

Chapter -1 Important Questions

Subject: Paradigms and Computer Programming Fundamentals

Class/Semester: SE /III A and B

1. Differentiate between compiler and interpreter
2. Enlist the steps of compilation process
3. Discuss the process of compilation of a program with neat labelled diagram
4. Discuss the different phases of compilation
5. Define programming paradigm
6. Write short note on
 - a. Imperative programming paradigm
 - b. Procedural programming paradigm
 - c. Object oriented programming paradigm
 - d. Logic programming paradigm
7. Differentiate between imperative and declarative programming paradigm
8. Define names, scopes and binding
9. What are the different binding times with respect to compilation process?
10. Define local and global variables
11. Write short note on scope of local and global variables
12. Define static and dynamic binding. Illustrate with examples
13. Differentiate between static and dynamic scoping
14. Discuss static scoping with help of programming examples using C, C++ and Java
15. Discuss dynamic scoping with help of programming examples using C, C++ and Java
16. Define binding lifetime, object lifetime and dangling reference
17. Explain stack allocation with help of neat labelled diagram and example
18. Explain heap allocation with help of neat labelled diagram and example
19. Enlist the functions of Epilogue and Prologue
20. Define type checking. What is the significance of type checking
21. Differentiate between static and dynamic type checking

22. What is type equality? Support with examples
23. Explain in detail a typical calling sequence
24. Write short note on exception handling. Discuss how exception handling is done in C++ and Java
25. Define event and co-routine.
26. List the parameter passing implementation techniques for
 - a. C/C++
 - b. JAVA
 - c. Ruby
 - d. Algol
 - e. Fortran
27. Describe the important properties of object-oriented programming
28. Define
 - a. Programming Paradigm
 - b. Programming Technique
 - c. Programming style
 - d. Programming culture
29. Discuss referencing environment with examples and how referencing is done statically and dynamically
30. Write short note on subroutines and co-routines
31. Discuss event and event handler
32. Discuss exception and exception handler with example

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