

| | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

MCA

SEM: II - THEORY EXAMINATION (2023 - 2024)

Subject: Software Testing

Time: 3 Hours

Max. Marks: 100

General Instructions:

IMP: Verify that you have received the question paper with the correct course, code, branch etc.

1. This Question paper comprises of three Sections -A, B, & C. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.
2. Maximum marks for each question are indicated on right -hand side of each question.
3. Illustrate your answers with neat sketches wherever necessary.
4. Assume suitable data if necessary.
5. Preferably, write the answers in sequential order.
6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION-A

20

1. Attempt all parts:-

1-a. UML is used for (CO1)

1

- (a) design
- (b) testing
- (c) implementation
- (d) None of the above

1-b. Which of the following is not a testing phase? (CO1)

1

- (a) Test Planning
- (b) Test Design
- (c) Test Closure
- (d) Test Development

1-c. Level of testing means (CO2)

1

- (a) system testing
- (b) Unit testing
- (c) Integration testing
- (d) All of the mentioned

1-d. Functional testing is a ----- (CO2)

1

- (a) Test design technique
- (b) Test level
- (c) SDLC Model

- (d) Test type
- 1-e. Which are benefits of static testing? (CO3) 1
- (a) Early feedback of a quality
 - (b) Less rework cost
 - (c) Increased developmental productivity
 - (d) All of the above
- 1-f. Which is a formal review technique? (CO3) 1
- (a) Walk through
 - (b) peer to peer review
 - (c) Inspection
 - (d) All of the above
- 1-g. Locating or identifying the bugs is known as _____ (CO4) 1
- (a) Design
 - (b) Testing
 - (c) Debugging
 - (d) Coding
- 1-h. White Box testing is also known as _____ (CO4) 1
- (a) closed box
 - (b) structural testing
 - (c) Gray box testing
 - (d) None of the mentioned
- 1-i. Which of the following is not a primary objective of test management? (CO5) 1
- (a) Planning test activities
 - (b) Executing test cases
 - (c) Monitoring test progress
 - (d) Defect management
- 1-j. Test estimation techniques are used to (CO5) 1
- (a) Determine the number of test cases
 - (b) Define the testing schedule
 - (c) Allocate resources for testing
 - (d) All of the above

2. Attempt all parts:-

- 2.a. Explain bugs and defects. (CO1) 2
- 2.b. Define waterfall model. (CO2) 2
- 2.c. Define the Term Static Testing. (CO3) 2
- 2.d. Explain the various testing activities. (CO4) 2
- 2.e. Define the term Test Organization. (CO5) 2

SECTION-B

30

3. Answer any five of the following:-

- 3-a. Differentiate between pesticide paradox and defects clustering. (CO1) 6
- 3-b. Discuss the psychology of a developer and a tester. (CO1) 6
- 3-c. Explain the main advantages of incremental model? (CO2) 6
- 3-d. Explain the meaning of entry and exit criteria mean in a project. (CO2) 6
- 3.e. Describe Roles in Review. (CO3) 6
- 3.f. Explain statement and path testing in detail. (CO4) 6
- 3.g. Describe the Process of Configuration Management. (CO5) 6

SECTION-C

50

4. Answer any one of the following:-

- 4-a. Discuss how human psychology affects software testing and compare the typical mindsets of testers and developers. (CO1) 10
- 4-b. Differentiate between testing and debugging. Why are both activities necessary in the software development lifecycle? (CO1) 10

5. Answer any one of the following:-

- 5-a. Define the following: (i) Security Testing (ii) Load Testing (iii) Reliability testing. (CO2) 10
- 5-b. Define the following: (i) Retesting Testing (ii) Accountability Testing (iii) Recovery testing. (CO2) 10

6. Answer any one of the following:-

- 6-a. Define the following: (i) Static Testing (ii) Dynamic Testing (iii) Review. (CO3) 10
- 6-b. Define the following: (i) Ad Hoc Review (ii) Checklist based. (CO3) 10

7. Answer any one of the following:-

- 7-a. Explain benefits of Checklist-based testing techniques with an example. (CO4) 10
- 7-b. Discuss different techniques of Black Box Testing Techniques. (CO4) 10

8. Answer any one of the following:-

- 8-a. Define the following: (i) Process Metrics (ii) Project Metrics (iii) Product Metrics. (CO5) 10
- 8-b. Explain the purpose of test monitoring and control and describe the metrics commonly used in this process. (CO5) 10