



Printed Pages : 3

TCS504

(Following Paper ID and Roll No. to be filled in your Answer Book)

**PAPER ID : 1076**

Roll No.

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## B.Tech

### (SEM V) ODD SEMESTER THEORY EXAMINATION 2009-10 PRINCIPLES OF PROGRAMMING LANGUAGES

Time : 3 Hours]

[Total Marks : 100

**Note :** *Attempt all questions.*

1 Attempt any **four** parts of the following : **5×4=20**

- (i) What are part arrays and variant records ?
- (ii) Explain in brief free - and fixed field formats of syntax.
- (iii) Explain abstract data types with examples.
- (iv) Write brief note upon abstraction.
- (v) Explain variable size data structure with example.
- (vi) What is binding and binding time ?

2 Attempt any **four** parts of the following : **5×4=20**

- (i) List and explain major characteristics of a good programming language.
- (ii) Briefly discuss the development in programming methodology.



- (iii) Write note on virtual computers.
- (iv) Discuss various classes of binding time.
- (v) What do you understand by software simulated computers ?
- (vi) What are language translators ? Discuss the need of language translators.

3 Attempt any **two** parts of the following : **10×2=20**

- (i) Describe sequence control and its types. What are recursive subprograms ?
- (ii) What is parameter passing what are actual and formal parameters ? Explain call by value and call by reference.
- (iii) Describe implicit and explicit sequence control with example.

4 Attempt any **two** parts of the following : **10×2=20**

- (i) Describe heap storage management and its advantages.
- (ii) Describe various syntactic criteria.
- (iii) Differentiate interpreters and compilers.

5 Attempt any **two** parts of the following : **10×2=20**

- (i) Describe in detail the object oriented programming methodology and its advantages.

- (ii) What do you understand by operating and programming environment. List various attributes of a good operating and programming environment.
- (iii) Compare C and LISP on the basis of various attributes.

