

30. a. Briefly explain in detail about various requirement validation techniques.

(OR)

b. Write short notes on the following document

- (i) Structure of document
- (ii) Development of user manual

31. a. Briefly explain in detail about components of integrated quality approach as a term of business drives of quality.

(OR)

b. Briefly explain in detail about requirement traceability models.

32. a. Write short notes on the following DOORS requirements management tool

- (i) History and version control
- (ii) Attributes and views

(OR)

b. Briefly explain in detail about the DOORS architecture with a neat diagram.

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Reg. No.

B.Tech. DEGREE EXAMINATION, NOVEMBER 2018

1st to 6th Semester

15SE211 – REQUIREMENTS ENGINEERING

(For the candidates admitted during the academic year 2015 – 2016 to 2017-2018)

Note:

- (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.

Time: Three Hours

Max. Marks: 100

PART – A (20 × 1 = 20 Marks)

Answer ALL Questions

1. _____ is the process of determining user expectations for a new or modified product.
(A) Requirement engineering (B) Software process
(C) Data gathering (D) Software testing
2. In requirement engineering _____ is the practice of collecting the requirements of a system from users, customers and stakeholders.
(A) Requirements negotiation (B) Requirement gathering
(C) Requirement verification (D) Requirement validation
3. Which one of the following is not a step of requirement engineering?
(A) Elicitation (B) Analysis
(C) Design (D) Documentation
4. Types of requirement does not include
(A) Functional requirements (B) Non-functional requirements
(C) Domain requirements (D) Testing requirements
5. _____ is a graphical representation of the flow of data through an information system, modelling its process aspects.
(A) Data flow diagram (B) E-R diagram
(C) View points (D) SADT
6. _____ refers to a one-on one conversation with one person acting in the role of the interviewer and the other in the role of the interviewee.
(A) Questionnaire (B) Interview
(C) Walkthrough (D) Brain storming
7. _____ is a group creativity technique by which efforts are made to find a conclusion for a specific problem by gathering a list of ideas contributed by its members.
(A) Analysis (B) Review
(C) Brainstorming (D) Audit

8. _____ is a list of actions or event steps, typically defining the interactions between a role and a system to achieve a goal.
 (A) Dataset (B) Worst case
 (C) Test case (D) Use case
9. _____ created for any specific project will heavily depends on the type of project, the needs, preferences of your business and technical stakeholders and business analysis standards.
 (A) SRS (B) Requirement documents
 (C) Design documents (D) Test documents
10. A _____ is an early sample, model, or release of a product built to test a concept or process or to act as a thing to be replicated or learned from.
 (A) Prototype (B) RAD
 (C) Quick and fix (D) Reuse
11. _____ is a technical communication document intended to give assistance to people using a particular system.
 (A) Indexes (B) Book
 (C) User manual (D) Test report
12. _____ is a final check of the document as a clear statement of the stakeholder need.
 (A) Analyzing (B) Checking
 (C) Verification (D) Validation
13. _____ is imperative for our continued existence in organization.
 (A) Customer satisfaction (B) Quality
 (C) Feedback (D) Money
14. The components of an integrated quality approach may be described as _____.
 (A) Project (B) Tasks
 (C) Data (D) Management, customers, projects and tasks
15. Which of the following is not a requirement management activity?
 (A) Analysis (B) Investigation
 (C) Design (D) Construction and test
16. _____ captures all requirements proposed by the client or development team and their traceability in a single document delivered at the conclusion of life cycle.
 (A) Quality function deployment (B) Checklist
 (C) Requirement traceability matrix (D) SRS
17. _____ is a multi-platform, enterprise wide requirements management tool designed to capture, link, trace and analyze wide range of project information
 (A) OOPS (B) C
 (C) C++ (D) DOORS
18. The information in a DOORS database is stored in form of _____.
 (A) Modules (B) Data sets
 (C) CSV files (D) Text files

19. An object identifier in DOORS is made up of
 (A) Suffix (B) Prefix and absolute number
 (C) Numbers (D) Zero's
20. _____ provides a means to annotate modules and objects with related information
 (A) Rows (B) Columns
 (C) Attributes (D) Tuples

PART – B (5 × 4 = 20 Marks)

Answer **ANY FIVE** Questions

21. Are requirements important? Highlight the difficulties in requirement engineering.
22. Discuss about the requirement representation: View point.
23. Explain the concept of prototyping and its types.
24. Discuss about the elicitation process questionnaires and its various ways of framing questions.
25. What is meant by elicitation notes, specify its vision and scope.
26. Explain the concept of integrated quality approach.
27. Write a short notes about objects in DOORS requirement management tool.

PART – C (5 × 12 = 60 Marks)

Answer **ALL** Questions

- 28.a.i. Outline the various sources of requirements in detail.
- ii. Relate the requirement engineering life cycle with respect to the activities of software engineering life cycle.
- (OR)**
- b. Draw all possible representation of requirement diagram to implement smart ration card system for the following
 (i) Data flow diagram
 (ii) View points
29. a. Build a use case scenario to implement airport check in an security screening business model with use case template description. Set the simple questionnaires to retrieve the requirements from stakeholders.
- (OR)**
- b. Discuss in detail about the following requirement elicitation techniques with its pros and cons.
 (i) Interview
 (ii) Prototype