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Btech CS

Section-AY-1

C programming Assignment.

Q1.Write a C program for calculating the price of a product after adding the sales tax to its original price. Where rate of tax and price is inputted by user.

: #include<stdio.h>

intmain(){

//Declarevariables

floatoriginalPrice,taxRate,totalPrice;

//Inputtheoriginalpriceandtaxrate printf("Enter the original price of the product: ");scanf("%f", &originalPrice);

Q2.WriteaCprogramtocalculatetheweeklywages ofanemployee.Thepaydependsonwagesperhour and number of hours worked. Moreover, if the employeehasworkedformorethan30hours,then he or she gets twice the wages per hour, for every extra hour that he or she has worked.

:#include<stdio.h>

```
intmain(){
   //Declarevariables
   floatwagesPerHour,hoursWorked,weeklyWages;

   // Input the wages per hour and hours
   workedprintf("Enterthewagesperhour:");
   scanf("%f", &wagesPerHour);

   printf("Enterthenumberofhoursworked:");
   scanf("%f", &hoursWorked);

   //Calculateweeklywages if
   (hoursWorked <= 30) {
      weeklyWages=wagesPerHour*hoursWorked;
   }else{
      weeklyWages = (wagesPerHour * 30) +
(wagesPerHour * 2 * (hoursWorked - 30));
   }

   //Displaytheweeklywages
   printf("Theweeklywagesoftheemployeeis:
%.2f\n",weeklyWages);

   return0;
```

}

Q3.Mr. X goes to market for buying some fruits andvegetables.HeishavingacurrencyofRs500with him for marketing. From a shop, he purchases 2.0 kgApple priced Rs. 50.0 per kg, 1.5 kg Mango priced Rs.35.0 per kg, 2.5 kg Potato priced Rs.10.0 per kg, and
1.0 kg Tomato priced Rs.15 per kg. He gives the currencyofRs.500totheshopkeeper.Findouttheamount shopkeeper will return to X by writing a C program.

:

```
#include<stdio.h>


intmain(){
   //Declarevariables
   float currencyWithMrX = 500.0;
   float applePricePerKg = 50.0;
   float mangoPricePerKg = 35.0;
   float potatoPricePerKg = 10.0;
   float tomatoPricePerKg = 15.0;
   float totalAmountSpent;


   //Calculatethetotalamountspent
   float appleCost = 2.0 * applePricePerKg;
   floatmangoCost=1.5*mangoPricePerKg; float
   potatoCost = 2.5 * potatoPricePerKg;
   floattomatoCost=1.0*tomatoPricePerKg;
```

```
    totalAmountSpent=appleCost+mangoCost+ potatoCost +
tomatoCost;


    //Calculatetheamounttobereturned
    float amountToReturn = currencyWithMrX -
totalAmountSpent;


    //Displaytheamounttobereturned
    printf("TheshopkeeperwillreturnRs.%.2ftoMr. X\n",
amountToReturn);


    return0;
}
```

Q4.Write a C program to print your name, date of birth and mobile number in 3 different lines.

:

```
#include<stdio.h>


intmain(){
    //Declarevariables
    charname[]="YourName";
    chardateOfBirth[]="YourDateofBirth";
    charmobileNumber[]="YourMobileNumber";


    //Print name
```

```
    printf("Name:%s\n",name);

    //Printdateofbirth
    printf("DateofBirth:%s\n",dateOfBirth);

    //Printmobilenumber
    printf("MobileNumber:%s\n",mobileNumber);

    return0;
}
```

Q5.Write a program to read an integer, a character andafloatvaluefromkeyboardanddisplaythesame in different lines on the screen.

