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

End Semester Examination

Max. Marks: 60	Duration: 3 hr
Class: FYMCA	Semester: I
Course Code: MCA 12	Date: 22/11/19
Subject: Software Engineering	Time:2.00 to 5.00 p.m

Instructions: (1) All questions are compulsory.
(2) Draw neat diagrams
(3) Assume any necessary data but justify the same.

Q No.	Questions	Max. Marks	CO-BL-PI
Q.1 (A)	Can Scrum model be applied for developing Software Projects in a short time ? Give reasons to support your answer. OR Identify and elaborate which model of Agile methodology supports Pair programming and why?	12	1-3-2.4.4
Q.2 (A)	Which time consuming fact finding technique will you make use of to gather requirement from customer? Justify the answer in comparison with other techniques.	6	1-3-3.1.2
(B)	Identify and elaborate Functional and Non Functional requirement for SRS of Library Management system.	6	1-3-3.1.6
Q.3	Use COCOMO II model to estimate enhancement of existing Simple ATM project. The effort required to build software for a project which produces 20 screens and 10 reports. 20% modules are going to use as it was in first version of ATM project. Assume average developer maturity. Find out effort applied.	12	3-4-4.3.3

No. of section contain	Sources of data tables		
	Total < 4 (< 2 servers < 3 clients)	Total < 8 (2 - 3 servers 3-5 clients)	Total 8 + (> 3 servers > 5 clients)
0 - 1	Simple	Simple	Medium
2 - 3	Simple	Medium	Difficult
4 +	Medium	Difficult	Difficult

For Reports

Object Type	Complexity Weight		
	Simple	Medium	Difficult
Screen	1	2	3
Report	2	5	8
3GL Components	-	-	10

Complexity Weight

Developers experience & capability	Productivity (PROD)
Very Low	4
Low	7
Nominal	13
High	25
High	50

Productivity Rate

Q.4			
A	Classify three software application areas in which software safety and hazard analysis would be a major concern.	6	3-3-4.1.2
B	Discuss the reasons for baseline with example.		3-3-4.1.1
	OR	6	3-3-4.1.1
B	Determine role of Version Control and Change Control in SCM.		
Q.5	Answer the following:		
A	Which Testing Technique (Black Box or White Box) is more suitable for following situations:	8	4-5-4.1.2
a)	A user logged in when inputs a present username and correct password		
b)	A user receives an error message when enters username and incorrect password		
c)	Design system based on requirements		
d)	Design Compiler Construction Tool		
B	List and explain the advantages of Modular Design in Software Designing.	4	3-4-1.3.1