

INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous) Dundigal, Hyderabad - 500 043

INFORMATION TECHNOLOGY

DEFINITIONS AND TERMINOLOGY QUESTION BANK

Course Name : OBJECT OREINTED ANALYSIS AND DESIGN		OBJECT OREINTED ANALYSIS AND DESIGN
Course Code	:	ACS009
Program	:	B.Tech
Semester	•••	V
Branch	:	INFORMATION TECHNOLOGY
Section	:	A & B
Academic Year	:	2019 - 2020
Course Faculty	:	Mr. G Chandra Sekhar, Assistant Professor Mr. N Bhaswanth, Assistant Professor

COURSE OBJECTIVES:

The	The course should enable the students to:					
Ι	Develop the skills to analyze and design object-oriented problems.					
Π	Create design patterns to solve problems based on object oriented concepts.					
III	Understand the various processes and techniques for building object-oriented software systems.					
IV	Prepare unified modeling techniques for case studies.					

DEFINITIONS AND TERMINOLOGY QUESTION BANK

S. No	QUESTION	ANSWER	Blooms Level	CO	CLO	CLO Code		
	UNIT-I							
1	Define Model?	A model is a simplification of reality.	Remember	CO 1	CLO 01	ACS009.01		
2	Define Encapsulation?	Encapsulation is property in which data is accumulated and restricted to a particular area only.	Remember	CO 1	CLO 01	ACS009.01		
3	Define Class Diagram?	The Class diagram for the system represents the class structure of a system including the relationships between class and the inheritance structure.	Remember	CO 1	CLO 02	ACS009.02		
4	Describe Interface?	Interface defines service to each class.	Understand	CO 1	CLO 02	ACS009.02		
5	Expand the term OMT	Object Modeling Techniques	Remember	CO 1	CLO 01	ACS009.01		
6	Define Use case Driven?	It refers to the Utilization of use cases as an effective element for narrating the behavior of any system.	Remember	CO 1	CLO 04	ACS009.04		
7	Expand the term CASE	Computer Aided Software Engineering	Remember	CO 1	CLO 01	ACS009.01		
8	Define Forward Engineering.	Building code from Model is known as Forward Engineering	Understand	CO 1	CLO 02	ACS009.02		

S. No	QUESTION	ANSWER	Blooms Level	CO	CLO	CLO Code
9	Define Reverse	Building Model from Code is	Remember	CO 1	CLO 02	ACS009.02
1.0	Engineering.	known as Reverse Engineering		~~ · ·	<u> </u>	
10	What is Design View?	It consists of Classes interfaces	Remember	CO 1	CLO 02	ACS009.02
		actual definition of a Problem and				
		its solution.				
11	Define Class?	Class is a collection of objects	Remember	CO 1	CLO 02	ACS009.02
		that share common attributes and				
12	Define Use sees?	operations.	Demonstration	CO 1	CLO 02	AC5000 02
12	Define Use case?	Use case describes a set of actions	Remember	01	CLO 02	AC\$009.02
		system.				
13	Define Active class?	Active class possesses objects	Remember	CO 1	CLO 02	ACS009.02
		which consist of processes and				
		threads.				
14	Define Component?	Components bind several classes,	Remember	CO 1	CLO 02	ACS009.02
		interfaces and collaborations by				
15	Describe Node?	Node is an element which holds	Understand	CO 1	CLO 02	AC\$009.02
15	Describe Wode :	certain locations in the memory	Childerstand	001	CLO 02	1105009.02
		sometimes along with processing				
		capabilities.				
		UNIT-II	l			
1	Which diagram	Collaboration diagram	Remember	CO 2	CLO 06	ACS009.06
	emphasize on structural					
	organization?					
2	What are common	To model context of a system, To	Remember	CO 2	CLO 06	ACS009.06
	modeling techniques of	model requirements of a system				
3	What are branches in	Branches are a notational	Remember	CO 2	CL O 06	AC\$009.06
5	activity diagram?	convenience, semantically	Remember	002	CEO 00	1165009.00
	, ,	equivalent to multiple transitions			_	
	0	with guards			0	
4	Define Fork in activity	A fork may have one incoming	Remember	CO 2	CLO 06	ACS009.06
	diagram.	transitions and two or more			A	
5	Define action state	Action states are atomic and	Remember	CO 2	CLO 07	ACS009.07
5	Define detion state	cannot be decomposed	Remember	002	CLO 07	nebooy.or
6	Which diagrams are	Interaction diagrams	Remember	CO 2	CLO 06	ACS009.06
	Isomorphs in nature?			00.5	CT C C C	
7	Name interaction	Sequence and collaboration	Remember	CO 2	CLO 06	ACS009.06
8	Which diagrams are used	Use Case Diagrams are used to	Understand	CO 2	CL O 08	AC\$009.08
0	to represent use case	represent use case view of UML	Chaerstand	002	00 00	1165009.00
	view of UML	architecture.				
	architecture?					
9	Which diagrams are used	Component Diagrams are used to	Remember	CO 2	CLO 07	ACS009.07
	to represent component	represent component view of				
	UML architecture?					
10	Which diagrams are used	Deployment Diagram are used to	Remember	CO 2	CLO 07	ACS009.07
	to	represent Deployment view of				
	represent Deployment	UML architecture.				
	view of UML					
11	arcnitecture? Which diagrams are used	Class and object diagrams are	Remember	CO 2	CI O 08	AC8000 08
11	to represent Design view	used to represent Design view of	Remember	002		1100007.00

