



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058, India
(Autonomous College Affiliated to University of Mumbai)

28/ Make UP ~~End Semester~~ Examination

January 2020

Max. Marks: 60

Class: T.E.

Course Code: IT51

Name of the Course: Software Engineering

Duration: 3 Hrs.

Semester: V

Branch: I.T.

Instruction:

- (1) All questions are compulsory
- (2) Draw neat diagrams
- (3) Assume suitable data if necessary

Q. No.		Max. Marks	CO-BL-PI
Q.1 a)	Explain various steps involved in SRS with suitable example	6	1-3-3.1.5
Q.1 b)	Explain in detail incremental model with the advantages and disadvantages. Give one example of Incremental model. OR Explain in detail prototyping model with the advantages and disadvantages. Give one example of Incremental model.	6	1-3-1.3.1
Q.2 a)	Explain different types of user interfaces.	6	2-4-3.3.1
Q.2 b)	Illustrate with example different types of coupling	6	2-4-3.3.1
Q.3 a)	Event List for the case study: Garage system is given below <ul style="list-style-type: none">• Customer comes for vehicle check-up.• Inspection is performed.• Is there some problem or just needs some servicing.• If Nothing, prepare Inspection Result and send to Data Store 'Inspection' and also prepare Bill and send to customer• If Servicing, Send to Mechanic for servicing. Prepare Inspection Result and send to Data Store 'Inspection' and also Prepare Bill and send to customer		2-4-3.3.1

	<ul style="list-style-type: none"> • If Part faulty, Prepare Inspection Result and send to Repairing Ask customer if he wants to change the faulty part • If No, Prepare Bill and send to customer. If Yes, check if Part is available. • If not available, 'Order parts'. • If parts ordered, update 'Parts Inventory' • If yes, input 'Work Details' in Data Store 'Work Record'. • Send car to Mechanic for Repair. • Prepare Bill and send to customer <p>(i) Draw the first level DFD (ii) Write the data dictionary entry for 1 process and one data store (iii) Use Case diagram for the same case study (iv) Sequence diagram for any use case</p>	4 2 4 2	
Q.4 a)	<p>Draw the architecture diagram for Railway Reservation as 2 tier (client-server) and 3-tier architecture and discuss</p> <p style="text-align: center;">OR</p> <p>Discuss the architecture pattern of 3 tier architecture</p> <p>Discuss the purpose of design pattern with an example</p>	6 3 3	4-4-4.2.1
Q.4 b)	Disadvantages (Cons) of Critical Path Method (CPM) are overcome by Critical Chain Project Management (CCPM) method-Justify	6	3-4-3.3.2
Q.5 a)	Explain RMMM plan in detail.	6	3-4-2.2.1
Q.5 b)	What do you understand by system testing? What are the different types of system testing that are usually performed on large software products	6	4-3-4.1.2