G 1206   (Pages : 2)   Reg. No..................................

Name.....................................

B.TECH. DEGREE EXAMINATION, MAY 2016

Eighth Semester

Branch : Computer Science and Engineering

PRINCIPLES OF PROGRAMMING LANGUAGES (R)

(Old Scheme—Prior to 2010 Admissions)

[Supplementary/Mercy Chance]

Time : Three Hours   Maximum : 100 Marks

Part A

*Answer **all** questions.*
Each question carries 4 marks.

1. What is procedure-oriented programming ?

2. Define an interpreter. List the advantages in implementing a language with a pure interpreter.

3. What is type checking ? Explain with example.

4. List and discuss the two most important design issues that are specific to character string types.

5. Explain abstract data type with an example.

6. What is compaction ? Give example.

7. How accesses to non-local variables in static-scoped languages with nested subprograms are implemented ? Discuss.

8. Explain polymorphism with an example.

9. Give examples for exception and discuss the same.

10. What is software architecture and why is it important ?

(10 × 4 = 40 marks)
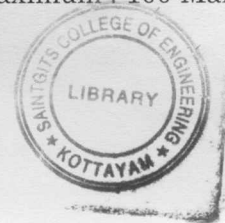
Part B

*Answer **all** questions.*
Each full question carries 12 marks.

11. "The design and evaluation of a particular programming language is highly dependent on the domain in which it is to be used". Discuss.

Or

12. Discuss the influence of computer architecture and programming design methodologies on language design.

Turn over

13. (a) Discuss the sources of ambiguity in operations with example. (8 marks)

    (b) When two data types are considered equivalent ? Discuss with example. (4 marks)

Or

14. What is a data structure ? Discuss with example type checking for data structures.

15. What is encapsulation ? Explain encapsulation by subprograms with example.

Or

16. What is statement-level sequence control in a programming language ? Discuss the forms of statement-level control with example.

17. (a) How subprograms are executed ? Explain with an example. (6 marks)

    (b) Explain call by value with an example. (6 marks)

Or

18. What is inheritance ? Explain with example any two types of inheritance in a programming language of your choice.

19. Discuss exception handling in Java with example.

Or

20. What is parallel programming ? Why parallel programming ? Discuss with example.

(5 × 12 = 60 marks)