UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Online End Semester Examination, December 2020

Course: Object Oriented Analysis and Design **Semester: V**
Program: B.Tech – CSE All Branches + Cyber Law **Time 03 hrs.**
Course Code: CSEG 3002 **Max. Marks: 100**

SECTION A
1. **Each question will carry 5 Marks**
2. **Complete the statements / Select the correct answers**

S. No.		CO
Q 1	In object oriented analysis and design, the system has 5 views. These views are ………, ………….., ………….., ………….., and …………..	**CO1**
Q 2	The typical 7 phases of SDLC are listed in the following order …………, …………, …………, …………, …………, …………, …………,	**CO1**
Q 3	The four phases of rational unified process (RUP) are …………, …………, …………, …………,	**CO2**
Q 4	Select the interaction diagrams from the following list: a. Activity Diagram b. Sequence Diagram c. Use Case Diagram d. Communication Diagram e. State Machine Diagram f. Deployment Diagram g. Class Diagram	**CO4**
Q 5	List the 5 relationship types in UML …………, …………, …………, …………, …………,	**CO2**
Q 6	Select the structural diagrams from the following list: a. Object Diagram b. Communication Diagram c. State Machine Diagram d. Deployment Diagram e. Activity Diagram f. Sequence Diagram g. Use Case Diagram	**CO3**

SECTION B

1. **Each question will carry 10 Marks**
2. **Instruction: Write short / brief notes. Make diagrams wherever needed.**

Q 7	Draw the class diagram for a Library Management System with some classes. The diagram should contain various relationship types at class level.	**CO1**
Q 8	Elaborate the task performed at various phases of RUP.	**CO2**
Q 9	Make a sequence diagram for a hotel room reservation system. System may be operated using a web based GUI. It should handle the reservation for multiple days after checking availability and other constraints.	**CO3**
Q 10	Explain preconditions and post conditions in activity diagram. Make activity diagram for ATM money withdrawal scenario.	**CO3**
Q 11	Explain the terms- 'event', 'state' and 'signal'. Elaborate the use of state machine diagram with a suitable example.	**CO4**

SECTION-C

1. **Each question carries 20 Marks**
2. **Instruction: Write long answers. Make diagrams wherever needed.**

Q 12	Recognize the use of component diagram. Elaborate its usefulness in modeling the physical aspects of the system. List five limitations of top-down approach of system design. Make a component diagram for an online store. **OR** Explain the major activities in deployment and maintenance phases of software development. Make a deployment diagram for a typical enterprise web application on a server architecture. The system uses its own hardware as part of network architecture.	**CO5**