0301_IT_Sem-III_R19_PCPF_Shah & Anchor Kutchhi Engineering College

1) The Question Paper will have MCQs (for 20 marks) and Subjective/Descriptive Questions (for 60 marks).

2) MCQ correct options and subjective question answers to be written on A4 size papers. Scan all pages of answer papers of Q.1 to Q.4 and create single file in pdf format to upload in the link given.

1. Email *

2. Enter your Name *

3. Enter your Seat Number *

Q.1) 1 to 3

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Variables whose value will be same across multiple function calls throughout the program execution is _____ .
Option A:	static variable
Option B:	stack
Option C:	non static variable
Option D:	heap
2.	Size of an object is _____
Option A:	Sum of the size of all the variables declared inside the class
Option B:	Sum of the size of all the variables along with inherited variables in the class
Option C:	Size of the largest size of variable
Option D:	Size of smallest size of variable
3.	Prolog relates variables and atoms by the process of _____ and the variables that receive values as said to be _____
Option A:	unification and initialization
Option B:	initialization and assignment
Option C:	unification and instantiated
Option D:	Initialization and paging

Q.1) 4 to 7

4.	What are the types signatures of the Haskell functions: head, take, filter
Option A:	[a] -> a, [a] -> Int -> [a], [a] -> [b] -> (a -> b)
Option B:	[a] -> a, [a] -> Int -> [a], (a -> b) -> [a] -> [b]
Option C:	[a] -> a, Int -> [a] -> [a], (a -> b) -> [a] -> [b]
Option D:	[a] -> a, Int -> [a] -> [a] , (a -> Bool)]
5.	Which of the following is true about polymorphism in Haskell?
Option A:	Type variables in haskell are an instance of parametric polymorphism.
Option B:	Type variables in haskell are an instance of ad-hoc polymorphism.
Option C:	Type classes in haskell are an instance of parametric polymorphism.
Option D:	Type classes in haskell are an instance of non-parametric polymorphism.
6.	Which statement is false about scripting languages?
Option A:	Scripts can be used for batch processing
Option B:	Scripting languages support high level data types.
Option C:	Scripting languages are statically typed
Option D:	In script variables needn't be declared.
7.	In which of the following scenarios, a compiler is preferable to an interpreter?
Option A:	When Program development is easier
Option B:	To perform debugging faster.
Option C:	There are lesser resources to run a program
Option D:	We need to develop a standalone application that can run without installation.

Q.1) 8 to 10

8.	When the parent class has a parameterized constructor then it is _____ for the child class to have a parameterized constructor to pass arguments to the parent class.
Option A:	Compulsory
Option B:	Optional
Option C:	Error
Option D:	Based on compiler
9.	Which of the following is used in logic programming?
Option A:	classes
Option B:	resolution and unification
Option C:	monad
Option D:	iterative constructs
10.	Message passing system allows processes to
Option A:	communicate with one another without resorting to shared data
Option B:	communicate with one another by resorting to shared data
Option C:	share data
Option D:	name the recipient or sender of the message

Q.2 & Q.3

Q2	Solve any Four out of Six 5 marks each
A	Describe the different Types in Haskell.
B	With an example explain how constructors are different from other member functions
C	How scripting languages differ from other programming languages
D	Mention features of Functional Programming languages.
E	When and why do we use "is" instead of "=" in Prolog?
F	Explain lifecycle of a thread.

Q3	Solve any Two Questions out of Three 10 marks each
A	Write a Prolog code to find if a list is sorted or not.
B	Explain the Exception handling mechanism with example
C	Explain Type System and Type checking.

Q.4

Q4	Solve any Two Questions out of Three 10 marks each
A	Explain the different mechanisms in which storage is allocated to a program and data.
B	i) Explain the concept of higher order functions in Functional Programming. Name and specify input output characteristics of any 2 Haskell higher order functions. (4 marks) ii) Write your own Haskell implementation for any one of the functions you stated in the previous question. (03 marks) iii) Write a corresponding imperative algorithm to achieve the same input output characteristics. (03 marks) **Note:** you may assume and state a suitable data structure while writing imperative algorithm.
C	Discuss how to implement Polymorphism in C++ with example program.

4. Upload your answer papers *

    Files submitted:

5. Have you uploaded required pdf file of answers? *

    Mark only one oval.

    ◯ Yes

Google Forms