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SEMESTER EXAMINATION	Practice Paper	DATE:	
SEMESTER & PROGRAM	Sem-VI T.Y. B.Tech (Computer Engg)	TIME	
TIME ALLOWED		MARKS	100
COURSE (Course Code)	Software Engineering II (R4CO3011T)		

Instructions

- 1. Solve ALL question
- 2. All questions carry equal marks.
- 3. Figures to the right indicate full marks.
- 4. Answer to sub question should be answered one below the other.
- 5. Forward Handwritten Answer Sheet in pdf format to classroom of software engineering II.

Que. 1

Advanced Employee Management System: large companies and organizations have a vast army of human resources working under them. In such scenarios where there's a significant number of human employees to manage, it becomes challenging to supervise and manage the activities of the human resources efficiently. Such companies/organizations need an advanced employee management system that can handle everything related to the company's human resources. This case study has two major components — Admin and Employee. The Admin is in charge of the company information, leave management and payroll, and can also add and tweak employee details. Likewise, employees can use the system to check their leave status, view salary details, yearly holiday list, and also for voicing grievances or resigning. For this case study, answer the following questions.

(i)Construct the class diagram for the Advanced Employee Management System; clearly specify all attributes and methods with access specifiers and constraints.

OR

(ii) Give data and process model design for **Advanced Employee Management System** using C++ or JAVA.

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Que. 2	Hospital Management System keeps track of the patients registering in a hospital. Also, this system should support features such as accessing the previous visit histories of any patient, search for patients by name and other attributes, etc. Some of the most general requirements of the system are: Registration of patients, Users are either normal users or admin; they need to login before using the system, Users of this system can search for patients by name, admission date and discharge date, Users can view the previous visit histories of any patient, System can maintain the list of doctors in the hospital, System can maintain the list of beds/rooms available in the hospital ,Patients can be categorized into "In Patients" and "Out Patients" (i) Construct use case diagram. Give your opinion about primary actors and secondary actors involved in the case study. (Or Give the notations of class diagram and illustrate it with suitable examples.	10
Que. 3	The railway reservation system facilitates the passengers to enquire about the trains available on the basis of source and destination, booking and cancellation of tickets, enquire about the status of the booked ticket, etc. Modules of Railway Reservation System are: Ticket Reservation with Concession, Ticket Enquiry, Ticket Cancellation, Admin Menu, User Men (i) Draw the state Transition diagram, clearly specify events, actions, conditions and do activity OR Illustrate The Notations Of State Transition Diagram With Suitable Examples	10
Que. 4	Blood Bank Management System that is designed to store, process, retrieve and analyze information concerned with the administrative and inventory management within a blood bank. This project aims at maintaining all the information pertaining to blood donors, different blood groups available in each blood bank and help them manage in a better way. Aim is to give transparency in this field, make the way toward getting blood from a blood donation center problem free and debasement free and make the arrangement of blood donation center administration compelling. These subtleties incorporate blood classification, stockpiling region and date of capacity. Maintenance and the monitoring of blood deposits become easy with the help of this system. The system provides an option to check the availability of the required blood group within the blood bank. (i) Construct a use case diagram in detail. Give your opinion about primary actors and secondary actors involved in the case study. OR Illustrate Dev Op Software life cycle with phases and tools used.	10

Ques. 5	A telephone billing system is a computerized system used by a business that will automatically calculate and produce customer's pay bills. It will also view and update customer viewbill and previous bills. (i) Draw the deployment diagram for the given case study. (5 marks) (ii) Draw a component diagram with proper explanation. (5 marks) Or	10
	Illustrate various notations o use din component diagrams and deployment diagram.	
Que. 6	The objective of Cinema Reservation System is to provide the facility of booking movie tickets online. Customers can view timing of movie shows and book the show as per the availability. This provides a ticket reservation system allowing bookings in a few easy steps. Users can easily book for Shows, Change time, Delete order and view all the shows available.	
	Construct Interaction Diagram For The Use Case- booking movie tickets online	
	Or	
	Construct functional model for this case study	
Que. 7	Library management system aims in developing a computerized system to maintain all the daily work of a library. The system helps both students and library manager to keep a constant track of all the books available in the library. It allows both the admin and the student to search for the desired book. The main feature of this system is that all the books available in the library can be displayed in a list so that students need not roam through the entire library to find a book. Additionally, the application effectively maintains the details of users/students to whom books have been issued; it also records the	10
	issued date and return date.	
	(i) Write the SRS for the given case study.	
Que. 8	Online Job Management System is used to search the job for job seekers and those who need candidates for company they can search candidates from this site. Jobs are necessary for each and every individual after he/ she finishes their education. Without any job will make a person lazy. You can see these days that many job portals come up which gives information of the jobs that are available in different parts of the country and in different fields. It will provide the information like the jobs that will be available in different fields and also different parts of the country. Through this the jobseekers can have an easy search of their jobs online. People search for the opportunities by going to the offices of the organizations and asking for the vacancies.	10
	The features that the online job maker application can include are as follows: Login separately for the employer and the job seeker: There will be separate login must be provided separately for the employers and the job seekers. Premium membership: This job maker can have the facility of the premium membership through which you can gain profit. Search option: There will be search option provided through which the search of jobs can taken place.	

	Various categories: The jobs can be classified based on IT jobs, Bank jobs, BPO jobs, Accounting jobs and many more. Further it can be also categorized based on the different regions in India or outside India. Full time and part time job: Company can upload Full time job profile as well as part time job profile. (i) Give the software architecture for this case study	
Que. 9	This Real Estate Management System provides the facility where the customer can easily buy or sell their properties such as land, house, and shop. The user just has to register on this web portal, then the user can easily upload information of their properties to sell and also search properties to buy. The system contains a search filter which helps users to search property in a certain city, area or state. While buying Property such as house, land, and shops as per user's requirements, the user can view the details of each and every property and if the user is interested then he/she can contact to the owner of the property. Likewise, while selling property in different areas & requirements. The user can search for all kinds of properties here. It also allows the user to view details of each and every property. From Admin panel, admin can also search property and manage the latest property news, users, state, city, area, category and receive feedback from the customers. This system makes easier to the user for buying and selling properties online. (i) Draw and explain activity diagram for given case study OR Illustrate AUP process? How it is different that the AU Process.	10
Que. 10	Online Voting System: the features of this system, the admin can manage the candidates, view results, and check feedback. While the user can simply vote for all the available candidates by giving some Basic Details of oneself. This system is A Interactive Way To Solve Conventional Voting. The voters can also easily vote for their favorite person without having to go to the voting area. Also, the admin can easily view voting status. (i) Apply and explain different Testing techniques on given case study.	10

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