:

```
#include<stdio.h>

intmain(){
    // Declare variables
    int intValue;
    char charValue;
    floatfloatValue;

    // Input an integer
    printf("Enter an integer: ");
```

```
    scanf("%d",&intValue);


    // Input a character
    printf("Enter a character: ");
    scanf("%c",&charValue);//Notethespacebefore
%ctoconsumeanynewlinecharacters.


    // Input a float value printf("Enter
    a float value: "); scanf("%f",
    &floatValue);


    // Display the values on separate lines
    printf("Integer: %d\n", intValue);
    printf("Character: %c\n", charValue);
    printf("Float: %.2f\n", floatValue);


    return0;
}
```

Q6.Write a program to print the following line (Assume the total value is contained in a variable named cost)

:

```
#include<stdio.h>


intmain(){
```

```
    //Declareandinitializethecostvariable
    float cost = 100.50; // You can replace this with your desired
value


    // Print the line with the cost variable embedded
    printf("The total cost is: $%.2f\n", cost);


    return0;
}
```

Q7.Rajugot6andhalfapplesfromeachofRaghu, Sheenu and Akash. He wants to know how many appleshehasintotalwithoutaddingthem.Writea program which could help Raju in doing this.

:

```
#include<stdio.h>


intmain(){
    // Number of apples received from each personfloat
    applesFromRaghu = 6.5;
    floatapplesFromSheenu=6.5; float
    applesFromAkash = 6.5;


    // Calculate the total number of apples without
adding them
```

```
    floattotalApples=applesFromRaghu+
applesFromSheenu+applesFromAkash;


    //Displaythetotalnumberofapples

    printf("Raju has %.1f apples in total without adding
them.\n", totalApples);


    return0;

}
```

Q8.Write a program that prints the floating point valueinexponentialformatcorrecttotwodecimal places.

:

```
#include<stdio.h>


intmain(){

    // Declare and initialize a floating-point value float

    floatValue = 1234.56789;


    // Print the floating-point value in exponential
format with two decimal places

    printf("Value in exponential format:
%.2e\n",floatValue);


    return0;

}
```

Q9.Write a program to input and print your mobile number (i.e. of 10 digits).

:

```
#include<stdio.h>


intmain(){
   // Declare a variable to store the mobile number long
   long int mobileNumber;


   //Inputthemobilenumber
   printf("Enter your 10-digit mobile number:
   ");scanf("%lld", &mobileNumber);


   //Checkifthemobilenumberhasexactly10digits if
   (mobileNumber >= 1000000000LL &&
mobileNumber<=9999999999LL){
      // Display the mobile number printf("Your
      mobile number is: %lld\n",
mobileNumber);
   }else{
      printf("Invalid input. Please enter a 10-digit
mobile number.\n");
   }


   return0;
}
```

Q10..The population of a city is 30000. It increases by 20 % during first year and 30% during the second year. Write a program to find the population after two years? (Ans: 46800)

:

```
#include<stdio.h>


intmain(){

   //Initialpopulation

   intinitialPopulation=30000;


   // Calculate the population after the first year
(20%increase)

   int populationAfterFirstYear = initialPopulation
+(initialPopulation * 20 / 100);


   // Calculate the population after the second year
(30% increase)

   int populationAfterSecondYear =
populationAfterFirstYear + (populationAfterFirstYear
*30/100);


   // Display the population after two years printf("Population

   after two years: %d\n",
populationAfterSecondYear);


   return0;
```

}

Q11.Write a program to find the ASCII value of a character.

:

```
#include<stdio.h>


intmain(){
   // Declare a variable to store the character char
   character;


   // Input a character from the user
   printf("Enter a character: ");
   scanf("%c", &character);


   // Calculate and display the ASCII value of the
character
   printf("The ASCII value of '%c' is %d\n", character,
character);


   return0;
}
```

Q12.Write a program to calculate salary of an employee, given his basic pay (entered by user), HRA=15%ofthebasicpayandTA=20%ofthebasic pay.

