Code No.: CS513PE | R20 | H.T.No. | | | 8 | R | | | | | |

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
III–B.TECH–I–Semester End Examinations (Supply) - May- 2023
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)	What are the uses of an attribute grammar?	[2M]
b)	List different categories of languages.	[2M]
c)	What are the tuple types?	[2M]
d)	Explain type conversion techniques.	[2M]
e)	What are the characteristics of subprograms?	[2M]
f)	What are the two fundamental design considerations for parameter-passing methods?	[2M]
g)	Describe the functionality of 'finally' clause of JAVA exception handling mechanism.	[2M]
h)	What is the purpose of a C++ destructor?	[2M]
i)	List two Functional programming Languages.	[2M]
j)	What are the applications of logic programming languages?	[2M]

PART-B **(50 Marks)**

2.a)	Describe the steps involved in the language evaluation criteria.	[5 M]
b)	Explain the criteria of success for a good programming language.	[5 M]
	OR	
3.a)	Illustrate the important factors influencing the writability of a language.	[5M]
b)	List and Explain formal methods of describing syntax.	[5M]
4.	Explain in detail various design issues of character, string types.	[10M]
	OR	
5.	Define an array? Explain how to initialize an array? Categorize different types of arrays.	[10M]
6.a)	Give a detailed note on pass-by-name and pass-by-reference parameter passing methods.	[5 M]
b)	Explain about generic sub-programs with examples.	[5 M]
	OR	
7.a)	Describe the shallow-access method of implementing dynamic scoping.	[5 M]
b)	What is the need of an activation record in implementing a subprogram? Explain with an example.	[5 M]
8.a)	Write a brief note on Java threads.	[5 M]
b)	Describe event handling with example in C#.	[5 M]
	OR	
9.a)	What are the various methods of exception handling? Discuss.	[5 M]
b)	Explain about various oop concepts.	[5 M]
10.	Explain various storage and control statements available in Python.	[10M]
	OR	
11.	Write a LISP function Fib(n) that computes nth Fibonacci number.	[10M]

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