

THE JOINT EXAMINATIONS FOR CATHOLIC SCHOOLS (JECAS)
FORM SIX PRE – NATIONAL EXAMINATION - 2024
COMPUTER SCIENCE 2

136/2

Time: 3:00 Hours

Date: Tuesday, 19th March 2024 p.m.

Instructions

1. This paper consists of **three (3)** questions; you are required to answer **two (2)** questions, including question number **one (1)**.
2. Your work should be neat and clear.
3. Write your names and combination on every page of your answer sheet(s).
4. **SAVE** your work on desktop in a folder named by your examination number.
5. Submit printed codes and screenshots together with the softcopy of your work.
6. Save your work using the 1997-2003 version of the MS office software you are using.
7. Check whether printed work are similar to the softcopy saved in the folder.
8. Cellular phones and any unauthorized materials are not allowed in the examination room.
9. Type your examination number on every page of your soft copy work.

1. a) Write a C++ program to convert a given number into hours and minutes. Separate the number of hours and minutes with a colon.

For example, if a given number is 67 the output should be 1:7

1 hour = 60 min, therefor $67 - 60 = 7$ that is 1 hour and 7 minutes

- b) Write a program in C++ to print Floyd's Triangle.

The Floyd's triangle is as below:

```
1
01
101
0101
10101
```

2. a) Write HTML code to display the following tables and write its JAVASCRIPT code to calculate the total, average, comment and grade as shown in report card after user clicks Get Result button.

Student Input Section:

Name: Class:

Subject Marks	
Web Programming	<input type="text" value="90"/>
Computer Graphics	<input type="text" value="90"/>
System Programming	<input type="text" value="90"/>

Report Card

Name	Anna John
Class	form five
Total	270
Average	90
Comment	Distinction
Grade	A+

b) (i) Use basic HTML codes to create the following form:

Enter your Details

Name:

Email:

Password:

Gender: ☐ **Male** ☐ **Female**

(ii) Use JavaScript codes to validate form inputs when the Submit button is clicked.

3(a). The Area of a rectangle is the rectangle's length multiplied by its width. write program that asks for length and width of two rectangles. The program should tell the user which rectangle has the greater area or if the area are the same.

Create interface as shown below

Form1

RECTANGLE ONE

RECTANGLE TWO

CALCULATE AREA

DISCRIPTION

Rectangle one should be green in color, Rectangle two should be purple in color and a button should be blue in color.

Labels should be yellow in color and the labels captions should be red in color

Use input box to input all data required

Use message box to output your data

3(b). Create an interface as shown below, all controls in each frame should be in control arrays

The screenshot shows a Windows-style application window titled "Pizza Order". It contains several control groups: a "Size" group with radio buttons for "Small", "Medium", and "Large"; a "Crust Type" group with radio buttons for "Thin Crust" and "Thick Crust"; a "Toppings" group with checkboxes for "Extra Cheese", "Onions", "Mushrooms", "Green Peppers", "Black Olives", and "Tomatoes"; and a delivery method group with radio buttons for "Eat In" and "Take Out". At the bottom are two buttons: "Build Pizza" and "Exit". All radio buttons are set to "Small", "Thin Crust", "Eat In", and "Medium" (in the Toppings group, "Extra Cheese" is selected).

write codes so as if user clicks Build Pizza button it should display a message box to show the selections of the user, see example below

This screenshot shows the same "Pizza Order" window after the "Build Pizza" button was clicked. The selections are: Size: Medium, Crust Type: Thick Crust, Toppings: Extra Cheese, Onions, and Tomatoes, and Delivery: Take Out. A message box titled "Your Pizza Ordered is" is displayed in the foreground, listing the order details: "Take Out", "Medium pizza", "Thick Crust", "Extra Cheese", "Onions", and "Tomatoes". The message box has an "OK" button at the bottom.