:

```
#include<stdio.h>

intmain(){
   //Declarevariables
   floatbasicPay,HRA,TA,salary;

   // Inputthebasicpayfromtheuser
   printf("Enter the basic pay: ");
   scanf("%f", &basicPay);

   //CalculateHRAandTA
   HRA = 0.15 * basicPay; // 15% of basic pay TA
   = 0.20 * basicPay; // 20% of basic pay

   // Calculate the total salary
   salary = basicPay + HRA + TA;

   //Displaythetotalsalary
   printf("Salaryoftheemployeeis:%.2f\n",salary);

   return0;
}
```

Q13.Write a program to find the slope of a line and angle of inclination that passes through two points P

and Q with coordinates (xp, yp) and (xq, yq) respectively.

:

```
#include <stdio.h>
#include<math.h>


intmain(){
   // Declare variables for the coordinates of points P and
Q
   doublexp,yp,xq,yq;


   //Inputcoordinatesfromtheuser
   printf("Enter the coordinates of point P (xp yp): ");
   scanf("%lf %lf", &xp, &yp);


   printf("Enter the coordinates of point Q (xq yq): ");
   scanf("%lf %lf", &xq, &yq);


   //Calculatetheslope
   doubleslope=(yq-yp)/(xq-xp);


   // Calculate the angle of inclination (in degrees) double
   angleInDegrees = atan(slope) * 180 / M_PI;


   //Displaytheresults
```

```
    printf("The slope of the line passing through P and Q
is: %.2lf\n", slope);

    printf("Theangleofinclination(indegrees)is:
%.2lf\n",angleInDegrees);


    return0;

}
```

Q14.The SPI (Semester Performance Index) is a weighted average of the grade points earned by a student in all the courses he registered for in a semester.Ifthegradepointsassociatedwiththeletter grades awarded to a student are g1, g2, g3,…….gk etc. and the corresponding credits are c1, c2, c3,. .....ck,the SPIisgivenby:

:

```
#include<stdio.h>


intmain(){

    // Define the number of courses (k = 5) int

    k = 5;


    // Define arrays for grade points and credits for each
course

    doublegradePoints[k]={3.5,4.0,3.7,3.2,3.9};

    intcredits[k]={3,4,3,2,4};


    //CalculateSPI
```

```
    doubletotalGradePoints=0.0; int
    totalCredits = 0;

    for(inti=0;i<k;i++){
        totalGradePoints += gradePoints[i] * credits[i];
        totalCredits += credits[i];
    }

    doublespi=totalGradePoints/totalCredits;

    //Display SPI
    printf("TheSemesterPerformanceIndex(SPI)for
%dcoursesis:%.2lf\n",k,spi);

    return0;
}
```

Q15.Write a program to calculate the frequency (f) of a given wave with wavelength (λ) and speed (c),where c=λ*f.

:

```
#include<stdio.h>

intmain(){
    // Declare variables for speed (c) and wavelength (λ)
    double speedOfWave, wavelengthOfWave;
```

```
    //Inputthespeedofthewave printf("Enter the
    speed of the wave (c): "); scanf("%lf",
    &speedOfWave);

    //Inputthewavelengthofthewave printf("Enter the
    wavelength of the wave (λ): ");scanf("%lf",
    &wavelengthOfWave);

    //Calculatethefrequency(f)
    double frequencyOfWave = speedOfWave /
wavelengthOfWave;

    //Displaythefrequency
    printf("The frequency of the wave (f) is: %.2lf\n",
frequencyOfWave);

    return0;
}
```

Q16.Acartravellingat30m/sacceleratessteadilyat5 m/s2 for a distance of 70 m. What is the final velocity of the car? [Hint: v2 = u2 + 2as]

:

```
#include <stdio.h>
#include<math.h>
```

intmain(){

//Declarevariables

double initialVelocity = 30.0; // initial velocity in m/s

double acceleration = 5.0; // acceleration in m/s^2 double

distance = 70.0; // distance in meters

doublefinalVelocity;

// Calculate the final velocity using the kinematic equation

finalVelocity=sqrt(pow(initialVelocity,2)+2* acceleration * distance);

