Software Engineering MCQs [set-1]

1. Software Engineering:

A. is a set of rules about developing software products

B. has been around as a discipline since the early 50's

C. started as a response to the so-called 'software crisis' of the late 90's

D. is an engineering discipline concerned with all the aspects of software production

Answer: D

Explanation:- software crisis of the late 60's .

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2. While orientating yourselves to the company's work practices, you observe that they in fact do not conduct a few tests that they should in order to comply with the relevant safety standard. When you inquire about this from the project manager, he dismisses it saying that those tests are really unnecessary (and takes an unreasonably long time to conduct, as well as being superfluous) and that they have managed with the other tests for so long, without any problems."

A. you should immediately resign from the company and file a complaint with the relevant standard institution

B. you should do nothing and let the matter slide

C. although you are new to the company, and you hardly know anything about the internal processes and politics, you should insist on the company changing its work practices immediately; failing which you threaten to report the matter

D. since you are new to the company, and you are unfamiliar with the internal processes and politics, you should first find-out more about the issue and its background

Answer: D

Explanation:- d is the appropriate choice.

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3. With regard to Evolutionary development, identify the correct statement.

A. evolutionary development usually comes in two flavors; exploratory development, and throw-away prototyping

B. very large projects are natural candidates for an evolutionary development based approach

C. exploratory development is used in situations where most of the requirements are well understood in advance

D. one of the strong points of evolutionary development is that it facilitates easy project management, through the high volume of documentation it generates

Answer: A

Explanation:- evolutionary development usually comes in two flavors; exploratory development, and throw-away prototyping is the correct statement with respect to evolutionary development.

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4. The software life cycle can be said to consist of a series of phases. The classical model is referred to as the waterfall model. Which phase may be defined as “The concept is explored and refined, and the client’s requirements are elicited?”

A. requirements

B. specification

C. design

D. implementation

Answer: A

Explanation:- in the requirements phase the concept is explored and refined and the clients requirements are elicited.

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5. Which property of the rapid prototype is not important?

A. the speed with which it can be developed

B. the speed with which it can be modified

C. its ability to determine the client’s real needs

D. the insights that the design team can gain from it, even if they are of the ‘how not to do it’ variety

Answer: C

Explanation:- the sole use of the rapid prototype is to determine what the client’s real needs are as rapidly as possible. the rapid prototype is then effectively discarded so its internal structure is not relevant.

6. The degree of interaction between two modules is known as

A. cohesion

B. strength

C. inheritance

D. coupling

Answer: D

Explanation:- the degree of interaction between two modules is known as coupling.

7. The relationship between a derived class (or subclass) and base class is referred to as

A. association

B. inheritance

C. polymorphism

D. instantiation

Answer: B

Explanation:- a derived class inherits all the attributes of a base class.

8. Myers (1978) identifies seven levels of cohesion. Which level of cohesion may be defined as followed; “the output from one element in the component serves as input for some other element”?

A. communicational cohesion

B. functional cohesion

C. communicational cohesion

D. temporal cohesion

Answer: A

Explanation:- in communicational cohesion the output from one element in the component serves as input for some other element.

9. If a control switch is passed as an argument this is an example of _____ coupling.

A. content

B. common

C. control

D. stamp

Answer: C

Explanation:- two modules are control coupled if one passes an element of control to another.

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10. Which of the following is a type of abstraction?

A. data

B. procedural

C. iteration

D. all of the above

Answer: D

Explanation:- the three types of abstraction (data, procedural and iteration) are all instances of the more general concept of information hiding.

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11. In the classical chief programmer team approach, the team member responsible for maintaining the detailed design and coding is

A. the chief programmer

B. the programming secretary

C. a specialized function that exists outside ‘the team’

D. the individual coder (i.e. programmer)

Answer: D

Explanation:- in the classical chief programmer team approach, the team member responsible for maintaining the detailed design and coding is the individual coder (i.e. programmer).

