

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS

III-B.TECH-I-Semester End Examinations (Supply) - December- 2025
PRINCIPLES OF PROGRAMMING LANGUAGES
(CSE)

[Time: 3 Hours]

[Max. Marks: 70]

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks.

PART-A

(20 Marks)

1. a)	Explain the features of denotational semantics.	[2M]
b)	Which is the general problem of describing syntax?	[2M]
c)	Differentiate between user defined and primitive data types with an example.	[2M]
d)	Explain about the Enumerated data type.	[2M]
e)	What is an overloaded subprogram?	[2M]
f)	Give the two kind of abstractions in programming languages.	[2M]
g)	Why does Java not have a destructors?	[2M]
h)	Define an Exception and What are the exception handling keywords in java	[2M]
i)	What are the basic elements of PROLOG?	[2M]
j)	What are the applications of functional programming languages?	[2M]

PART-B

(50 Marks)

2.a.	Explain the different categories of languages.	[5 M]
b.	What are the potential benefits of studying programming language concepts?	[5 M]
OR		
3.	Explain with examples how syntactic design choices affect readability.	[10M]
4.	What do you mean by binding? Give examples of some of the bindings and their binding times.	[10M]

OR

5.a	Explain about the mixed-mode assignments that are used in Ada and Java Languages.	[5 M]
b.	Explain about the type compatibility with an example.	[5 M]

6.a.	What is an overloaded subprogram explain with an example.	[5 M]
b.	What are the characteristics of co-routine feature? List the languages which allow co-routines.	[5 M]

OR

7.	Explain the different parameter passing methods with an example.	[10M]
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8.a.	What is semaphore? Explain the different types of semaphores.	[5 M]
b.	Explain the design issues of an exception handling system.	[5 M]

OR

9.a.	Explain how to handle the Exceptions in C++.	[5 M]
b.	Explain about the concurrency in Ada 95.	[5 M]

10. Explain the different types of data types used in Python with examples. [10M]

OR

11. Write a function that computes the sum of numbers using vectors in LISP? [10M]