//Displaythefinalvelocity

printf("Thefinalvelocityofthecaris%.2fm/s\n", finalVelocity);

return0;

}

Q17..Ahorseacceleratessteadilyfromrestat4m/s2 for3s.(a)Whatisitsfinalvelocity?(b)Howfarhasit travelled? [Hint: (a) v = u + at (b) s = ut + ½at2]

:

#include<stdio.h>

intmain(){

//Givenvalues

```
    double acceleration = 4.0; // Acceleration in m/s^2
    double time = 3.0; // Time in seconds
    double initialVelocity = 0.0; // Initial velocity (at
rest)


    //(a)Calculatethefinalvelocityusingtheformulav
=u+at
    doublefinalVelocity=initialVelocity+(acceleration
*time);


    // (b) Calculate the distance traveled using the
formula s = ut + 0.5 * at^2
    double distanceTraveled = (initialVelocity * time) +
(0.5 * acceleration * time * time);


    //Displaytheresults
    printf("(a) The final velocity of the horse is %.2f m/s\n",
finalVelocity);
    printf("(b) The horse has traveled a distance of %.2f
meters\n", distanceTraveled);


    return0;
}
```

Q18.Write a program to find the sum of your four last digit of your university roll number .

:

```
#include<stdio.h>
```

```
intmain(){
   // Declare a variable to store the integer (roll
number)
   introllNumber;

   // Input the integer (roll number)printf("Enter
   your university roll number: "); scanf("%d",
   &rollNumber);

   //Extract and sum the lastfour digits
   int lastFourDigits = rollNumber % 10000; // Get the
remainderwhendividedby10,000
   intsum = 0;

   while(lastFourDigits>0){
      sum += lastFourDigits % 10; // Add the last digit to
the sum
      lastFourDigits/=10;//Removethelastdigit
   }

   // Display the sum of the last four digits printf("The
   sum of the last four digits of your roll
numberis:%d\n",sum);

   return0;
```

}

Q19.Write a program to initialize your height and weight in cm. and kgs respectively demonstrating compile time initialization and convert them in feets andpoundsrespectively.Note:-1cm=0.393701inch, 1 Kg = 2.20462

:

```
#include<stdio.h>


intmain(){
   // Initialize height in centimeters and weight inkilograms
   double heightInCm = 175.0; // Replace with your height in cm
   doubleweightInKg=70.0;//Replacewithyour weight in kg


   //Conversionfactors
   doublecmToInch=0.393701;
   doublekgToPound=2.20462;


   //Convertheightfromcmtofeet
   double heightInFeet = heightInCm * cmToInch /12.0;


   //Convertweightfromkgtopounds
   doubleweightInPounds=weightInKg*kgToPound;
```

```
    //Displaytheconvertedvalues

    printf("Height:%.2fcmisequivalentto%.2ffeet\n",
heightInCm, heightInFeet);

    printf("Weight: %.2f kg is equivalent to %.2f pounds\n",
weightInKg, weightInPounds);


    return0;

}
```

Q20.Codethevariabledeclarationsforeachof following:

A. Acharactervariablenamedoption.

B. Anintegervariablesuminitializedto0

C. Afloatingpointvariable,product,initializedto1

:

```
A.  Acharactervariablenamedoption:charoption;

B.  Anintegervariablesuminitializedto0:intsum=0;

C.Afloating-point variable product initialized to
1:float product = 1.0;
```

Q21.Write a program that reads nine integers. Display these numbers by printing three numbers in a line separated by commas.

