HIGHER SECONDARY FIRST YEAR

PUBLIC EXAMINATION – MAY 2022

COMPUTER SCIENCE KEY ANSWERS

PART-I

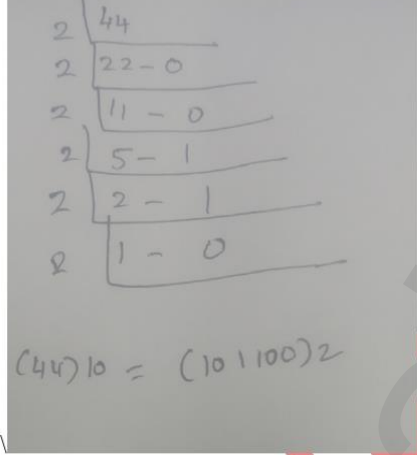**Answer All the Questions**   **15 x 1=15**

Q. NO	OPTION	ANSWER	Mark
1	a	Third	1
2	b	D	1
3	a	Cache Memory	1
4	b	MS-DOS	1
5	a	Edit –> Paste	1
6	a	S2	1
7	c	Bjarne Stroustrup	1
8	a	3	1
9	b	9	1
10	d	10	1
11	a	array	1
12	d	Reusability	1
13	c	Member functions	1
14	b	Computer ethics	1
15	a	Android	1

PART-II

Answer any six questions. Question no 24 is compulsory   **6x2=12**

Q. NO	ANSWER	Mark
16.	➢ UNIX ➢ Microsoft Windows ➢ Linux ➢ iOS ➢ Android	2
17.		2
18.	The icons which are available on desktop by default while installing Windows OS are called standard icons.	2
19.	An algorithm is a sequence of instructions to accomplish a task or solve a problem (or) An algorithm is a step by step sequence of statements intended to solve a problem.	2
20.	The declaration of a 2-D array is data-type array_name[row-size][col-size];	2
21.	The ability of the function to process the message or data in more than one form is called as function overloading	2
22.	• The derived class inherits all the properties of the base class. • It is a power packed class, as it can add additional attributes and methods and thus enhance its functionality	1 1
23.	❖ TSCII (Tamil Script Code for Information Interchange) is the first coding system to handle our Tamil language ❖ This encoding scheme was registered in IANA (Internet Assigned Numbers Authority) a unit of ICANN.	2
24.	➢ To indicate the function does not return a value	2

	➢ To declare a generic pointer.	

PART-III

Answer any six questions. Question no 33 is compulsory   **6x3=18**

25.	The microprocessors can be classified as follows: • 8-bit microprocessor • 16-bit microprocessor • 32-bit microprocessor • 64-bit microprocessor	3
26.	➢ Sixth Generation, computers could be defined as the era of intelligent computers, based on Artificial Neural Networks. ➢ One of the most dramatic changes in the sixth generation will be the explosive growth of Wide Area Networking. ➢ Natural Language Processing (NLP) is a component of Artificial Intelligence (AI). ➢ It provides the ability to develop the computer program to understand human language.	3
27.	• Case analysis statement generalizes it to multiple cases. • Case analysis splits the problem into an exhaustive set of disjoint cases. **Example:** 1. case C1 2. S1 3. case C2 4. S2 5. case C3 6. S3 7. else 8. S4	2 1
28.	Yes C++ is a case sensitive C++ is case sensitive as it treats upper and lower-case characters differently	1 2

29.	**Null statement :**
	 ➢ The "**null** or **empty statement**" is a statement containing only a semicolon.
	 ➢ It takes the flowing form:
	    ; // it is a null statement
	 ➢ Null statements are commonly used as placeholders in iteration statements or as statements on which to place
		1 ½

	labels at the end of compound statements or functions
	Compound statement:
	➢ C++ allows a group of statements enclosed by pair of braces {}. This group of statements is called as a compound statement or a block.
	
