

DIRECTORATE OF GOVERNMENT EXAMINATIONS, CHENNAI – 6
HSE SECOND YEAR EXAMINATION, MARCH-2025
COMPUTER SCIENCE ANSWER KEY - ENGLISH MEDIUM

Maximum Marks: 70

Note:

1. Only answers written in Blue Or Black ink should be evaluated
2. Choose the most appropriate answer the given four alternatives and write the option code and the corresponding answer.

PART – I

Answer All the Questions

15×1=15

Q.No.	Option Code	Answer	Mark
1	(c)	Definition	1
2	(a)	Constructor	1
3	(b)	LEGB	1
4	(c)	Half-interval search	1
5	(b)	Ternary	1
6	(a)	for	1
7	(d)	return	1
8	(a)	positive or negative numbers	1
9	(a)	ecneicS retupmoC	1
10	(d)	.	1
11	(b)	Chen	1
12	(b)	SELECT	1
13	(a)	Modification	1
14	(b)	OS module	1
15	(b)	Distinct	1

Part – II

Answer **Any Six** questions **Question No.24** is compulsory.

6×2=12

Q.No	Answer	Marks
16	Any way of bundling two values together into one can be considered as a pair. Eg : Lists (or) Any Suitable Example.	1 1
17	To sort items in a certain order using the methods is called Sorting (or) Sorting is a process of arranging group of items in an ascending or descending order.	2
18	Output : 5 10 15	2
19	<ul style="list-style-type: none"> Slicing is a substring of a main string using by [] slicing operator. 	2
20	<ul style="list-style-type: none"> Destructor is a special method gets execution automatically when an object exits from the scope. 	2
21	<ul style="list-style-type: none"> Create a table – DDL - Data Definition Language (CREATE) Values can be added to the table - DML Data Manipulation Language (INSERT) 	1 1
22	<ul style="list-style-type: none"> To change a directory 'cd' command is used. Any Suitable Example 	2
23	<ul style="list-style-type: none"> You can install matplotlib using pip. 	2
24	OUTPUT False welcome	1 1

Part – III

Answer Any SIX questions Question No.33 is compulsory.

6×3=18

Answer		Marks				
Q.No						
25	<ul style="list-style-type: none">The variables used inside the function may cause side effects though the functions which are not passed with any arguments. In such cases the function is called impure function. When a function depends on variables or functions outside of its definition block, you can never be sure that the function will behave the same every time it's called.Example: random() function.	3				
26	Global Variable: <ul style="list-style-type: none">(i). A variable which is declared outside of all the functions in a program.(ii). Global Variable can be accessed inside or outside of all the functions in a program. (Give Suitable Example)	3				
27	Assignment Operator <ul style="list-style-type: none">=+=-=*=/=%=**=//=	3				
28	<table><tr><th>Ceil ()</th><th>Floor ()</th></tr><tr><td><ul style="list-style-type: none">Returns the smallest integer greater than or equal to x.</td><td><ul style="list-style-type: none">Returns the largest integer less than or equal to x.</td></tr></table>	Ceil ()	Floor ()	<ul style="list-style-type: none">Returns the smallest integer greater than or equal to x.	<ul style="list-style-type: none">Returns the largest integer less than or equal to x.	3
Ceil ()	Floor ()					
<ul style="list-style-type: none">Returns the smallest integer greater than or equal to x.	<ul style="list-style-type: none">Returns the largest integer less than or equal to x.					
29	<ul style="list-style-type: none">(i). List.remove(element).(ii). List.pop(index of an element) (or) List.pop()(iii). List.clear().	1 1 1				

30	<ul style="list-style-type: none"> Cross product is a way of combining two relations. The resulting relation contains, both relations being combined. <p>(Any Suitable Example)</p>	3
31	<ul style="list-style-type: none"> reader work with list/tuple. DictReader() work with dictionary 	3
32	<p>fetchone()</p> <ul style="list-style-type: none"> The fetchone() method returns the next row of a query result set None in case there is no row left. <p>fetchmany()</p> <ul style="list-style-type: none"> Displaying specified number of records is done by using fetchmany(). This method returns the number of rows of the result set. 	3
33	<p>OUTPUT : [1,4,9,16,25]</p>	3

Part – IV

Answer all of the following Questions

5×5=25

Q. No	Answer		Marks
34 a)	Pure Function	Impure Function	5
	<ul style="list-style-type: none">• The return value of the pure functions solely depends on its arguments passed.• If you call the pure functions with the same set of arguments, you will always get the same return values.• They do not have any side effects.• This function do not modify the arguments	<ul style="list-style-type: none">• The return value of the impure functions does not solely depend on its arguments passed.• If you call the impure functions with the same set of arguments, you might get the different return values• They do have any side effects• This function may modify the arguments	
	(Any Suitable Example)		
	(OR)		

(b)	Types of a Data Model <ol style="list-style-type: none"> 1. Hierarchical Model 2. Relational Model 3. Network Database Model 4. Entity Relationship Model 5. Object Model Explanation	2 3
35 (a)	Types of Operator <ol style="list-style-type: none"> 1. Arithmetic operators 2. Relational or Comparative operators 3. Logical operators 4. Assignment operators 5. Conditional operator Explanation (OR)	2 3
(b)	UNIQUE Constraint - No two rows have the same value in the specified columns. PRIMARY KEY Constraint - Primary key which helps to uniquely identify a record. DEFAULT Constraint - To assign a default value for the field. CHECK Constraint - To set a limit value placed for a field. Explanation	 5
36 (a)	while loop (Syntax) while <condition>: statements block 1 [else: statements block2] Explanation Any Suitable Example (OR)	2 2 1
(b)	Python File Modes <ul style="list-style-type: none"> • 'r' - Open a file for reading. (default) • 'w' - Open a file for writing. Creates a new file if it does not exist or truncates the file if it exists. • 'x' - Open a file for exclusive creation. If the file already exists, the operation fails. • 'a' - Open for appending at the end of the file without truncating it. Creates a new file if it does not exist. • 't' - Open in text mode. (default) • 'b' - Open in binary mode. • '+' - Open a file for updating 	 5

38	Output	
(a)	{1, 2, 3, 4, 5, 6, 7, 8}	1
	{4, 5}	1
	{1, 2, 3}	1
	{6, 7, 8}	1
	{1,2,3,6,7,8}	1
	(OR)	
(b)	Aggregate Function :	
	I. AVG() - Finds the average	1
	II. COUNT() - Function returns the number of rows in a table	1
	III. SUM() - Finds the sum	1
	IV. MAX() - The largest value of the selected column.	1
	V. MIN() - The smallest value of the selected column.	1