:

```
#include<stdio.h>


intmain(){
```

```
    intnumbers[9];//Arraytostorethenineintegers

    //Inputnineintegers
    printf("Enter nine integers, one at a time:\n");
    for (int i = 0; i < 9; i++) {
        scanf("%d",&numbers[i]);
    }

    // Display the numbers in sets of three
    printf("Numbersinsetsofthree:\n"); for
    (int i = 0; i < 9; i++) {
        printf("%d",numbers[i]);

        // Print a comma and newline every three
numbers
        if((i+1)%3==0){
            printf("\n");
        }else{
            printf(",");
        }
    }

    return0;
}
```

Q22.. What are header files and what are its uses in Cprogramming?

:

HeaderfilesinCprogrammingarefilesthatcontain declarationsanddefinitionsneededforaprogramto interact with certain features or functions provided by the C standard library or other libraries. These files typically have a .h extension and contain information about functions, data types, macros, andothersymbols.Headerfilesserveseveralimportant purposes in C programming:

Q23.What will be the output of following program?

```
#include<stdio.h>

intmain()

{ int num=070;

printf("%d\t%o\t%x",num,num,num);

}
```

:

So,thecorrectedoutputoftheprogramwillbe:5670 46

Q24.Whatwillbetheoutputoffollowingprogram?

```
#include
<stdio.h>

voidmain()

{

int x = printf("GLA UNIVERSITY");

   printf("%d", x);

   }
```

:

GLAUNIVERSITY14

Q25.What are library functions? List any four library functions.

:

Library functions, also known as standard library functions or built-in functions, are predefined functions that are part of the C standard library or other libraries and can be used in C programs to perform common tasks without the need for writing customcode.Thesefunctionsaredesignedtoprovide a wide range of functionality, from input/output operations to mathematical calculations and more.

Printf() scanf()

starken()

Q26.Whatwillbetheoutputoffollowingprogram? #include

<stdio.h>

voidmain()

{

int x = printf("C is placement oriented Language") – printf(“Hi”);

printf("%d%o%x",x,x,x);

}

:

So,theoutputofthecorrectedprogramwillbe:2935 1d

Q27.Whatisthemeaningoffollowingstatement? printf(“%d”,scanf(“%d%d”,&a,&b));

:

scanf("%d%d", &a, &b);: This part of the statement uses the scanf function to read two integer valuesfrom the standard input (usually the keyboard). The format specifier "%d%d" specifies that it expects two integers separated by whitespace. The values are read into the variables a and b.

printf("%d",...);:Thispartofthestatementusesthe printffunctiontoprintavalue.Inthiscase,it'strying to print the return value of the scanf function.

Q28.Whatwillbetheoutputoffollowingprogram? #include

<stdio.h>

voidmain()

{

printf("\"C%%FOR%%PLACEMENT\"");

}

:

"C%FOR%PLACEMENT"

Q29.Suppose distance between GLA University and Delhi is m km (to be entered by user), by BUS you can reach Delhi in 4 hours. Develop a ‘C’ program to calculate speed of bus.

:

#include<stdio.h>

intmain(){

```
    doubledistance;//Distanceinkilometers
    doubletime=4.0;// Timeinhours(knowntobe4 hours)


    //Inputthedistancefromtheuser
    printf("EnterthedistancebetweenGLAUniversity
and Delhi (in kilometers): ");
    scanf("%lf",&distance);


    // Calculate the speed (speed = distance / time)
    double speed = distance / time;


    //Displaythespeedofthebus
    printf("Thespeedofthebusis%.2lfkm/h\n",
speed);


    return0;
}
```

Q30.InanexamSatyamgot50marks,Sumangot70 marks and Shyam got 80 marks, Write a 'C' program to find average marks of these three participants.

:

```
#include<stdio.h>


intmain(){
    //MarksobtainedbySatyam,Suman,andShyam
```

```
    intsatyamMarks=50;
    int  sumanMarks  =  70;
    int shyamMarks = 80;


    //Calculatethetotalmarks
    int totalMarks = satyamMarks + sumanMarks +
shyamMarks;


    //Calculatetheaveragemarks
    float averageMarks = (float)totalMarks / 3; // Using float
for accurate division


    //Displaytheaveragemarks
    printf("The average marks of Satyam, Suman, and
Shyam is: %.2f\n", averageMarks);


    return0;
}
```

Q31.Oneday,MohancalledSauravandSajalandgave some money to them, later he realized that moneythat was given to Saurav should be given to Sajal and vice-versa. Develop a 'C' program to help Mohan so that he can rectify his mistake.

