B. C. A. DEGREE EXAMINATION, APRIL 2015
FOURTH SEMESTER

REG. NO. _____

COURSE   :   MAJOR CORE
PAPER   :   SOFTWARE ENGINEERING
TIME   :   30 MINUTES   MAX. MARKS: 20

SECTION A
TO BE ANSWERED ON THE QUESTION PAPER ITSELF

Answer all the questions: **20 X 1=20 MARKS**

Fill in the Blanks:

1. Software has no mass, no volume, no color or no odor. This means that software is _____.

2. The ability of a program to perform a required function under stated conditions is termed as _____.

3. The ease with which a software can be transferred from one computer system or environment to another is called _____.

4. COCOMO means _____.

5. _____ is a Formal specification technique.

6. _____ design is concerned with refining the conceptual view of the system, identifying the internal processing functions, and decomposing high level functions into subfunctions, defining internal data streams and data stores.

7. _____ are directed graphs in which nodes specify the processing activities and the arcs specify the data items transmitted between the processing nodes.

8. We can use _____ tables to specify complex decision logic in a high level software specification.

9. "Are we building the right product" refers to the term _____.

10. _____ standards are specifications for a preferred coding style.

Choose the best answer:

11. Trivial project involves _____.
    a. 100 to 200 programmers
    b. One programmer working part time
    c. 1000s of programmers
    d. No programmers at all

12. MGO refers to _____.
    a. Management By Opinion
    b. Management By Occasion
    c. Management By Objectives
    d. Management By Occupation

13. System testing involves two types of testing. They are _____.
    a. Verification and validation
    b. Integration and acceptance
    c. Unit testing and regression testing
    d. Integration and validation

14. An ideal module constructed must have the _____.
    a. Highest coupling and lowest cohesion
    b. Highest cohesion and lowest coupling
    c. Highest coupling and cohesion
    d. Lowest coupling and cohesion

15. HIPO diagrams were developed for _____.
    a. Bottom up software development
    b. Top down software development
    c. Integration of software development
    d. Implementation of software development

16. The most widely used cost estimation technique is _____.
    a. Delphi cost estimation
    b. Expert judgement
    c. Work breakdown structure
    d. Algorithmic cost estimation

17. Pseudocodes are used in which phase of software development?
    a. Requirements phase
    b. Implementation phase
    c. Design phase
    d. Maintenance phase

18. This rule is a good coding style to be followed by programmers
    a. Usage of GOTOs in a disciplined way
    b. Nesting too deeply
    c. Using identifiers for multiple purposes
    d. Carefully examine routines having more than 5 formal parameters

19. What is debugging? Choose the right definition
    a. It is the process of finding and correcting the causes of unknown errors
    b. It is the process of finding the known errors
    c. It is the process of isolating and correcting the causes of known errors
    d. It is the process of correcting the faults

20. Configuration management takes place in which phase?
    a. Design phase
    b. Implementation phase
    c. Testing phase
    d. Maintenance phase

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SUBJECT CODE: 11CS/MC/SE44

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TIME   :   2½ HOURS   MAX. MARKS: 80

SECTION B
ANSWER All QUESTIONS: **5 X2=10 MARKS**

1. Define the term "programmer".
2. Give the format of the Acceptance test plan.
3. What is a recursive program?
4. What is a WBS?
5. How do you define "content coupling"?

SECTION C
ANSWER ANY EIGHT QUESTIONS: **8 X5=40 MARKS**

6. Discuss briefly the quality and productivity factors with respect to software engineering.
7. Explain the Delphi cost estimation technique.
8. What are the desirable properties of a software requirements specification process?
9. Explain "Abstraction" with respect to software design.
10. What are the Dos of a good coding style?
11. Explain any two types of TYPE CHECKING.
12. Write short notes Derived types and Enumeration types.
13. What are the functions of the software quality assurance group?
14. Explain Halstead's effort equation in brief.
15. Write short notes on INSPECTIONS.

SECTION D
ANSWER ANY THREE QUESTIONS: **3 X10=30 MARKS**

16. Elaborate any 3 software cost factors that influence the cost of a software product.
17. Explain in detail the Structured Design technique of software design.
18. Discuss in detail Documentation guidelines.
19. Explain in detail "Unit Testing and Debugging".
20. Discuss Maintenance tools and techniques in detail.

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