



VIT
Vellore Institute of Technology

School of Information Technology and Engineering

Fall Semester 2022-2023 – Fresher

Continuous Assessment Test – I

Programme Name & Branch: MCA

Course Name & code: Object Oriented Software Engineering & ITA5005

Class Number (s): VL2022230106234, VL2022230106228, VL2022230105116

Slot: F2+TF2

Faculty Name (s): Prof. Sweta Bhattacharya, Prof. Rajiv.S & Asha M.M

Exam Duration: 90 Min.

Maximum Marks: 50

General instruction(s):

Q.No.	Question	Max Marks
1.	Assume that you are a software project manager of SBS systems, the recent project that you intend to develop requires accelerated launch in the market and active user participation in the design process to ensure optimum acceptance. What software process model will you adopt? Explain the stages of the model, Highlight the advantages and disadvantages. (2+4+4)	10
2.	Propose the complete use case diagram for "Online Passport Application" system with relevant notations and stereotypes. Enlist the possible use cases and actors involved..	10
3.	Write a Java/ C++ program for an employee payroll for three designations, permanent technical, contractual technical and non-technical. Explain the concepts of inheritance and polymorphism for the same.	10
4.	Consider the online cab booking application of "OLA CABS" which provides automated cab booking services. Customers can book their cabs with this application. The drivers get access to a driver-specific mobile app on their smart phone once they register with Ola and their identification is verified. The drivers have the flexibility to decide their own time to log in to the Ola application and accept requests for rides from customers. They may choose to remain logged out of the system as per their convenience. Enlist the functional and non- functional requirements.	10
5.	Plot an efficient class diagram For "OLA CABS" with the proper relationships and map the cardinality ratios. Denote the visibility of Objects and operations relevantly.	10

HRM = 10, 20, 30
PA = 30, 40, 50
Base = 70, 80, 90
Total =

Emergency
location auto
save payment
info

Driver
Equipment
Ride
Online Wallet