NAME: .... NUMBER: ....
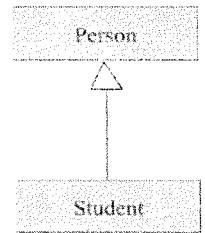
Q1: ANSWER THE FOLLOWING QUESTIONS

1. What is meant by Distributed systems and their design issues
2. Compare between Thin- and fat-client architectural models
3. List three types of AGILE approach
4. draw diagram show the main component of scrum approach
5. list Factors influencing the choice of plan-based or agile development

Q2: CHOOSE THE CORRECT ANSWER

1. A meeting with the team to select a set of work from the product backlog to deliver during a sprint.
   a.Sprint planning session   b. Sprint reviews   c. Sprint retrospectives
2. An approach to writing requirements where the freedom of the requirements writer is limited, and requirements are written in a standard way.
   A. Structured Specifications   B. Tabular Specification
   D. Graphical Models   C. Natural Language Specification
3. The process of converting the system specification into an executable system
   A. software Development   B. Design and implementation   C. Evaluation
4. Which of the following diagram is time oriented?
   a) Collaboration   b) Sequence   c) Activity   d) None of the mentioned
5. Which model in system modelling depicts the dynamic behavior of the system
   a) Context Model   b) Behavioral Model   c) Data Model   d) Object Model
6. a high-level abstract statement of a service or of a system constraint to a detailed mathematical functional specification.
   A. Requirements   B. validation   C. Specification
7. Software process, where the software is checked to ensure that it is what the customer requires
   a. validation   b. development   c. specification   d. evolution
8. Testing customer data to check that the system meets the customer's needs.
   A. component   B. system   C. Acceptance
9. Development approach in which All developers utilize code refactoring.
   a. extreme programming   b. sequential approach   c.waterfall
10. A short meeting for the development team to share progress and challenges and plan work for the day
    a. Daily stand-up   b. retrospectives   c. Sprint reviews   d. Sprint reviews
11. Constraints on the services or functions offered by the system
    a) Functional   b) Non-Functional   c) Domain Requirement   d) User requirements
12. an example of structure diagram
    a. Class diagram   b. activity diagram   c. use case diagram   d. interaction diagram
13. show interactions between actors and the system and between system components
    a.Class diagram   b. sequence diagram   c. use case diagram   d. activity diagram

14. show the interactions between a system and its environment.

a. Class diagram   b. sequence diagram   c. use case diagram   d. activity diagram

15. one characteristic of Distributed system in which we can Increase throughput by adding new resources

A. Scalability   b. resource sharing   c. concurrency   d. openness

16. ....architecture, which is used in real-time systems in which guaranteed interaction response times are required

a. Two-tier client-server   B. Master-slave   c. Multi-tier client-server

17. an approach to structuring a software system as a set of separate, stateless services.

a. SaaS   b. SOA   c. Middle ware

18. What type of relationship is represented by person class and student

a) Realization   b) Generalization   c) Aggregation   d) Dependency

19. The following message is

a. Asynchronous   b. Synchronous   c. Return Message

20. What type of core-relationship is represented by the symbol in the figure below?

a) Aggregation   b) Dependency   c) Generalization   d) Ass

Q3: TRUE OR FALSE:

1. Agile Software Development is based on Iterative Development
2. Sequence diagrams may be used to define business process models.
3. In component testing, system is tested as a whole
4. There are no right or wrong software processes.
5. The main advantages of the waterfall model is the difficulty of accommodating change after the process is underway
6. Change avoidance, where the process is designed so that changes can be accommodated at relatively low cost.
7. One main principles of agile methods is process not People
8. Scaling up' is concerned with using agile methods for developing large software systems that cannot be developed by a small team
9. Message passing interaction, where one computer calls on a known service offered by another computer and waits for a response
10. thin-client model, where some or all of the application processing is carried out on the client