

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Scheme for Valuation/Answer Key

Scheme of evaluation (marks in brackets) and answers of problems/key

SEVENTH SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018

Course Code: CS403

Course Name: PROGRAMMING PARADIGMS

Max. Marks: 100

Duration: 3 Hours

PART A

Answer all questions, each carries 4 marks.

		Marks
1	Side effect(2)+Example(2)	(4)
2	Yes(1)+Explanation based on Static links(3) (All those who explain static links can be given full marks, marks can be given for other suitable methods as per explanation)	(4)
3	Structural Equivalence with example, Named Equivalence with example (2*2)	(4)
4	IN(1),OUT(1),IN-OUT(2)	(4)
5	Applicative order evaluation(2)+normal order evaluation(2) (double(*23)) as well as (double(+23))can be given marks)	(4)
6	Exception definition(2)+Example(2)	(4)
7	Definition of greedy and minimal matches(2)+pattern generation(2)	(4)
8	Constructor + destructor	(4)
9	Thread pool Definition(1)+Purpose(3) (Thread pool-Collection of threads, Explanation of threads can be given marks, purpose-it always provides a thread for execution)	(4)
10	Reason justifying general patterns	(4)

PART B

Answer any two full questions, each carries 9 marks.

11	a) Pgm based in recursion(2)+tail recursion(2)	(4)
	b) Evaluation based on short circuit(3)+normal evaluation(2)	(5)
12	a) Mark & Sweep(2)+Stop and Copy(2)+Generational Garbage(1)	(5)
	b) Memory layout of records	(4)
13	a) Output of code(2)+Reason(2) (Marks can be given for doing the answer in either deep binding or shallow binding)	(4)
	b) Memory layout(2)+Address calculation(3)	(5)

PART C

Answer any two full questions, each carries 9 marks.

- 14 a) Co-routine explanation(3)+Cactus stack(3) (6)
 b) Purpose of generics (3)
- 15 a) Explanation (4)
 b) Output(=10)(2)+Let construct(1.5)+Lambda construct(1.5) (5)
- 16 a) Lazy evaluation(2)+Example(1) (3)
 b) Assert+ retract(1.5*2) (3)
 c) 3 rules (3)

PART D

Answer any two full questions, each carries 12 marks.

- 17 a) Seven features(each six feature(batch and interactive use, economy of expression, dynamic typing, high level data type, lack of declaration, easy access to system facilities)-6 mark+ pattern matching-3 mark) (9)
 b) 3 visibility labels (private, protected, public) (3)
- 18 a) Comparison with C (6)
 b) Semaphore(2)+Operations(2)+Difference(2) (6)
- 19 a) Six principles(6*1.5) –(co-begin, launch at elaboration, parallel loops, fork/join, implicit receipt, early reply*1.5) (9)
 b) JIT(1)+Advantage(2) (3)