

Name: Siveaba . V.S

Roll No: 59



Rajagiri College of Social Sciences (Autonomous)
Continuous Assessment Examination - 1

January 2023

II MCA

Code: MCA203

Total Time: 90 minutes

Sub: Advanced Software Engineering

Total Marks: 40

Level	Blooms Taxonomy Levels of Learning
L1	Remembering
L2	Understanding
L3	Applying
L4	Analyzing
L5	Evaluating
L6	Creating

SECTION A

Each Question has 10 marks

Sl.no	Question	CO Mapped	Bloom's Taxonomy level
1	Write down the generic process framework that is applicable to any software project / relationship between work product, task, activity and system	CSDA304(2).1	L2
2	List the principles of agile software development.	CSDA304(2).1	L2

OR

3	For the scenario described below, which life cycle model would you choose & explain it briefly? Give the reason why you would choose this model. <i>"You are interacting with the MIS department of a very large oil company with multiple departments. They have a complex regency system. Migrating the data from this legacy system is not an easy task and would take a considerable time. The oil company is very particular about processes, acceptance criteria and legal contracts.."</i>	CSDA304(2).2	L3
---	--	--------------	----

SECTION B

Each Question has 10 marks

Q4	Explain the execution of seven distinct functions accomplished in requirement engineering process and also explain activities performed in requirement elicitation with watch system that facilitates to set time and alarm as an example.	CSDA304(2).1	L2
5	Consider the process of ordering a pizza over the phone. <i>Draw the use case diagram and also sketch the activity diagram representing each step of the process, from the moment you pick up the phone to the point where you start eating the pizza. Include activities that others need to perform. Add exception handling to the activity diagram you developed. Consider at least two exceptions.(Ex : Delivery person wrote down wrong address, deliver person brings wrong pizza).</i>	CSDA304(2).2	L3
OR			
Q6	Explain the Design Concepts and also describe the qualitative criteria for measuring functional independency?	CSDA304(2).2	L3

Name:
Reg. No.:

Rajagiri College of Social Sciences (Autonomous)
Second semester MCA Degree Examination
April, 2023
(Regular – 2022 admissions)

Code: 4543
Sub: (MCA203) Advanced Software Engineering

Max. Marks: 75
Duration: 3 Hrs.

SECTION A

Answer any **TEN** questions.
(Each question carries 3 marks)

[$10 \times 3 = 30$]

- ✓ 1. Compare and contrast between waterfall model and spiral model.
- ✓ 2. Deliberate on validating requirements in a project.
- ✓ 3. Is it possible to assess the quality of software if the customer keeps changing what it is supposed to do?
- ✓ 4. What is re-engineering?
- ✓ 5. What is the relevance of DevOps in the current industry?
- ✓ 6. Why is agile development important?
- ✓ 7. Do you design software when you “write” a program? What makes software design different from coding?
- ✓ 8. Explain model based testing.
- ✓ 9. Give an example of LOC based estimation.
- ✓ 10. List out the annotations used for JUnit testing.
- ✓ 11. What is verification and validation with respect to software testing?
- ✓ 12. List out the different software re-engineering activities.

SECTION B

Answer **ALL** questions.
(Each question carries 9 marks)

[$5 \times 9 = 45$]

- ✓ 13. Discuss the advantages of agile methodology over other project methodologies.

[OR]

(b) Why is agility a watchword in modern software engineering work?

- ✓ 14. (a) How can you develop an activity diagram? Explain with the help of an example.

[OR]

✓ 14. (b) Explain requirements engineering. What are the different tasks that occur in parallel with requirements engineering?

P.T.O

15

(a) Describe the conventional software testing strategy in detail.

[OR]

(b) Explain SQA tasks, goals and metrics in detail.

16

(a) How does a software team generate reliable estimates of effort, cost, and project duration?

[OR]

(b) Make a detailed comparison between Project and process metrics.

17

(a) What is the importance of Selenium? Explain.

[OR]

(b) Explain the life cycle of DevOps.

Rajagiri College of Social Sciences (Autonomous)
Continuous Assessment Examination - 1
February 2022
II MCA

Code:MCA203
Sub: Advanced Software Engineering

Total Time : 1 hr
Total Weightage : 16

SECTION A

Each question has a weightage of 4

- 1) Why is the requirement analysis often considered critical? Explain the requirements engineering process. (Embedded Question – Compulsory)
- 2) Diagrammatically illustrate and discuss the phases in the Spiral model. Also list its merits and demerits.

