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**WESTERFIELD COLLEGE**

**INTERNATIONAL FOUNDATION PROGRAMME**

**2023/2024 Academic Session**

**Mid Semester Exam**

**Candidate Name:**

**Candidate Number:**

**Introduction to Computer Programming ICP 001**

**Oct., 2023**

**1hr: 30min**

**INSTRUCTIONS**

* **Answer all question**
* **Use a black or blue pen. You may use an HB pencil for any diagrams or graphs.**
* **Write your name and candidate number in the boxes at the top of the page.**
* **Write your answer to each question in the answer booklet.**
* **Do not use an erasable pen or correction fluid.**
* **Do not write on the margin**
* **You may use calculator.**
* **You should show all your workings and appropriate units.**

**Part A (MCQ)**

1: Translator which is used to convert codes of assembly language into machine language is termed as

A) assembler

B) attempter

C) compiler

D) debugger

2: Diagram which shows relationship between classes is termed as

A) Class diagram

B) sequential diagram

C) use case diagram

D) communication diagram

3: Higher-order functions are not built into the

A) structural language

B) object oriented programming

C) JAVA

D) C++

4: Animations and interactivity with the user on web pages can be done by

A) PHP

B) Java script

C) Visual Basic

D) Visual C#

5: Diagram which shows how objects communicate with each other regarding a sequence of messages is called

A) object diagram

B) sequential diagram

C) use case diagram

D) communication diagram

6: select one of the true statement for the compiler?

a. the input of the compiler is source program

b.it translates the source code into object code as a whole

c. the output of the compiler is object code

d.all of above

7: the pseudocode is…

a. algorithm

b. flowchart

c. object code

d.coding

8: the language processor translates the program into object code as a whole…

a.linker

b.debugger

c.compiler

d.interpreter

9: finding and solving errors in the source code is…

a. desk checking

b. debugging

c. decoding

d. testing

10. translates the source code into machine language…

a. operating system

b. programming language

c. language processor

d. all of these

Part B (theory)

1) What is programming?

2) What is debugging?

3) Explain when the following errors occurs execution of a program?

* Syntax Errors
* Runtime Errors
* Logical errors

 4) What is a flowchart?

5) What do you understand by the term “Maintain and update the Program”?

6) What are variables?

#### 7) When logging into a website, you first enter your username and password, then the program checks to see whether the information you entered matches the information in your account, then the program either gives you an error message or logs you in. Which of the following gives the programming elements used in the correct order? Write your answers in order

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* Input, conditional, output
* Input, arithmetic, output
* Input, arithmetic, looping
* Input, conditional, looping

#### 8) \_\_\_\_\_\_\_\_\_\_\_\_\_\_ were originally developed so programmers could map out the steps their programs needed to take to accomplish the programmed task.

* Terminator
* Document
* Connector
* Flowcharts

9)  What will be the output of the following JavaScript code snippet?

int a=1;

**if**(a!=**null**) *// JavaScript not equal to Operators*

**return** 1;

**else**

**return** 0;

a) 0  
b) 1  
c) compiler error  
d) runtime error

10) What will be the output of the following JavaScript code?

*// JavaScript Comparison Operators*

**function** compare()

{

int num=2;

char b=2;

**if**(a==b)

**return** **true**;

**else**

**return** **false**;

}

a) false  
b) true  
c) compilation error  
d) runtime error

**PART C**

**(PRACTICAL USING JAVASCRIPT/HTML)**

### Jim currently runs a car rental dealership and wishes to write a program that allows the user to enter the temperature of the location they plan to visit and then recommend a car based on the data.

### Below is a summary of the program structure Jim is looking for.

### Temp greater than 80 a Convertible should be selected.

### Temp  greater than 60 and less than 80 an SUV should be selected

### Temp less than 60 a truck should be selected.

### Jim has no trouble writing the code if the temperate is greater than 80 but gets stuck when he arrives at the second line of code which reads Temp greater than 60 and less than 80 an SUV should be selected.

### What type of operator is Jim needing to use within his code?\_\_\_\_\_\_\_\_\_

### Write a JavaScript/html program for this question and send your code to this whatapp line 07066233903 or [jehovah4god@gmail.com](mailto:jehovah4god@gmail.com)