**Choose the correct answer from a, b, c, and d:**

1- **Which of these is incorrect?**
   - (a) **Software engineering belongs to Computer science.**
   - (b) **Software engineering is a part of more general form of System Engineering.**
   - (c) **Computer science belongs to Software engineering.**
   - (d) **Software engineering is concerned with the practicalities of developing and delivering useful software.**

2- Efficiency attribute of good software means that _____.
   - (a) Software should not make wasteful use of system resources such as memory and processor.
   - (b) Software should be written in such a way that it can evolve to meet the changing needs of customers.
   - (c) Software should not cause physical or economic damage in the event of system failure.

3- **Software should not make wasteful use of system resources such as memory and processor cycles. This good characteristic is called …**
   - (a) **Maintainability**
   - (b) **Dependability**
   - (c) **Efficiency**
   - (d) **Acceptability**

4- **Which of these is true?**
   - (a) **Generic products and customized products are types of software products.**
   - (b) **Generic products are produced by organization and sold to open market.**
   - (c) **Customized products are commissioned by particular customer.**
   - (d) **All of the above.**

5- What is the main disadvantage of the Waterfall model?
   - a) It's difficult to manage.
   - b) It's not suitable for large projects.
   - c) It doesn't accommodate changes well.

   - (d) It requires extensive documentation

6- **The phone billing systems and the salary payment systems are examples of … systems**
   - (a) **Data collection**
   - (b) **Embedded control**
   - (c) **Batch processing**
   - (d) **Modeling and simulation**

7- **The hardware devices that are controlled and managed by a software as the mobiles are examples of … systems**
   - (a) **Data collection**
   - (b) **Embedded control**
   - (c) **Batch processing**
   - (d) **Modeling and simulation**

8- **In which phase the system is changed in response to the customer needs?**
   - (a) **Specification**
   - (b) **Development**
   - (c) **Validation**
   - (d) **evolution**

9- Attributes of good software include_____.
   a. Development and testability    b. Acceptability.                    C. Heterogeneity

10- The incremental development model is_____.
   a. A suitable approach when the requirements are well defined.
   b. A good approach when a software product is required quickly.
   c. A revolutionary model that is not used for commercial products.

11- Software is an engineering discipline that is concerning with all aspects of software production.

(a) True.             b. False

**12- The hardware devices that are controlled and managed by a software as the mobiles are examples of … systems**
   **(a) Data collection**
   **(b) Embedded control**
   **(c) Batch processing**
   **(d) Modeling and simulation**

**13-** Which one of the following is not an application of embedded software product?
   a. keypad control of a security system
   b. pattern recognition game playing
   c. digital function of dashboard display in a car
   d. none of the mentioned

**14-** Which activity involves the translation of software design into source code?
   a) Requirements Engineering        b) Design     c) Implementation      d) Testing

**15- Software should not make wasteful use of system resources such as memory and processor cycles. This good characteristic is called …**
   **(a) Maintainability**
   **(b) Dependability**
   **(c) Efficiency**
   **(d) Acceptability**

**16-** What is the purpose of the testing process activity?
   a) To ensure that the software meets the specified requirements
   b) To write code
   c) To gather requirements from stakeholders
   d) To design the software architecture

**17-** The prototyping model of software development is
   a. A reasonable approach when requirements are well defined.
   b. The best approach to use for projects with large development teams.
   c. A risky model that rarely produces a meaningful product.
   d. A useful approach when a customer cannot define requirements clearly

**18- The second activity of the software process is …**
   **(a) Development**
   **(b) Evolution**
   **(c) Specification**
   **(d) Validation**

**19- Which of these software engineering activities are not a part of software processes?**
   **(a) Software dependence.**
   **(b) Software development.**
   **(c) Software validation.**
   **(d) Software specification.**

**20-** Software costs more to maintain than it does to develop.
   a. True         b.False

**21-** The incremental development model is_____.
   A. A suitable approach when the requirements are well defined.
   B. A good approach when a software product is required quickly.
   C.     A revolutionary model that is not used for commercial products

**Given the following key terms:**
a-      Security      b-Structure natural language      c- Architectural design
d- Non-functional requirement            e- Software engineering
    f- Component-based software engineering
g- Safety-critical systems    h- Requirements engineering
i- Software maintenance            j- Software process
**Match each of the above key terms with the definition that fits it:**
1- The system development process that focuses on integrating  reusable components into a
    system rather than developing from scratch      f- Component-based software engineering


1- It involves correcting errors which were not discovered in earlier stages of the software life cycle.
    f- Component-based software engineering
2- Systems whose failure may result in injury, loss of life or serious environmental damage
    i- Software maintenance

3- The set of activities and associated results that produce a software product
    g- Safety-critical systems
4- It is concerned with the practicalities of developing and delivering useful software.
    j- Software process
5- The identification and documentation of the sub-systems that make up the system.
    e- Software engineering

6- The constraints on the services or functions offered by the system
     c- Architectural design


7- A way of writing system requirements where the freedom of the requirements
     d- Non-functional requirement
8- writer is limited and all requirements are written in a standard way.
    b-Structure natural language

9- The  process of understanding and defining what services and constrains of the system's operation
    and development  .(h) Requirements engineering


10- The attribute that enables the system to protect itself from external attacks that may accidental or
    deliberate.
    a-  Security