LAB TASKS

Question # 01:

Write a C program to find maximum between three numbers.

Question # 02:

Write a C program to check whether a number is negative, positive or zero.

Question # 03:

Write a C program to check whether a number is divisible by 5 and 11 or not.

Question # 04:

Write a C program to check whether a number is even or odd.

Question # 05:

Write a C program to check whether a year is leap year or not.

1. Leap year is the year that can be evenly divided by 4;
2. If the year can be evenly divided by 100, it is NOT a leap year, unless;
3. The year is also evenly divisible by 400. Then it is a leap year.

Question # 06:

Write a C program to read temperature in centigrade and display a suitable message according to temperature state below:
Temp < 0 then Freezing weather
Temp 0-10 then Very Cold weather
Temp 10-20 then Cold weather
Temp 20-30 then Normal in Temp
Temp 30-40 then Its Hot
Temp >=40 then Its Very Hot
Test Data :
42
Expected Output :
Its very hot.

Question # 07:

Write a c language program for the computation of various geometrical shapes area. Use switch case for this purpose. If user enters the following choice

- Choice = 1 then compute area of circle.
- Choice = 2 then compute area of triangle.
- Choice = 3 then compute area of rectangle.

  Sample Output:

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Input 1 for area of circle
Input 2 for area of rectangle
Input 3 for area of triangle
Input your choice: 1
Input radius of the circle: 5
The area is: 78.500000
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Question # 08:
Write a C program to input marks of five subjects English, Chemistry, Urdu, Mathematics and Computer, calculate percentage and grade according to given conditions:
If percentage >= 90% : Grade A
If percentage >= 80% : Grade B
If percentage >= 70% : Grade C
If percentage >= 60% : Grade D
If percentage >= 40% : Grade E
If percentage < 40% : Grade F

Question # 09:
Bonanza introduces up to 70% off on summer collection in their outlets. If the purchased amount of a customer is greater than 6000 rupees, less than and equal to 6000 rupees and equal to 3000 rupees then he/she can avail 70% discount, 50% discount and 30% discount respectively. Write a C code to the solution of the above scenario.

Question # 10:
Guess me if you can!

A simple game is assigned to programming students to build. The game is to guess the number. First you will enter the number which will be vanished in terminal after few seconds then the player has to guess that vanished number. Following are the conditions which should be fulfilled.

- If the guess is in –ve range prompt the error message and ask again (ONE MORE ATTEMPT)
- if the guess is less than the number than tell the player "TOO LOW"
- if the guess is GREATER than the number than tell the player "GREATER"
- if the guess is near than the number than tell the player "IT NEAR""
- If the guess is EQUAL to the number than tell the player "YOU CHAMPION!"

Question # 11:
An Organization on annual basis assess its employee basis on the performance they show. Each employee is assigned a rating which presents his/her performance remarks. The rating starts with 0 and ends with 0.5 maximum in between the points are 0.2, 0.3. The higher the value the good performance it presents. With 0 performance employees are suspended, with 0.2 rating the employees are warned to improve the performance. And with good rating 6000 rupees are raised by multiplying by their awarded grading.
- 0 NO PERFORMANCE
- 0.2 POOR PERFORMANCE
- 0.3 AVERAGE PERFORMANCE
- 0.5 OUT STANDING PERFORMANCE

Write the program in c doing the above work of organization. And check each condition.

Question # 12:

Write a C program to input electricity unit charges and calculate total electricity bill according to the given condition:
For first 50 units Rs. 0.50/unit
For next 100 units Rs. 0.75/unit
For next 100 units Rs. 1.20/unit
For unit above 250 Rs. 1.50/unit
An additional surcharge of 20% is added to the bill

Question # 14:

Any character is entered through the keyboard, write a program to determine whether the character entered is a capital letter, a small case letter, a digit or a special symbol. The following shows the range of ASCII values for various characters.
 0-9 (48-57),
A-Z (65-90),
A-z (97-122)

Question # 15:

Build a Program for Medical Entrance test. For clearing the test the candidate must have 80% in FSC. If candidate has done O/A Levels then the equivalence marks are calculated O/A levels grading scheme is:
 A*=90
A=85
B=75
C=65
D=55
To calculate for O level equivalence you simply add up the marks in your subjects and divide it by 800 to get the final percentage. Your final marks are calculated out of 900
Like this: (Your total marks/800)*900.

For A levels to calculate your overall equivalence out of 1100 marks in FSC you again use the same raw marks for each grade as mentioned above. In A level you divide the total of your 3 subjects by 300

. Example: You got A*, A, B. Total= 90+85+75=250/300.
The 3 subject's marks are added to the 8 of the Levels to give you an equivalence of FSc marks out of 1100.
Grading Scheme in Pakistan

Grades	Percentage of Marks	Marks
A+	80 % or above marks	880 or above marks
A	70% to 79.99% marks	770 to 879
B	60% to 69.99% marks	660 to 769
C	50% to 59.99% marks	550 to 659
D	40% to 49.99% marks	440 to 549
E	33% to 39.99% marks	439 or below

Convert the equivalence. Check whether the candidate is eligible for to sit on test. If candidate is eligible and scores MCAT >=85% admission is granted. If MCAT score is greater than 75 and less than 85% grant admission Dental Medical College.