HOLIDAYS PACKAGE

Module TITLE: Backend Application Development (BAD)

RTQF LEVEL: Five

TRADE: SOD

INSTRUCTION:

☐ **Answer all questions**

☐ **please provide Clear answers**

☐ **Make internet research for better answers**

☐ **Make sure you write full notes(all answers) in your notebooks**

01. What is python?

02. Define the following terms applied in algorithm: **a)** Debugging
b) Program linking

03. State any five (5) rules of naming a variable

04. Define framework in python and give two (2) examples.

05. List all steps followed to **push** and **pop** in stack.

06. Find the output of the following program:
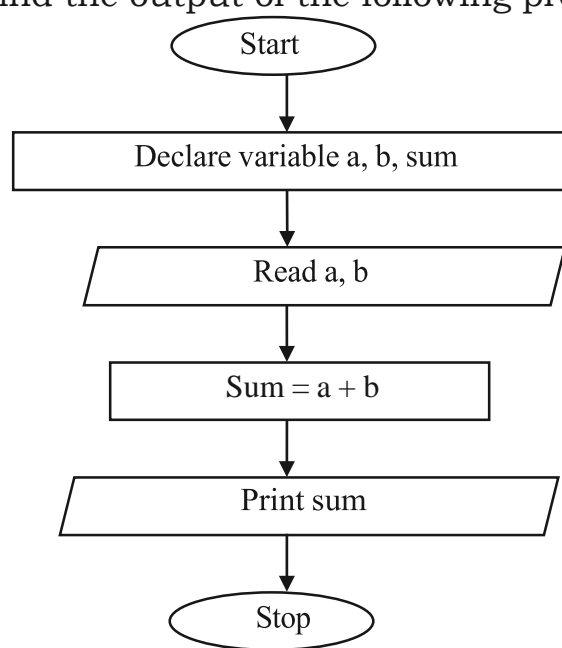
If the value of a=20, b=3, what will be the value of
the sum?

07. Explain IDE in python and give two (2) examples.

08. Explain four (4) rules for switch statement in C language.

09. Describe any three (3) main types of errors available in a programming language.

10. Write an algorithm to read **n** number of values in an array and display them in reverse order.

11. Write a C program that will display odd numbers from 50 to 10.

12. Develop a C program to display the days of the week by using switch case statement**.**

13. Use sum () function to develop a simple python program that will add two numbers.

14. Consider the following code snippet.

int i = 10;

int n = i++%5;

a) What are the values of i and n after the code is executed?

b) What are the final values of i and n if instead of using the postfix increment operator (i++), you use the prefix version   (++i))?

15. Compare for loop with while loop by using an example for each.

16. Refer to table below and write an algorithm to print the grade obtained by a student.

Marks	Grades
Above 75	O
60-75	A
50-60	B
40-50	C
Less than 40	D

17. Analyze the expression provided in the first column and complete the second column of the table below.

Assume that a=5, b=10, c=15 and d=0.

EXPRESSION	TRUE OR FALSE
(a! = 7)	
((c>=15) || (d>a))	
((d/c < (a*b))	
(! ((a+d) >= (c-b+1)))	
((c>b)&&(b<a))	

18. **a)** Analyze the following program and provide its output.

```c
#include<stdio.h>
 int main()
{
 int i;
 int arr[5] = {1,5,9};
 for (i = 0; i < 5; i++){
 printf("%d ", arr[i]);
}
 return 0;
}
```

b) Explain realloc and give its syntax.

19. With the help of examples, explain function overloading in C++

20. Write a Pseudocode program of binary search algorithms.

21. **a)** Develop a JavaScript program that will calculate volume of
a box of length = 30, width = 50 and height=5
(Hint: volume = length * width * height)
b) Create a JavaScript object that will store and output product and price
of a commodity.