30. a. Explain the following requirement validation technique
    (i) Inspection
    (ii) Review
    (iii) Walk through

(OR)

b.i. State the necessary information present in user manual.

ii. Prototyping assist in requirement validation. Justify.

31. a. Explain the PDCA cycle with a neat sketch.

(OR)

b. Discuss the requirement traceability models:
Traceability matrix, list and tree

32. a. Write short notes on the following
    (i) History and version control
    (ii) Traceability report

(OR)

b. Explain the architectural of DOORS with a neat sketch.

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Reg. No.														

B.Tech. DEGREE EXAMINATION, MAY 2017
Third / Fourth Semester

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

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. The fundamental process with requirements engineering do not include
   (A) Elicitation (B) Optimization
   (C) Specification (D) Validation

2. A good requirements specification for E-commerce system needs to provide answer to
   (A) What algorithm should be used? (B) How can the system be implemented?
   (C) What data structures should be used? (D) What should be the response time of the system?

3. Requirement elicitation means
   (A) Gathering of requirements (B) Capturing of requirements
   (C) Understanding of requirements (D) Validating requirements

4. Which one is not a requirement elicitation technique?
   (A) Interviews (B) Use case approach
   (C) Data flow diagram (D) FODA

5. Which of the following is not a functional requirement?
   (A) Efficiency (B) Product features
   (C) Reliability (D) Stability

6. _____technique which assist in three phase of requirement engineering life cycle
   (A) Prototyping (B) Use case
   (C) Dataflow diagram (D) Interview

7. _____represents the stakeholders who do not use the system but influence the requirements in some way.
   (A) Inter actor view points (B) Domain view points
   (C) Indirect view points (D) Business view points

8. The individual or organization who wants a product to be developed is
   (A) User (B) Domain expert
   (C) Buyer (D) Client

9. Is the origin of the requirement clearly stated is verified by
   (A) Verifiability (B) Traceability
   (C) Adaptability (D) Comprehensibility

10. Which is not relevant to the quality of software requirement specification?
   (A) Traceable (B) Comprehend
   (C) Concise (D) Complete

11. _____defines the functional relationship between system elements and between system elements and environment.
   (A) Product requirement (B) Process requirement
   (C) Logistic requirement (D) Interface requirement

12. Users of requirement documents are
   (A) Customers (B) Managers
   (C) End users (D) System engineers

13. Which is not the source of change?
   (A) Organization strategy (B) Budget
   (C) Market condition (D) Customer needs

14. An organized examination process of the requirement is
   (A) Review (B) Desk-check
   (C) Inspection (D) Walk-through

15. A _____should comprise few question so that the reviewer can use it during validation.
   (A) Check list (B) Questionnaire
   (C) Test case (D) Models

16. Quality improvement techniques are
   (A) Brainstorming (B) Multivoting
   (C) Inspection (D) Check list

17. DOORS database is stored in the form of
   (A) Object (B) Modulus
   (C) Files (D) Folders

18. DOORS modulus are containers for
   (A) Objects (B) Methods
   (C) Records (D) Data sets

19. The object identifier in DOORS is made of
   (A) Section number, object heading (B) A prefix, an absolute number
   (C) Section number, prefix (D) Absolute number, object ID

20. _____indicates the unsaved changes made in the current session in DOOR tools.
   (A) Green (B) Blue
   (C) Red (D) Yellow

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

21. Comment on the following requirements. Are they complete, clear and verifiable? If not, reformulate them
   (i) The database shall store ten years of records
   (ii) The processing time of incoming request should be a minimal one

22. Non functional requirements are measurable. Justify. Give three functional requirement for banking application.

23. List the various components associated with requirement representation technique SADT.

24. Write a short note on feature oriented domain analysis.

25. Write a note requirement validation.

26. What is the necessity for requirement traceability? Give its importance.

27. Write a note on baselining and view in doors.

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

28. a. Draw the requirement representation diagram to implement smart ration card for the following
   (i) Data flow diagram
   (ii) View points
   (iii) Use case

(OR)

b.i. Relate the requirement engineering life cycle with respect to the activities of SDLC.

ii. Outline the various sources of requirements.

29.a.i. Construct a simple questionnaires to retrieve the requirement for a simple mail server. (8 Marks)

ii. Comment on the following stakeholders with respect to requirement engineering: (4 Marks)
   (i) Market research specialist
   (ii) Domain expert

(OR)

b.i. Ethonography and social analysis is kind of elicitation technique. Justify.

ii. Write a note on types of interviews to collect requirements.