



VIT
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

Reg. No: 21BCE1846
Name: Vinhal

Continuous Assessment Test I – January 2023

Programme	: B.Tech. (Computer Science & Engineering)	Semester	: Winter 22-23
Course	: Software Engineering	Code	: BCSE301L
Faculty	: Dr.A.Sherly Alphonse Dr.D.Kavitha Dr. K.P. Vijayakumar Dr.M.Revathi Dr K. Parkavi Dr Smrithy G S	Slot	: C1+TC1
		Class No	: CH2022235000246 CH2022235000241 CH2022235000242 CH2022235000245 CH2022235000240 CH2022235000244
Time	: 1½ Hours	Max. Marks	: 50

Answer ALL the Questions

Q. No.	Sub Sec.	Question Description	Marks
1.		<p>An Online Railway Ticket Reservation System (ORTR) needs to be developed for the convenience of public availing the various services provided by the Railways department.</p> <p>ORTR should provide information about the arrival and departure of trains along with information about stations through which it passes. Search for trains passing through the stations can be obtained either by means of train number, train name, or specifying the source and destination stations. While displaying information about a train, it must display the availability of seats in different classes along with the waiting list position.</p> <p>Users can make payment through online using their credit/debit cards or internet banking. Users can cancel the booked ticket prior to the scheduled departure date and time.</p> <p>Suggest the most appropriate generic software process model that might be used as a basis for managing the development of the ORTR software system. Justify your answer with relevant arguments.</p>	10
2.		<p>You have been asked to develop an "Internet banking application" for your client. The application has been intended to help the customer to perform all their banking transactions online.</p> <p>Apply the Agile Scrum method to build the above system and elaborate the process involved in developing the same with its advantages and limitations. Justify the applicability of Scrum method to the above system.</p>	10
3.		<p>A POS (Point-Of-Sale) system is a computer system typically used to manage the sales in a retail store. It includes hardware components such as a computer, a bar code scanner, a printer, and software to manage the operation of the store. The store owner wants to develop the POS system for a Windows platform.</p> <p>Identify the different types of risks that may pose a threat to the development of the proposed system. With illustration, elaborate on the risk management activities in the development life cycle.</p>	10
4.		<p>Provide a work breakdown structure (WBS) for the Point of Sale (POS) system given in Question number 3. Present a project schedule for the tasks using a chart or any other diagram of your choice by making reasonable assumptions for time and effort.</p>	10
5.	a.	<p>You are asked to develop an online examination system. Apply Extreme Programming planning for developing the system in agile methodology.</p>	5
	b.	<p>Estimate the Effort and Time during the early design phase of the POS system using the basic COCOMO model. The development team is a mix of experienced and inexperienced people in the domain. Assume the size of the code is 10 KLOC. Make necessary assumptions for other factors.</p>	5