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Subject Name: Principles of Programming Languages

Unit- 1 MCQ's

1. Which language is first to have block structure, recursion?
a) FORTRAN
b) Algol 60
c) Smalltalk
d) LISP

2. Which language was used for business application in 1960s.

a) FORTRAN
b) COBOL
c) Smalltalk
d) LISP

3. What is the only language that a computer understands directly?
a) English, as spoken in Boston, Mass.
b) BASIC, the Beginners' All-purpose Symbolic Instruction Code
c) machine language, different for every type of CPU

4. What are the three main *types* of computer programming languages?
a) machine language, assembly language, high level language
b) imperative language, functional language, declarative language
c) COBOL, Fortran-77, C++

5. Which of the following is the functionality of 'Data Abstraction'?
a) Reduce Complexity
b) Binds together code and data.
c) Parallelism
d) None of the mentioned

6.
Which of the following mechanisms is/are provided by Object Oriented Language to implement Object.
Oriented Model?
a) Encapsulation
b) Inheritance
c) Polymorphism
d) All of the mentioned

7. Which of the theses is the functionality of 'Encapsulation'?

a) Bindstogethercodeanddata.
b) Usingsingleinterfaceforgeneralclassofactions.
c) ReduceComplexity
d) Allofthementioned

8.
Typeofprogramwhichcanberunondifferenttypesofcomputerbymakinglittlechangesintoiti
s called as
a) portableprogram
b) fixedprogram
c) standardprogram
d) compiledprogram

9. WhichofthefollowingisnottrueofFORTRAN?
a) itwasdevelopedforscientificandmathematicalapplications.
b) itisoneofthe oldesthigh-levellanguages
c) itisaproblemorientedlanguage
d) itrequiresextensiveinternaldocumentation
e) allofabove

10. Programminglanguage'BASIC'isusedforthe
a) beginners
b) commercialprograms
c) householduserinterface
d) AI applications

11. Which is a *great* language for teaching structured programming
a) FORTRAN
b) Pascal
c) Smalltalk
d) LISP

12. language good for symbolic computing

a) FORTRAN
b) Pascal
c) Cobol
d) LISP

13............... is the purest object-oriented language ever designed.

a) FORTRAN
b) Pascal
c) Cobol
d) smalltalk

14. .... language provides the iterative design methodology, and easy extensibility.

    a) FORTRAN
    b) Pascal
    c) Cobol
    d) LISP

15. What makes a good programming language.

    a) Clarity, Simplicity and Unity.
    b) Orthogonality
    c) Naturalness for application
    d) Support for abstraction
    e) All of the above

16.The von Neumann model used in ………

    a) Traditional sequential computers
    b) Traditional parallel computers
    c) None of the above

17. In ....a program can be thought of as a sequence of stateless function evaluations.

    a) functional programming
    b) object oriented programming
    c) Structured programming
    d) Rule based programming.

18. A programming paradigm can be understood as an ....of a computer system.

    a) Structure
    b) Abstraction
    c) Feature
    d) Object

19. Which of the following language is a declarative language?
    a) Algol
    b) Java
    c) C++
    d) Prolog

20. What are the benefits of procedural programming language.

    a) Simplicity

b) Code reusability.

c) strongly modular or structured

d) all of the above

21. Which of the following is the advantage of declarative languages over imperative languages?

a) Can use abstract data type.

b) Easy to verify the properties of the program.

c) Is more efficient.

d) Can be implemented by an interpreter or compiler.

e) Can be strong-typed.

22. One programming language can support multiple programming paradigms.

a) True

b) False

23. ....prevents a procedure from accessing the variables of other procedures (and vice-

versa),

a) encapsulation

b) abstraction

c) scoping

d) none of the above

24. ....is a way to compartmentalize and **reuse** code by creating collections of attributes

and behaviors (classes).

a) Inheritance

b) encapsulation

c) abstraction

d) scoping

25. ....was the first operational functional programming language.

a) FORTRAN

b) Pascal

c) Cobol

d) LISP

26. The feature by which the program that work on one platform can be modified on other platform is called -------------------

a) Reusability

b) Portability

c) Robustness

d) Locality

27. Semantic of a program means—

a) Format of a program

b) Meaning of a program

c) Simply content of a program

d) None of these

28. A program which convert high level programming language into machine code is called--------

a) Translator

b) Compiler

c) Assembler

d) None of these

29. Which was the first language for scientific applications?

a) ALGOL60

b) FORTRAN

c) LISP

d) COBOL

30. Which was the first high level language developed for business purpose?

a) ALGOL 60

b) LISP

c) COBOL

d) FORTRAN

31. Which was the first language for Artificial intelligence?

a) ALGOL60

b) FORTRAN

c) LISP

d) COBOL

32. From the point of view of the programmer what are the major advantages of using a high-level language rather than internal machine code or assembler language?

a) Program portability

b) Easy development

c) Efficiency

d) Portability

33. Which of the following is the functionality of 'Data Abstraction'?

a) Reduce Complexity

b) Binds together code and data

c) Parallelism

d) None of the mentioned

34. Which of the following mechanisms is/are provided by Object Oriented Language to implement Object Oriented Model?

a) Encapsulation

b) Inheritance

c) Polymorphism

d) All of the mentioned

35. Which of the these is the functionality of 'Encapsulation'?

a) **Binds together code and data**
b) Using single interface for general class of actions.
c) Reduce Complexity
d) All of the mentioned

36. What is printed by the print statements in the program P1 assuming call by reference parameter passing?

```
Program Pl()
{
        x=10;
        y=3;
        func1(y, x, x);
        print x;
        print y;
}
func1 (x, y, z)
{
        y = y + 4;
        z = x + y + z;
}
```

a) 10, 3
b) **31, 3**
c) 27, 7
d) None of the above

37. Consider the following program

```
Program P2
        var n: int:
        procedure W(var x: int)
        begin
                x=x+1;
                print x;
        end

        procedure D
        begin
                var n: int;
                n=3;
                W(n);
        end
begin //beginP2
n=10;
D;
End
```

If the language has dynamic scoping and parameters are passed by reference, what will be printed by the program?

a) 10

b) 11

c) 3

d) None of the above

38. Which of the following supports the concept of hierarchical classification?
    a. Polymorphism
    b. Encapsulation
    c. Abstraction
    d. Inheritance

39. In high level programming language Pascal, each program statement ends with the
    a. comma
    b. semicolon
    c. double quotation marks
    d. single quotation marks

40. Importance of Studying Programming Languages is/are:
    a. Increased capacity to express ideas
    b. Improved background for choosing appropriate languages
    c. Overall advancement of computing
    d. All of this

41. Language which support one particular paradigm is:
    a. Smalltalk
    b. C
    c. Java
    d. Perl

42. Function is basic building blocks in which language:
    a. Imperative Languages
    b. Applicative Languages
    c. Rule-based Languages
    d. Object-oriented programming

43. Which of the following is not an OOPS concept?
    a. Encapsulation
    b. Polymorphism
    c. Exception
    d. Abstraction

44. language have adopted which features that aid separate compilation:
    a. Extern
    b. Breaking point features
    c. Execution trace feature
    d. None of the above

45. In testing/ debugging assertion means:
    a. Control expression
    b. Conditional expression
    c. Both a & b
    d. None of the above