

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2018

Programme Name: B.Tech CSE All branches	Semester : V
Course Name : Object Oriented Analysis and Design	Time : 03 hrs
Course Code : CSEG 304	Max. Marks : 100
Nos. of page(s) : 3	
Instructions: All three sections are compulsory and should attempt in order.	

SECTION A

S. No.		Marks	CO
Q 1	Explain the different important aspects of Object Oriented programming?	5	CO1
Q 2	Explain Elaboration phase? Illustrate the entry and exist criteria of Transition phase of RUP?	5	CO1
Q 3	Illustrate different kinds of events that can be transit a state?	5	CO4
Q 4	Illustrate with an example “Associated class”?	5	CO2

SECTION B

One has set up a fresh juice processing plant. Harvested fresh fruits from nearby areas are send to the factory for processing. At the loading station, rotating belt washes, dries and separate the fruits according to their quality i.e. Grade A: finest, Grade B: ok and Grade c: bad.

- a) The finest quality is then send into the peeler chamber that remove skin and seed of the fruits. After peeler chamber, the crusher chamber convert the fruits in to semi solid state and transfer the pulp of the fruits into the rotating chamber. The extracted juices from the rotating chamber is send to the cooking oven. This oven operates at two different mode to produce the juice and juice concentrate. For juice the oven, run for 1hr cycle at 80 C and for concentrate the oven, run for 2.5 hr at 110 C.
- b) The grade B is send into crusher chamber directly and cooked at 180 C for 5hr. The end product is a Jam
- c) The grade C is discarded and along with the residual of the grade A are send to the nearest farm.

The hot byproduct of the oven are now send to the cooling station, which cool them at 10 C by continuously steering. Once the juice/ concentrate/jam are at the normal temperature, the quality test of the batches are performed. Thereafter the product are packed, sealed and printed with label. In the shipping station, the box of 24 packs is prepared. Following which the boxes are send to the customers.

Q 5	Design an Activity Diagram for the Juice Processing Plant. <p style="text-align: center;">OR</p> Design a Swim-lane Diagram for the Juice Processing Plant.	10	CO3
Q 6	Design a sequence diagram for the Packaging center for the Juice processing plant. The packaging station insure that right grade of the fruit are processed juice, concentrate and jam. The quantity in each pack should be 240 ml and should be at 24	10	CO3

	C temperature only. All the boxed should have exact weight on the box with manufacturing and expiry date. Any outlier is send back to quality station and new batches are produced from the processing station.		
Q 7	Design a Level 1 Use Case Diagram for Quality testing station for Juice Processing station. Worker, manger and inspector will test the quality. Inspection report will be send to farmer and the customer.	10	CO2
Q 8	Design component and deployment for installing a new home security system into the apartment building?	5+5	CO5
SECTION-C			
Q 9	<p>Design a class diagram and CRC for Automatic Parking Management system. The system is for multi floor building (G, B1, B2, B3, B4) and is designed for four-wheeler as well as two-wheeler. This ground floor is for two-wheeler only and B3 is filled at the last. Scanning of all the vehicle are carried out at the gate and ticket is send to their registered mobile phone only. Online transaction is only used. Any vehicle parked for more than 24 hrs will be reported to the police station</p> <p style="text-align: center;">OR</p> <p>Design a class diagram and CRC card diagram for Travel booking system. The system is for individual as well as agent. The system provide customized travel plan according to the budget and location. An agent cannot issue more than five plan per day and individual cannot plan two trips with overlapping dates. System also perform heuristic study, which provide packages as per the previous trips?</p>	8+12	CO2
Q 10	<p>10.1) Design a State diagram for</p> <p>a) Traffic light system for four way round about.</p> <p>b) Automatic washing machine.</p>	10+10	CO4

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Substitute Semester Examination, December 2018

Programme Name: B.Tech CSE All branches	Semester : V
Course Name : Object Oriented Analysis and Design	Time : 03 hrs
Course Code : CSEG 304	Max. Marks : 100
Nos. of page(s) : 3	
Instructions: All three sections are compulsory and should attempt in order.	

SECTION A

S. No.	Question	Marks	CO
Q 1	Explain the different principle of Object Oriented programming?	5	CO1
Q 2	Explain Inception phase? Illustrate the entry and exist criteria of construction phase of RUP?	5	CO1
Q 3	Explain modularity? Distinguish between coupling and cohesion?	5	CO1
Q 4	State the difference between an event within a state and self-transition?	5	CO4

SECTION B

Q 5	For the process of withdrawing money from bank: Activity diagram Or Swim-lane Diagram	10	CO3
Q 6	Design a sequence diagram for installing the Dish TV?	10	CO3
Q 7	Design a Level 1 Use Case Diagram for Automatic Car wash system?	10	CO2
Q 8	Design component and deployment for installing a new biometric system into the institute?	5+5	CO5

SECTION-C

Q 9	Design a CRC diagram and class diagram for automating Passport Processing system. This system is designed for senior citizen who came for appointment but are unable to stand in line and move from one counter to another OR Design CRC card diagram and class diagram for issuing LPG connection. The applicant must be an inhabitant of the current region for more three months and should have two residence proof. Maximum two cylinder can be issue to one family and all the connection will be associated with bank account.	8+12	CO2
Q 10	10.1) Design a State diagram for	10+10	CO4

	a) Alarm clock. b) Printing Machine.		
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