S. No	QUESTION	ANSWER	Blooms Level	CO	CLO	CLO Code
	of	UML architecture.				
	UML architecture?					
12	Which diagrams are used	Interaction and activity diagrams	Remember	CO 2	CLO 08	ACS009.08
	to	are used to represent Logical				
	represent Logical view	view of UML architecture.				
	of UML architecture?					
13	What are constraints of	New, destroy and transient are	Remember	CO 2	CLO 06	ACS009.06
	object diagrams?	constraints of object diagrams.				
14	What are key parts of	Participant and messages	Understand	CO 2	CLO 06	ACS009.06
	sequence daigram					
15	Define scenario.	A Scenario is a specific sequence	Remember	CO 2	CLO 06	ACS009.06
		of actions that illustrates behavior				
		UNIT-II	I			
1			D 1	00.1	CL 0.12	100000 10
1	Define call Events?	Call event is the receipt of a	Remember	CO 3	CLO 12	ACS009.12
	D.C.	request to invoke an operation.	Dental	00.2	CL 0 12	A C0000 10
2	Define source state?	It is the state affected by the	Remember	CO 3	CLO 12	ACS009.12
2	Define signal sugat	I ransition.	Demensher	CO 2	CLO 11	ACC000 11
3	Define signal event.	A signal event represents a	Remember	003	CLOTI	AC\$009.11
		(thrown) asymphronously by one				
		childer and then received (court)				
		by another				
1	Define Signal?	A signal signifies named objects	Remember	CO 3	CLO 13	AC\$009.13
4	Define Signar:	which are transmitted or received	Kemember	05	CLO 15	AC5009.15
		among several objects	_			
5	Define Abstract Product?	Declares an interface for a type	Remember	CO 3	CL0.11	AC\$009.11
5	Define Abstract Floadet.	of product object	Remember	005	CLO II	1105009.11
6	What is transition?	A transition is said to have	Remember	CO 3	CLO 13	ACS009.13
Ū	what is transition.	occurred when an object moves	Remember	005	CLO 15	11050007.15
		from one state to another.				
7	What is activity?	Activity refers to the actions that	Remember	CO 3	CLO 15	ACS009.15
	, and the second s	are performed when an object is				
	0	in particular state.			0	
8	Define event trigger	An event is the specification of a	Understand	CO 3	CLO 10	ACS009.10
	0	significant occurrence that has a				
	0	location in time and space. In the				
		context of state machines, an			No.	
	-	event is an occurrence of a				
		stimulus that can trigger a state				
		transition.		Sec. 1		
9	Define component	A component is a physical and	Remember	CO 3	CLO 11	ACS009.11
		replaceable part of a system that				
		conforms to and provides the				
		realization of a set of interfaces.				
		Graphically, a component is				
		rendered as a rectangle with tabs.				
10	Define node	A node is a physical element that	Remember	CO 3	CLO 15	ACS009.15
		exists at run time and represents				
		a computational resource,				
		generally having at least some				
		memory and, often, processing				
		capability. Graphically, a node is				
11		rendered as a cube.		00.1	01.0.15	10000015
11	Define Action	An action is an executable	Kemember	003	CL0 15	AC\$009.15
		atomic computation. Actions				
		may include operation calls the				
		creation or destruction of another				
1		object, or the sending of a signal				

