b. Develop an SRS for developing a module on "choosing a course" considering a part of any academic software.

32. a. Describe the reverse engineering process in detail.

(OR)

b. Compare and contrast the various restructuring types.

* * * * *

Reg. No.														

B.Tech. DEGREE EXAMINATION, JUNE 2019

1st to 7th Semester

15SE202 – SOFTWARE ENGINEERING PRINCIPLES

(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. _____ when executed provide desired features, function and performance.
   (A) Instructions (B) Data structures
   (C) Documentation (D) Configuration

2. **Which** software application focus on limited market place to address mass consumer market.
   (A) System (B) Embedded
   (C) Product line (D) Web apps

3. Assessing progress against the project plan is an activity of
   (A) Software project tracking and control (B) Formal technical reviews
   (C) Software quality assurance (D) Software configuration management

4. **Which** approach is suitable when objectives defined by customer are general but does not have details
   (A) Incremental (B) Prototyping
   (C) Agile (D) Waterfall

5. _____ determines the value of each function required of the system.
   (A) Function deployment (B) Information deployment
   (C) Task deployment (D) Value analysis

6. _____elements are implied by scenarios.
   (A) Functional (B) Class
   (C) Behavioral (D) Flow oriented

7. 
represents
   (A) Actor (B) Use case
   (C) System (D) User

8. _____classes are used to create interface.
   (A) Entity (B) Boundary
   (C) Controller (D) Behavioural

9. A program should not have any bugs that inhibit its function refers to
   (A) Firmness (B) Commodity
   (C) Delight (D) Principle

10. Compartmentalization of data and function
   (A) Abstraction (B) Architecture
   (C) Pattern (D) Modularity

11. _____ is an indication of the relative functional strength of a module.
   (A) Cohesion (B) Coupling
   (C) Interaction (D) Dependence

12. A large program composed of a single module
   (A) Modularity (B) Monolithic software
   (C) Abstraction (D) Polymorphism

13. Business goals are identified within the context of four key drivers
   (A) Business definition (B) Process identification
   (C) Process evaluation (D) Process specification

14. A program with weak data architecture requires
   (A) Reverse engineering (B) Document restructuring
   (C) Code restructuring (D) Data restructuring

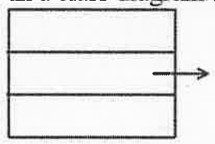
15. Cost benefit = C_{reeng} –_____
   (A) C_{maint} (B) Expected life
   (C) C_{reeng} (D) Reengineering risk factor

16. Formal verification methods are applied to uncover errors in the design
   (A) Planning (B) High level design
   (C) Development (D) Post mortem

17. _____ model is suitable when risk plays major factor.
   (A) Waterfall (B) Spiral
   (C) Incremental (D) Prototype

18. A prioritized list the project requirements that provide business value for the customer
   (A) Backlog (B) Sprints
   (C) Scrum (D) Demos

19. In a class diagram the middle compartment refers to



   (A) Class name (B) Attributes
   (C) Functions (D) Object

20. _____ identifies the source of each requirement.
   (A) Features traceability (B) Source traceability
   (C) Interface traceability (D) Dependency traceability

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

21. List out the characteristics that make software different from other things human being build.

22. Compare and contrast spiral with winwin spiral model

23. Categorize the types of quality function deployment.

24. Summarize the elements of requirements analysis.

25. Draw the pattern template.

26. Describe any two black box testing methods.

27. Represent a business process reengineering model.

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

28. a. Prove three examples of software development projects that would be amenable to prototyping. Name two applications that would be more difficult to prototype.

(OR)

b. Identify which model would be appropriate for the following projects and justify merits and demerits with diagrams (i) an incremental complier for Java (ii) a guidance system for an interplanetary probe.

29. a.i. Draw an use case diagram for a car rental service. (8 Marks)

ii. Illustrate the basic guidelines required for collaborative requirements gathering. (4 Marks)

(OR)

b. There are many different ways to look at the requirements for a computer based system. Summarize the different modes of representation that force the software team to consider requirements from different viewpoints.

30. a. Write a note on fundamental software design concepts that provide a necessary framework for getting it right.

(OR)

b.i. Illustrate a component from object oriented and conventional point of view. (8 Marks)

ii. List out the principles that guide the designer as each software component is developed. (4 Marks)

31. a. Compare and contrast the various coding styles and standards.

(OR)