	The general format of compound statement is:
	{
	statement1;
	statement2;
	statement3;
	}
		1 ½

30.	The switch statement is a multi-way branch statement.
	It provides an easy way to dispatch execution to different parts of code based on the value of the expression.
	The switch statement replaces multiple if-else sequence.
	 Syntax:
	
	switch(expression)
	{
	case constant 1:
	statement(s);
	break;
	case constant 2:
	statement(s);
	break;
	.
	.
	.
	.
	default:
	statement(s);
	}
		1 ½
		
		1 ½

31.	• We can also define new functions to perform a specific task. • These are called as **user-defined functions**. • User-defined functions are created by the user. • A function can optionally define input parameters that enable callers to pass arguments into the function. • A function can also optionally return a value as output	3
32.	➢ An Ethical issue is a problem or issue that requires a person or organization to choose between alternatives that must be evaluated as right (ethical) or wrong (unethical). ➢ These issues must be addressed and resolved to have a	1 ½

	positive influence in society ➢ Some of the common ethical issues are listed below: ▪ Cyber crime ▪ Software Piracy ▪ Unauthorized Access ▪ Hacking ▪ Use of computers to commit fraud ▪ Sabotage in the form of viruses ▪ Making false claims using computers Write any 3 ethical issues	1 ½
| 33. | ```
#include <iostream>
using namespace std;
int main ()
{
int i=1,sum=0;
while(i<=10)
{
sum=sum+i;
i++;
}
cout<<"The sum of 1 to 10 is "<<sum;
return 0;
}
```<br>**Output**<br>The sum of 1 to 10 is 55 | 3 |

PART-IV

Answer all questions.   5x5=25

34.a)	**Data:** Data is defined as an un- processed collection of raw facts, suitable for communication, interpretation or processing. Example: 134, 16 'Kavitha', 'C' (OR) **Any Suitable Example** **Information:** Information is a collection of facts from		3

	which conclusions may be drawn. Example: Kavitha is 16 years old.(OR) **Any Suitable Example** **Diagram** **Computer definition**		1 1
b)	➢ Read Only Memory refers to special memory in a computer with pre-recorded data at manufacturing time which cannot be modified ➢ Once the data has been written onto a ROM chip, it cannot be modified or removed and can only be read. ➢ ROM is called as a non-volatile memory PROM,EPROM,EEPROM Explanation		1½ 3
35.a	Not in reduced syllabus		
b)	square_root (x) -- inputs: x is a real number , x ≥ 0 -- outputs: y is a real number such that y2=x		5

36.a)	Explain Error details
	    Syntax Error
	    Semantic Error
	    Run time error
			5

b)	The switch statement is a multi-way branch statement.
	It provides an easy way to dispatch execution to different parts of code based on the value of the expression.
	The switch statement replaces multiple if-else sequence.
	 Syntax:
	
	switch(expression)
	{
	case constant 1:
	statement(s);
	break;
	case constant 2:
	statement(s);
			3

	break;
	.
	.
	.
	.
	default:
	statement(s);
	}
	
	Any Suitable Example
			2

37.a)	Explain Part of loop ➢ Every loop has four elements that are used for different purposes. ➢ These elements are ● Initialization expression ● Test expression ● Update expression ● The body of the loop		5
b)	Enter Number 1= 78 Enter Number 2= 51 Enter Number 3= 32 Enter Number 4= 66 Enter Number 5= 41 Enter Number 6= 68 Enter Number 7= 27 Enter Number 8= 65 Enter Number 9= 28 Enter Number 10= 94 There are 6 Even Numbers There are 4 Odd Numbers (or) Write any input and output		5
38 b)	Advantages of object oriented programming **Re-usability:** "Write once and use it multiple times" you can achieve this by using class. **Redundancy:**		5

Inheritance is the good feature for data redundancy. If you need a same functionality in multiple class you can write a common class for the same functionality and inherit that class to sub class.

Easy Maintenance:

It is easy to maintain and modify existing code as new objects can be created with small differences to existing ones.

Security:

Using data hiding and abstraction only necessary data will be provided thus maintains the security of data

38) a)

Line No	Error Coding	Corrected Coding
1	%include(iostream.h)	#include<iostream>
3	Class A	class A
5	public;	public:
6	int a1,a2:a3;	int a1,a2,a3;
7	Void getdata[ ]	void getdata( )
10	a2=13;a3=13;	a2=14;a3=13
12	}	};
13	class B::public A( )	class B:public A
15	PUBLIC	public:
16	voidfunc( )	void func( )
18	int b1:b2:b3	int b1,b2,b3
19	A::getdata[ ];	A::getdata( )
23	cout<<b1<<'\ t'<<b2<<'t\'<<b3	cout<<b1<<'\ t'<<b2<<'\t'<<b3
		};
29	der1:func( );	der.func( );

Created by,
E.RAJKUMAR M.C.A.,B.Ed,
PG COMPUTER SCIENCE
Tenkasi district
Mobile No:9488301812