S. No	QUESTION	ANSWER	Blooms Level	CO	CLO	CLO Code
	-	to an object. An action is atomic,				
		meaning that it cannot be				
		interrupted by an event and				
10	XX · 1	therefore runs to completion.	D	<i>co</i> 2	CL 0 11	4 00000 11
12	How signals are modeled?	As stereo typed classes	Remember	CO 3	CLO 11	ACS009.11
13	What are contents of state	state chart diagrams contain	Remember	CO 3	CLO 10	ACS009.10
	chart diagram?	branches, forks, joins, action				
		states, activity states, objects,				
		states				
14	What are common	To model a reactive object	Remember	CO 3	CLO 11	ACS009 11
11	modeling techniques of			005	02011	1105009.111
	state chart diagrams?			-		
15	Define Component.	A component is a physical and	Remember	CO 3	CLO 11	ACS009.11
		replaceable part of a system that	· · · · ·		N	
		conforms to and provides the				
		realization of a set of interfaces.				
		TINITO IN	7			
		UNII-I	V			
1	Define Concrete Factory?	Implements the operations to create concrete product objects	Remember	CO 4	CLO 13	ACS009.13
2	Define Abstract Product?	Declares an interface for a type	Remember	CO 4	CLO 13	ACS009.13
		of product object				
3	Define Concrete Product	Defines a product object to be	Understand	CO 4	CLO 14	ACS009.14
	?	created by the corresponding				
		concrete factory. Implements the				
- 4	D.C. C	Abstract Product interface	D	<u>CO 1</u>	CL 0.14	A CC000 14
4	Define Concrete Builder?	of the product by implementing	Remember	04	CLO 14	AC\$009.14
		the Builder			·	
	177	interface.				
5	Define Concrete Creator?	overrides the factory method to	Understand	CO 4	CLO 14	ACS009.14
	0	return an instance of a Concrete		-	0	
	1	Product			-	
6	Abstract Factory is also	It also called as Kit	Remember	CO 4	CLO 15	ACS009.15
7	called as what?	Eastarra Mathada and Dratatarra	Un de nete a d	CO 4	CL 0 15	ACC000 15
/	to Abstract Factory?	Factory Methods and Flototype	Understand	004	CL0 15	AC3009.13
8	What are related patterns	Abstract Factory and Composite	Remember	CO 4	CLO 14	ACS009.14
	to Builder?			Sec. 1		
9	Factory Method is also known as what?	Visual Constructor	Remember	CO 4	CLO 14	ACS009.14
10	What are related patterns	Abstract Factory	Understand	CO 4	CLO 15	ACS009.15
	of Factory Method?			<u> </u>	CT O (T	1.00000 1.5
11	What are related patterns	Composite and Decorator	Remember	CO 4	CLO 15	ACS009.15
12	What are related natterns	Abstract Factory Builder and	Remember	CO 4	CLO 14	AC\$0001/
12	to Singleton?	Prototype	Remember	0.0 4		1000017
13	Intent design pattern is	Wrapper	Remember	CO 4	CLO 13	ACS009.13
	also known as what?	* 1				
14	What are related patterns	Bridge, Decorator and Proxy	Remember	CO 4	CLO 14	ACS009.14
	to Intent?			~ -		
15	Bridge design pattern is	Handle/Body	Remember	CO 4	CLO 14	ACS009.14
16	also known as what?	defines an emisting interference of	Dorrest	CO 4	CLO 12	10000 12
10	Denne Adaptee	uennes an existing interface that	Keinember	0 4	CLU 13	ACS009.13
17	Define Implementor	Defines the interface for	Understand	CO 4	CLO 14	ACS009 14

S. No	QUESTION	ANSWER	Blooms Level	CO	CLO	CLO Code
		implementation classes				
		UNIT-V				
1	What are Domain Objects?	Software objects representing domain concepts	Remember	CO 5	CLO 17	ACS009.17
2	What is POS system?	A POS system is a computerized application used (in part) to record sales and handle payments; it is typically used in a retail store	Remember	CO 5	CLO 17	ACS009.17
3	What hardware are used in POS?	Computer and Barcode Scanner	Remember	CO 5	CLO 17	ACS009.17
4	What are service applications in POS?	Third Party Ytax calculator and Inventory Control	Remember	CO 5	CLO 17	ACS00917
5	What are the goals of cashier in POS?	process sales, handle returns, cash in, cash out	Remember	CO 5	CLO 18	ACS009.18
6	What are the goals of system administrator in POS?	manage users, manage security, manage system tables	Remember	CO 5	CLO 18	ACS00918
7	What are the goals of manager in POS?	start up, shut down	Remember	CO 5	CLO 17	ACS009.17
8	What are the goals of sales activity system in POS?	analyze sales data	Remember	CO 5	CLO 17	ACS009.17
9	Differentiate Domain and Data Models	A domain model is not a data model which by definition shows persistent data to be stored somewhere, so do not exclude a class simply because the requirements don't indicate any obvious need to remember	Remember	CO 5	CLO 17	ACS009.17
10	Define Controller pattern	 Assign the responsibility for handling a system event message to a class representing one of these choices: Represents the overall system, device, or a subsystem (facade controller). Represents a use case scenario within which the system event occurs (use-case or session controller) 	Remember	CO 5	CLO 18	ACS009.18
11	Define Low Coupling.	Assign a responsibility so that the coupling (linking classes) remains low	Remember	CO 5	CLO 18	ACS009.18
12	Define High Cohesion.	Assign responsibility so that cohesion remains high	Remember	CO 5	CLO 18	ACS009.18
13	Define system sequence diagram	a system sequence diagram (SSD) is a sequence diagram that shows, for a particular scenario of a use case, the events that external actors generate, their order, and possible inter- system events.	Remember	CO 5	CLO 19	ACS009.19
14	Define Logical architecture	Logical architecture and the Layers pattern was introduced	Remember	CO 5	CLO 19	ACS009.19

S. No	QUESTION	ANSWER	Blooms Level	СО	CLO	CLO Code
		starting on. It drives a bit deeper				
		looking at some intermediate				
		topics related to layered				
		architectures.				
15	Define Software design	Software design is an iterative	Remember	CO 5	CLO 19	ACS009.19
		development, and it is normal to				
		create a design of layers that				
		starts simple, and evolves over				
		the iterations of the elaboration				
		phase				