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12. Internal costs include

A. developers salaries

B. managers and support personnel salaries

C. the cost of overheads such as utilities, rent and senior managers

D. materials (such as manuals) and services such as travel

Answer: A

Explanation:- internal costs comprise all the costs to the developers.

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13. Software Science bases its estimation of the size of a product on

A. files (fi), flows (fl) and processes (pr)

B. lines of code (kloc)

C. function points (fp)

D. operands and operators

Answer: D

Explanation:- software science bases its estimation of the size of a product on the number of operands and operators.

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14. In Intermediate COCOMO the mode that represents complex products is referred to as

A. embedded

B. semidetached

C. organic

D. multiplicative

Answer: A

Explanation:- organic, semidetached and imbedded.

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15. Work that continues throughout the project and does not relate to any specific phase of software development is termed a(n)

A. milestone

B. project function

C. activity

D. task

Answer: B

Explanation:- work that continues throughout the project and does not relate to any specific phase of software development is termed a project function.

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16. The best way to test the Software Project Management Plan (SPMP) is by

A. prototyping

B. inspection

C. simulation

D. compilation

Answer: B

Explanation:- the best way to test the software project management plan (spmp) is by a plan inspection by the sqa team. in order to further reduce risk the duration and cost estimates should further be independently computed by people other than the original project team.

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17. Brooks' view of the essence of software included

A. people, quality, process and productivity

B. performance, robustness, maintainability and reusability

C. complexity, conformity, changeability and invisibility

D. efficiency, reliability, usability and robustness

Answer: C

Explanation:- brooks' view of the essence of software included complexity, conformity, changeability &invisibility.

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18. What is the essence of software engineering?

A. requirements definition, design representation, knowledge capture and quality factors

B. maintaining configurations, organizing teams, channeling creativity and planning resource use

C. time/space tradeoffs, optimizing process, minimizing communication and problem decomposition

D. managing complexity, managing personnel resources, managing time and money and producing useful products

Answer: D

Explanation:- the essence of software engineering is managing complexity, personnel resources, time and money and producing useful products.

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19. Which of the following is a life-cycle concern?

A. testing

B. portability

C. programming

D. planning

Answer: D

Explanation:- planning is life-cycle concern.

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20. Which best captures the nature of the quality paradigm?

A. the nature of quality, a process perspective, defect elimination

B. process, product, people, problem

C. measurement, quality control, validation

D. feasibility, requirements, economics, customer’s needs

Answer: A

Explanation:- process perspective and defect elimination best captures the quality paradigm.

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21. What are the major activities of the spiral model of software engineering?

A. planning, risk analysis, engineering, customer evaluation

B. defining, prototyping, testing, delivery

C. requirements

D. quick design, build prototype, evaluate prototype, refine prototype

Answer: A

Explanation:- planning , risk analysis ,engineering and customer evaluation are the important four major activities of the spiral model.

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22. In choosing a development life-cycle model, one would consider the

A. development group expertise, problem characteristics, user expectations

B. languages, development schedule, competition

C. system context, user population, platforms

D. organizational structure, user tasks, performance criteria

Answer: A

Explanation:- choice a is the apt among all the answers for choosing a development life cycle model.

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23. What are the factors to be considered when planning a software development effort?

A. performance, problem, product, planning

B. people, problem, product, process

C. people, problem, productivity, performance

D. people, problem, product, portability

Answer: B

Explanation:- people, problem, product& process factors are considered when planning a software development effort.

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24. Views of quality software would not include

A. optimizing price and performance

B. minimizing the execution errors

C. conformance to specification

D. establishing valid requirements

Answer: B

Explanation:- minimizing the execution errors would not included in views of quality software.

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25. Software configuration activities would not include

A. identify change

B. control change

C. ensure improper implementation of change

D. report change to interested parties

Answer: C

Explanation:- software configuration activities would include proper implementation of change.

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