Programming Paradigm

Question No. 1

9(a)	**One** mark for each correct marking point **(Max 2)** • Imperative languages use variables • … which are changed using (assignment) statements • … they rely on a method of repetition / iteration. • The statements provide a sequence of commands for the computer to perform • … in the order written / given • … each line of code changes something in the program run.	**2**
9(b)	**One** mark for each correct marking point **(Max 2)** • Instructs a program on what needs to be done instead of how to do it • ... using facts and rules • … using queries to satisfy goals. • Can be logical or functional • Logical - states a program as a set of logical relations • Functional – constructed by applying functions to arguments / uses a mathematical style	**2**

9(c)	**One** mark for each correct programming paradigm **(Max 4)**	**4**

Program code example	Programming paradigm

`male(john).`
`female(ethel).`
`parent(john, ethel).`
	Declarative

`FOR Counter = 1 TO 20`
`  X = X * Counter`
`NEXT Counter`
	Procedural / imperative

`Start: LDD Counter`
`  INC ACC`
`  STO Counter`
	Low-level / assembly

`public class Vehicle`
`{`
`  private speed;`
`  public Vehicle()`
`  {`
`  speed = 0;`
`  }`
`}`
	Object oriented / (OOP)

Question No. 2

2	**One** mark for each **single** correct line from **Programming Paradigm** to **Description**	**4**