VIT
Vellore Institute of Technology
CHENNAI

Continuous Assessment Test 1(CAT) – Aug 2024 -25

Programme	:	B.Tech - BCE, BAI, CPS, BRS	Semester	:	Fall 2024-25
Course Code & Course Title	:	BCSE301L & Software Engineering	Class Number	:	CH2024250100547 CH2024250101316 CH2024250102292 CH2024250100966 CH2024250100970 CH2024250100974 CH2024250101317 CH2024250101380 CH2024250102456 CH2024250100549 CH2024250101315.
Faculty	:	Dr.Jayanthi.R, Dr.Suganeshwari G, Dr.S.Brindha, Dr.G.Saranya, Dr.Alok Chauhan, Dr.Sudharson S, Dr N.M.Elango, Dr.Smrithy G S,Dr. Rama Prabha K. P, Dr. N Ganesh, Dr.Ilakiyaselvan N	Slot	:	G1+TG1
Duration	:	90 Minutes	Max. Mark		50

General Instructions:
- Write only your registration number on the question paper in the box provided and do not write other information.

Answer all questions

Q. No	Sub Sec.	Description	Marks
1.		Imagine you are part of the Scrum team developing the "eBuzz India Ltd." Digital Restaurant Reservation Management System (DRRMS), which utilizes wireless booking technology to enable convenient and self-service table reservations. The success of the system relies heavily on avoiding issues like double bookings and ensuring clear communication of available time slots.	12
	a)	Discuss how your team would implement Scrum and eXtreme Programming (XP) agile testing methods for DRRMS with a neat diagram. (6 Marks)	
	b)	Describe how you would implement an Evolutionary Process Model and list the benefits of using this model for the eBuzz.(6 Marks)	
2.		VIT University is developing a fully automated online examination platform. The platform will allow students to appear for exams online and enable faculty members to assess students' performance. The platform will integrate with V-Top to fetch basic details of students and faculty and will include features such as user authentication, monitoring student behavior during exams, uploading answer scripts, verifying uploaded content, allowing faculty to override students in case of suspicious behavior, and	10

		facilitating the evaluation and publication of results.	
	a)	Develop a Work Breakdown Structure (WBS) for the development of this online examination platform. Break down the project into Five levels of detail, covering all key functionalities such as user authentication, monitoring, content uploading, and result publication. (5 Marks)	
	b)	Explain how the Gantt chart can be used to track project progress and manage any changes that might occur during the development process. (5 Marks)	
3.		Consider the figure: The Function Types and Counts from the above figure follows below: • External Inputs (EI): Password, Panic Button, Activate/Deactivate (3) • External Outputs (EO): Messages, Sensor Status (2) • External Inquiries (EQ): Zone Inquiry, Sensor Inquiry (2) • Internal Logical Files (ILF): System Configuration File (1) • External Interface Files (EIF): Test Sensor, Zone Setting, Activate/Deactivate, Alarm Alert (4) For a moderately complex product, assume (Fi) as 46. Calculate function point analysis.	6
4.		For the "ebuzz India Ltd." DRRMS project mentioned in **Question No :1**, Elaborate three high-likelihood and high-impact risk management process with a neat diagram.	10
5.		A Smart Home Automation System mobile app is developed to allow users to operate various home equipment, including lighting, thermostats, security cameras, and door locks. Users can create profiles for different family members, setting permissions for what each member can control. The system supports manual control and automation through schedules and sensors. Security is a critical concern, and the system must ensure that only authorized users can access or control the devices.	12
	a)	Identify the Functional and Non_Functional requirements for above system and represent the same as per Software Requirement Specification (SRS) template.(6 Marks)	
	b)	Explain how you would engage different stakeholders (e.g., homeowners, security experts, developers) in the Requirements Engineering process for the Smart Home Automation System Mobile App.(6 Marks)	

***********All the best *************