VIII Semester (R18UG) Supplementary. Examinations of July – 2023

SUB: Cloud Computing (OE)

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

Answer any FIVE Questions choosing one question from each unit.
All questions carry Equal Marks.

			M	CO	BL
		UNIT - I			
1.	(a)	Explain the Need for Cloud Computing.	7M	CO1	L5
	(b)	Discuss Cloud Ecosystem in detail.	7M	CO1	L6
		(OR)			
2.	(a)	What is cloud computing? Enlist and explain three service models, and four deployment models of cloud computing.	7M	CO1	L4
	(b)	Discuss the Requirements for Cloud Services.	7M	CO1	L6
		UNIT – II			
3.	(a)	Describe the Network Connectivity in Cloud Computing..	7M	CO2	L2
	(b)	Differences between the Community Cloud and Hybrid Cloud.	7M	CO2	L2
		(OR)			
4.	(a)	With the help of neat diagram, explain the Cloud Architecture	7M	CO2	L4
	(b)	Differences between the Private Cloud and Public Cloud.	7M	CO2	L2
		UNIT – III			
5.		With the help of neat diagram, the architecture of livewire for intrusion detection using a dedicated VM.	14M	CO3	L2
		(OR)			
6.		Explain the Evolution from the MSP model to cloud computing and software-as-a-service.	14M	CO3	L2
		UNIT – IV			
7.	(a)	Discuss the Microsoft Windows Azure.	7M	CO4	L6
	(b)	Explain the Google App Engine.	7M	CO4	L2
		(OR)			
8.	(a)	List and explain the Cloud Application Development Platforms.	7M	CO4	L4
	(b)	Discuss the different perspectives on SaaS development.	7M	CO4	L4
		UNIT-V			
9.	(a)	Discuss the Amazon Simple Queue Service	7M	CO5	L4
	(b)	Explain the Amazon Simple Storage Service(S3)	7M	CO5	L4
		(OR)			
10.	(a)	Illustrate the Google app engine Services for Login Authentication.	7M	CO5	L1
	(b)	Discuss the Data Center Environment	7M	CO5	L6

Q.P. Code: 18OE2620 | Advance Supple | SET - 2

K.S.R.M. COLLEGE OF ENGINEERING (AUTONOMOUS), KADAPA

B. Tech. VIII Semester (R18UG) Advanced Supple. Examinations of July – 2023

SUB: Materials Management (OE)

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

Answer any FIVE Questions choosing one question from each unit.
All questions carry Equal Marks.

			Marks	CO	BL
		UNIT - I			
1.	(a)	Name the factors that influence vendor rating	7M	CO1	L6
	(b)	What is the need for International Purchase? And also Discuss the procedure and problems in International Purchase.	7M	CO1	L1
		(OR)			
2.	(a)	Why is negotiation an important aspect of purchasing? Describe the elements and objectives of negotiation	7M	CO1	L1
	(b)	Write a detailed note on ethical concepts in purchase	7M	CO1	L1
		UNIT – II			
3.	(a)	Briefly explain the process of Vendor management	7M	CO2	L2
	(b)	What is meant by Vendor management? And Explain the advantages of Vendor management?	7M	CO2	L4
		(OR)			
4.	(a)	Describe recent trends in vendor management	7M	CO2	L4
	(b)	Name the factors that influence vendor rating	7M	CO2	L1
		UNIT – III			
5.	(a)	Briefly explain the reason for the evaluation of manufacturing resources planning (MRP II) from material requirements planning (MRP). How does MRP II differ from MRP?	7M	CO3	L4
	(b)	Explain material handling principles	7M	CO3	L1
		(OR)			
6.	(a)	State any three objectives of materials management	7M	CO3	L2
	(b)	List the guidelines for effective utilization of material handling equipment	7M	CO3	L4
		UNIT – IV			
7.	(a)	Write a detailed note on ABC analysis	7M	CO4	L4
	(b)	Differentiate between MRP and MRP-II	7M	CO4	L1
		(OR)			
8.	(a)	Write the step by step procedure of least square type forecasting method	7M	CO4	L1
	(b)	What is Inventory Management? Explain inventory control techniques used in hotel industry.	7M	CO4	L5
		UNIT-V			
9.	(a)	Quality control is an essential tool for long term success. Discuss various techniques that can be used in a bread making unit to control (from raw material to final product stage	7M	CO5	L1
	(b)	Write a detailed note on Supply Chain Management	7M	CO5	L2
		(OR)			
10.	(a)	Explain the Supply Chain Operations Reference (SCOR) framework for performance appraisal and how it is useful in materials management	7M	CO5	L2
	(b)	Write a detailed note on TQM	7M	CO5	L1