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POST GRADUATE DIPLOMA IN LIBRARY AUTOMATION AND NETWORKING (PGDLAN)

Term-End Practical Examination

June, 2018

MLIL-007 : PROGRAMMING

Time Allowed : 2 hours

Maximum Marks : 50
(Practical Work : 40
Viva Voce : 10)
(Weightage : 40%)

General Instructions :

(i) *This question paper comprises three parts. Attempt any one part. Answer all the questions from the attempted part.*

(ii) *Show the output to your examiner.*

(iii) *Save your output in your system which will be checked by the examiner.*

(iv) *Printout of the answers wherever required should be taken in a sheet duly signed by RD with his/her stamp. Write your Roll No., Study Centre and Date of examination on these sheets.*

(v) *Candidates are not permitted to use any manual/ handbook in carrying out the practical.*

PART - A
(C++)

1. Create a class "time" that has separate **int** data   20
    member for hour, minutes and seconds. One
    constructor should initialize this data to 0 (zero)
    and another should initialize it on fixed values.
    Write a member function to display the time in
    the format **11 : 40 : 30**. The final member function
    should add two 'objects of type **time** passed as
    arguments.

2. Write a program to find the area of a square, a   20
    rectangle and a ◺ triangle using the concept of
    polymorphism in C++.

Note :	
Area of square	: side × side
Area of rectangle	: length × breadth
Area of ◺ triangle	: $\dfrac{height \times Base}{2}$
or (Right angle triangle)	

PART - B
(Java)

1. Write a Java program to create a **room** class, the   20
    data members of this class is roomnumber,
    roomtype, roomarea and AC machine. Also,
    create member functions setdata and displaydata.
    Input the data and display the data.
    Note : Make suitable assumptions, if any.

2. Write a program in Java to find out the smallest   20
    number among the 3 - numbers given as input.

PART - C
(Visual Basic)

1. Design and write a program in VB, which reverse   **20**
    the text string provided in the Input text box.
    Design the GUI as given below :

    ```
    ┌────────────────────────────────────────┐
    │   ┌──────────────────────────────┐      │
    │   │        Input Text Box        │      │
    │   └──────────────────────────────┘      │
    │   ┌──────────────────────────────┐      │
    │   │        O/P Text Box          │      │
    │   └──────────────────────────────┘      │
    ├────────────────────────────────────────┤
    │   ┌─────────────┐    ┌─────────────┐    │
    │   │   Reverse   │    │   Cancel    │    │
    │   └─────────────┘    └─────────────┘    │
    ├────────────────────────────────────────┤
    │          ┌─────────────┐                │
    │          │    Exit     │                │
    │          └─────────────┘                │
    └────────────────────────────────────────┘
    ```

2. Create a VB application with two options   **20**
    (C & F). If the choice is C, it asks for the
    Fahrenheit (number) from the user and display
    the equivalent temperature in Celsius. If choice
    is F, it asks for the Celsius degrees (number) and
    display equivalent Fahrenheit. Design appropriate
    GUI.

    Note : Formula for Celsius and Fahrenheit

    conversion is $\boxed{\text{Celsius} = \dfrac{5}{9} \times (\text{Fahrenheit} - 32)}$.