OR

- 3) With a neat sketch discuss the Agile Scrum Framework.

SECTION B

Each question has a weightage of 4

- 4) Discuss Data Modelling with suitable examples – (Embedded Question – Compulsory)
- 5) What is user Interface design? Why is it an important aspect of software development? List the golden rules of User Interface Design

OR

- 6) Discuss any 3 design concepts with suitable examples.

Name:

Roll No:



Rajagiri College of Social Sciences (Autonomous)
Continuous Assessment Examination - II

March 2023

II MCA

Code: MCA203

Total Time : 90 minutes

Sub: Advanced Software Engineering

Total Marks : 40

Level	Blooms Taxonomy Levels of Learning
L1	Remembering
L2	Understanding
L3	Applying
L4	Analyzing
L5	Evaluating
L6	Creating

SECTION A

Each Question has 10 marks

Sl.no	Question	CO Mapped	Bloom's Taxonomy level
1	Write formulas for cyclomatic complexity for testing a convention application? Calculate cyclomatic complexity for $V(G)=4$	MCA 203.3	L4
2	What is called as glass box testing? What is the objective of this?	MCA 203.3	L2

OR

3	Define Quality for software. List and explain SQA activities.	MCA 203.3	L3
---	---	-----------	----

SECTION B

Each Question has 10 marks

4	Explain briefly about project management concepts in detail	MCA 203.4	L2
5	Discuss about the software metrics for small organizations.	MCA 203.4	L2

OR

6	Brief about function point measure? How to measure quality and defect removal efficiency?	MCA 203.4	L4
---	---	-----------	----

Rajagiri College of Social Sciences (Autonomous)
Continuous Assessment Examination - 2
April 2022
II MCA

Code: /MCA203

Sub: Advanced Software Engineering

Total Time : 1 hr.

Total Weightage : 16

SECTION A

Each question has a weightage of 4

1. Why is testing an important activity in the life cycle of a software. Elaborate on the levels of testing – (Embedded Question – Compulsory)
2. What is testing? Explain white box testing methods in detail.

OR

Discuss the object oriented testing strategies in detail

SECTION B

Each question has a weightage of 4

3. Why is maintenance important? What are the challenges in maintenance?
Explain the types of Maintenance. – (Embedded Question – Compulsory)
4. Discuss Function Point metric with an example

OR

Discuss risk management in detail

Reg. No. :

Rajagiri College of Social Sciences (Autonomous)

Second semester MCA Degree Examination

April, 2022

(Regular/Supplementary – 2020 Admission onwards)

Code: 4118

Max. Weightage: 30

Sub: (MCA203) Advanced Software Engineering

Duration: 3 Hrs.

SECTION A

*Answer any **TEN** questions.*

(Each question carries a weightage of 1)

[10 X 1 = 10]

- 1 Brief the importance of agile model in software project development.
- 2 What are use cases? How can you define use cases?
- 3 What is verification and validation with respect to software testing?
- 4 Explain software maintenance.
- 5 What is JUnit?
- 6 Detail on industrial XP.
- 7 What is the difference between content architecture and WebApp architecture?
- 8 Discuss about unit testing.
- 9 Elucidate on the relevance of software sizing.
- 10 Discuss the various features of git.
- 11 What is agility?
- 12 Discuss the pros and cons of Dev Ops.

SECTION B

*Answer **ALL** questions.*

(Each question carries a weightage of 4)

[5 X 4 = 20]

- 13 (a) What is agile software development? How does it differ from the traditional process models?

[OR]

- (b) Describe in detail about the scrum process flow.

- 14 (a) Discuss about the design modelling principles.

[OR]

- (b) Detail on the design process of a software project.

- 15 (a) Describe the conventional software testing strategy in detail.

[OR]

- (b) Explain the testing process of a conventional application.

P.T.O

~~16~~

(a) Make a detailed comparison between Project and Process Metrics.

[OR]

(b) Explain the various metrics for software quality.

~~17~~

(a) Discuss the features and relevance of Selenium.

[OR]

(b) Detail about the various DevOps components.