

- (OR)
- b. SRM technology wants to improve their security policy followed in development and operations department, if you are asked to apply PDCA mechanism for this scenario. How will you do it?

[illegible]

15SE211 – REQUIREMENTS ENGINEERING
(For the candidates admitted during the academic year 2015 – 2016 onwards)

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(i) **Part - A** should be answered in OMR sheet within first 45 minutes and OMR sheet should be handed over to hall invigilator at the end of 45th minute.

(ii) **Part - B** and **Part - C** should be answered in answer booklet.

Max. Marks: 100

Answer **ALL** Questions

- 14MA1-6/15SE211

9. Which of the following is not one of the four types of data flow diagram?
 (A) Current physical (B) Current logical
 (C) Updated physical (D) New physical
10. Data flow diagrams that specify what people and technologies are used in which processes to move and transform data, accepting inputs and producing outputs are referred to as
 (A) Logical data flow (B) Reference data flow
 (C) Current physical data flow (D) Non-reference data flow
11. Which one of the following is a requirement that fits in developer module?
 (A) Availability (B) Testability
 (C) Usability (D) Flexibility
12. Which is not relevant to the quality of software requirement specification?
 (A) Traceable (B) Comprehend
 (C) Concise (D) Complete
13. Which is not the source of change?
 (A) Organization strategy (B) Budget
 (C) Market condition (D) Customer needs
14. How many scenarios are there in elicitation activities?
 (A) One (B) Two
 (C) Three (D) Four
15. Use case diagram is a
 (A) Functional modeling (B) Non-functional modeling
 (C) Flow modeling (D) Non-case modeling
16. Software architecture is used for
 (A) Non-functional modeling (B) Functional modeling
 (C) Use case modeling (D) Modeling
17. Requirement traceability is used for
 (A) Design the code (B) Design the system
 (C) Design the test case (D) Development
18. The process through which the customers, buyers, or users of a software system discover, reveal, articulate and understanding their requirements
 (A) Analysis (B) Specifications
 (C) Elicitation (D) Validation
19. What is the need of data flow diagram?
 (A) To model the activity (B) To model the functional property
 (C) To model the function and data (D) To model only data
20. Which is not a part of PDCA?
 (A) Procedure (B) DO
 (C) Check (D) Plan

PART – B (5 × 4 = 20 Marks)
 Answer ANY FIVE Questions

21. How will you categorize the requirements? Give some examples.
22. Draw the data flow diagram for money withdraw in an ATM.
23. List out the different ways in which requirements elicitation process can be done.
24. Discuss in brief about requirement validation methods.
25. What are the steps involved in formal review? Who are all the participants involved in it?
26. Draw the usecase diagram for software automation in courier office.
27. Give a brief study on requirement engineering tools.

PART – C (5 × 12 = 60 Marks)
 Answer ALL Questions

28. a. City union bank wants to develop a software for the ATM machine. Assume that you are assigned as the requirements analyst. Model the non-functional requirements with respect to various view point involved in ATM? Model the functional requirements using use case diagram.
 (OR)
 b. Draw and explain requirements engineering process framework for requirements generation in detail.
29. a. SRM wants to develop a intranet messenger for their students and faculty to communicate. They want to build it on development over iteration with feedback. New features can be added in iterations. What kind of prototype will you suggest? Explain it with some scenarios.
 (OR)
 b. What are the advantages and disadvantages of different requirement elicitation process? Which one will you prefer for real time software development with no clear requirements?
30. a. Imagine you are appointed as GM of a company? You find that the requirements validation in the product development is lagging. How will you solve this problem to attain quality?
 (OR)
 b. Illustrate with a neat diagram about how the components of integrated quality approach working together.
31. a. A popular mobile network provider wants to build a new technology called 5G. The requirements for this project will be from different stakeholders in the form of government regulations, industry standards, market needs, contractual commitments and consumer expectations. What will you suggest for managing the diversity of requirement to successfully complete the project? Explain it with a scenario.

(OR)