Code No: R1631053 **R16** SET - 1

III B. Tech I Semester Regular Examinations, October/November - 2018

OBJECT ORIENTED ANALYSIS & DESIGN USING UML

(Computer Science Engineering)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**

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PART –A

1.	a)	Write the significance of model building.	[2M]
	b)	Define Conceptual Clustering.	[2M]
	c)	Write the importance of notational things in UML.	[2M]
	d)	Write the purpose of Fork node in UML.	[3M]
	e)	Write the different parts of a state in a state diagram.	[2M]
	f)	How do you model an API?	[3M]

PART -B

2.	a)	Elaborate the importance of canonical form of a complex system.	[7M]
	b)	How does one properly identify the classes and objects that are relevant to a particular application? Explain.	[7M]
3.	a)	Discus how the quality of an abstraction can be measured.	[7M]
	b)	Explain the procedure to identify key abstractions.	[7M]
4.	a)	Write the four kinds of relationships available in the UML.	[7M]
	b)	Draw the class diagram for stock maintenance system.	[7M]
5.	a)	Write the features that distinguish sequence diagrams from collaboration diagrams.	[7M]
	b)	Draw the use case diagram for online railway reservation system.	[7M]
6.	a)	Write the procedure to handle events in active and passive objects.	[7M]
	b)	Draw the state chart diagram for university management system.	[7M]
7.	a)	Discuss about the structural aspects of collaboration.	[7M]
	b)	Draw the component diagram for Aadhar management system.	[7M]

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Code No: R1631053 **R16** SET - 2

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Time: 3 hours Max. Marks: 70

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2. Answer **ALL** the question in **Part-A**
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PART –A

1.	a)	Write any two fundamental limiting factors of human cognition.	[2M]
	b)	Write the importance of polymorphism in OOAD.	[2M]
	c)	Define association in UML.	[2M]
	d)	Write the significance of Join node in UML.	[3M]
	e)	Define thread in behavioral modeling.	[3M]
	f)	How do you model tables and files.	[2M]

PART -B

2.	a)	What are the limitations of the human capacity for dealing with complexity? Explain.	[7M]
	b)	Why software is inherently complex? Explain.	[7M]
3.	a)	Discuss about the three approaches to classification in detail.	[7M]
	b)	Write the reason behind the difficulty of classification.	[7M]
4.	a)	Write the procedure to model an object structure.	[7M]
	b)	Draw class diagram for an online railway reservation system.	[7M]
5.	a)	Write the features that distinguish collaboration diagrams from sequence diagrams.	[7M]
	b)	Draw the use case diagram for library management system.	[7M]
6.	a)	How do you model the lifetime of an object? Explain.	[7M]
	b)	Draw the state chart diagram for airline management system.	[7M]
7.	a)	Discuss about the behavioral aspects of collaboration.	[7M]
	b)	Draw the component diagram for bank management system.	[7M]

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Code No: R1631053 **R16** SET - 3

III B. Tech I Semester Regular Examinations, October/November - 2018

OBJECT ORIENTED ANALYSIS & DESIGN USING UML

(Computer Science Engineering)

Time: 3 hours Max. Marks: 70

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2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**

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PART –A

1.	a)	Write the importance of typing and persistence in OOAD.	[2M]
	b)	Write the two kinds of object relationships in OOAD.	[2M]
	c)	Define realization in UML.	[2M]
	d)	Write the purpose of Swim lanes in UML.	[3M]
	e)	Define process in behavioral modeling.	[3M]
	f)	How do you model processors and devices.	[2M]

PART -B

2.		Explain the five attributes of a complex system in detail.	[14M]
3.	a)	Aggregation is a specialized kind of association. Justify the validity of the statement.	[7M]
	b)	Discuss about identification of key mechanisms in classification.	[7M]
4.	a)	What are the four things that a well-structured class diagram should have? Explain.	[7M]
	b)	Draw the class diagram for library management system.	[7M]
5.	a)	Forward engineering is possible for both sequence and collaboration diagrams. Justify the validity of the statement.	[7M]
	b)	Draw the activity diagram for online quiz management system.	[7M]
6.	a)	How do you model interprocess communication? Explain.	[7M]
	b)	Draw the state chart diagram for voter card management system.	[7M]
7.	a)	Write the five standard stereotypes that can be applied to components in UML.	[7M]
	b)	Draw the deployment diagram for online shopping management system.	[7M]

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Code No: R1631053 **R16** SET - 4

III B. Tech I Semester Regular Examinations, October/November - 2018

OBJECT ORIENTED ANALYSIS & DESIGN USING UML

(Computer Science Engineering)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answer **ALL** the question in **Part-A**
3. Answer any **FOUR** Questions from **Part-B**

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PART –A

1.	a)	Write the importance of modularity and concurrency in OOAD.	[2M]
	b)	Write the three common kinds of multiplicity across an association.	[3M]
	c)	Define generalization in UML.	[2M]
	d)	Write the characteristics of a well-structured interaction diagram.	[2M]
	e)	Write the different parts of a state in a state diagram.	[3M]
	f)	How do you model a source code?	[2M]

PART -B

2.	a)	Discuss about the key hierarchies of complex systems in detail.	[7M]
	b)	What are the management implications of using object-oriented design? Explain.	[4 M]
	c)	Write the importance of model building.	[3 M]
3.	a)	Classification is fundamentally a problem of clustering. Justify the validity of the statement.	[7M]
	b)	Explain the significance of classical categorization and conceptual clustering.	[7M]
4.	a)	How do you model a logical database schema? Explain.	[7M]
	b)	Draw the class diagram for course registration system.	[7M]
5.	a)	How do you use interaction diagrams when you model dynamic aspects of a system? Explain with an example.	[7M]
	b)	Draw collaboration and sequence diagram for simple telephone call.	[7M]
6.	a)	Write the procedure to build thread-safe abstractions.	[7M]
	b)	Draw the state chart diagram for railway management system.	[7M]
7.	a)	Discuss about mapping between logical and physical models.	[7M]
	b)	Draw the deployment diagram for mobile network management system.	[7M]

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