Reg. No.														

B.Tech. DEGREE EXAMINATION, MAY 2019
3rd to 8th 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. What is a software?
   (A) Software is set of programs
   (B) Software is documentation and configuration of data
   (C) Software is set of programs, documentation and configuration of data
   (D) Software is a set of processes
2. RAD stands for
   (A) Relative Application Development
   (B) Rapid Application Development
   (C) Rapid Application Document
   (D) Rapid Application Delivery
3. Agile software development is based on
   (A) Incremental development
   (B) Iterative development
   (C) Linear development
   (D) Both incremental and iterative development
4. Which of the following activities of a generic process framework provides a feedback report?
   (A) Communication
   (B) Planning
   (C) Modeling and construction
   (D) Deployment
5. Which one of the following is not a step of requirement engineering?
   (A) Elicitation
   (B) Design
   (C) Analysis
   (D) Documentation
6. QFD stands for
   (A) Quality Function Design
   (B) Quality Function Development
   (C) Quality Function Deployment
   (D) Quality Function Definition
7. Which is one of the most important stakeholder from the following?
   (A) Entry level personnel
   (B) Middle level stakeholder
   (C) Managers
   (D) Users of the software
8. Which of the following is not a diagram studied in requirement analysis?
   (A) Use cases
   (B) Entity relationship diagram
   (C) State transition diagram
   (D) Activity diagram

9. A step by step instruction used to solve a problem is known as
   (A) Sequential structure (B) A list
   (C) A plan (D) An algorithm

10. Who designs and implement database structures?
   (A) Programmers (B) Project managers
   (C) Technical writers (D) Database administrators

11. The primary objective of _____is to develop a modular program structure and represent the control relationships between modules.
   (A) Architectural design (B) Object oriented design
   (C) Function oriented design (D) Interface design

12. The advantages of the _____are objects are loosely coupled, the implementation of objects can be modified without affecting other objects.
   (A) Architectural model (B) Object oriented model
   (C) Function oriented model (D) Domain specific model

13. Which of the following term describes testing?
   (A) Finding broken code (B) Evaluating deliverable to find errors
   (C) A stage of all projects (D) Finding faults with the stakeholders

14. The testing in which code is checked
   (A) Black box testing (B) White box testing
   (C) Red box testing (D) Green box testing

15. Software mistakes during coding are known as
   (A) Errors (B) Failures
   (C) Bugs (D) Defects

16. What is testing process's first goal?
   (A) Bug prevention (B) Testing
   (C) Execution (D) Analyzer

17. BPR stands for
   (A) Business Process Re-engineering (B) Business Product Re-engineering
   (C) Business Process Requirements (D) Business Product Release

18. When does one decides to re-engineer a product?
   (A) When tools to support restructuring are disabled (B) When system crashes frequently
   (C) When hardware or software support becomes obsolete (D) Subsystems of a larger system require few maintenance

19. The core of reverse engineering is an activity called
   (A) Restructure code (B) Directionality
   (C) Extract abstractions (D) Interactivity

20. Forward engineering is also known as
   (A) Extract abstractions (B) Renovation
   (C) Reclamation (D) Both renovation and reclamation

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

21. Define software process.

22. List the tasks regions in the spiral model.

23. What is requirement engineering? Write the ways to elicit requirements.

24. Specify the benefits of prototyping.

25. Write about coupling. Mention the types of coupling.

26. Write short note on block box testing.

27. Define reverse engineering and reengineering.

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

28. a. Analyse the software development process followed in Water fall model and spiral model. Mention the best parties followed in each model. Give the advantages and disadvantages of the both.

(OR)

b. Write about
   (i) Scrum
   (ii) Adaptive Software Development (ASD)

29. a. What is requirement engineering? State its process and explain requirements elicitation problem.

(OR)

b. List down and explain in detail about all modeling techniques in software requirements.

30. a. Explain the fundamental software design concepts in detail.

(OR)

b. With a neat sketch, explain in detail the user interface design process.

31. a. Elaborate the testing objectives and its principles.

(OR)

b.i. Discuss the differences between black box and white box testing. (8 Marks)

ii. Explain boundary value analysis. (4 Marks)

32. a. With a neat sketch, discuss the software reengineering process model and the software reengineering activities.

(OR)

b. Analyze the various soft trends in software engineering.

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