:

```
#include<stdio.h>


intmain(){
```

```
    intsauravMoney,sajalMoney,temp;

    //Inputtheinitialamountsofmoney
    printf("Entertheamountofmoneygiventosaurav: ");
    scanf("%d",&sauravMoney);

    printf("Entertheamountofmoneygiventosajal: ");
    scanf("%d",&sajalMoney);

    // Swap the money amounts using a temporary
variable
    temp = sauravMoney;
    sauravMoney = sajalMoney;
    sajalMoney = temp;

    // Display the corrected amounts of money
    printf("After rectifying the mistake:\n");
    printf("Money given to Saurav: %d\n",
sauravMoney);
    printf("MoneygiventoSajal:%d\n",sajalMoney);

    return0;
}
```

Q32.One day when I was going for a lunch, suddenly rain started, I was very hungry so started runningwithspeedof4km/handittook3mintoreachmess. Help me to develop a 'C' program to calculate distance travelled by me.

:

```
#include<stdio.h>


intmain(){
   double speed_kmph = 4.0; // Speed in kilometers per hour
   double time_hr = 3.0 / 60.0; // Time in hours (3 minutes converted to hours)


   //Calculatethedistancetraveled
   doubledistance_km=speed_kmph*time_hr;


   //Displaythedistance
   printf("Thedistancetraveledis%.2fkilometers\n", distance_km);


   return0;
}
```

Q33.Cantwoormoreescapesequencessuchas\nand \tbecombinedinasinglelineofprogramcode?

:

```
printf("Hello,\n\tWorld!\n");
```

34.WhatarecommentsandhowdoyouinsertitinaC program?

:

Comments in C are explanatory notes or annotations that are added to the source code to provide information, explanations, or descriptions to make the code more understandable to developers (including yourself) and to document the code's functionality. Comments are ignored by the compiler and do not affect the program's execution; they exist solely for human readability.

InC,therearetwotypesofcomments:

Single-line comments: These comments are used for adding explanations or notes on a single line. Theybeginwith//andcontinueuntiltheendoftheline.

//Thisisasingle-linecomment

int x = 10; // This comment explains the purpose of this variable

Multi-line comments: These comments can span multiple lines and are enclosed within /* and */. They are typically used for longer explanations or for commenting out entire blocks of code.

/*Thisisamulti-linecomment.

It can span multiple lines and is useful

forprovidingdetailedexplanations.*/

inty=20;

Q35.Whatiswronginthisstatement? scanf(“%d”,number);

:

The statement scanf("%d", number); has a minor issueinitsformatspecifier.InC,thescanffunction expectsapointertothevariablewhereitshouldstore theinputvalue.However,intheprovidedstatement, numberisnotapointer;it'sjustavariable.Tocorrect the statement, you should use the address-of operator(&) to provide the memory address of the number variable to scanf, like this:

scanf("%d", &number);

Q36.What will be the output?

#include<stdio.h> int

main()

{

if(sizeof(int)>-1)

printf("Yes");

else

printf("No");

return 0;

}

:

The output of the given program will be "Yes."

Q37.

:

Among the provided variable names, the invalid ones are:gross-salary: Variable names cannot contain hyphens ("-"). You can use underscores (_) instead if

needed. For example, gross_salary would be a valid alternative.

avg.: Variable names cannot contain a period (dot). Remove the period to make it valid, like avg would be a valid variable name.

thereisbookinmysoup: This variable name is valid. It consists of alphanumeric characters without any spacesorspecialcharacters,anditdoesn'tstartwith a digit.

Q38.Tom works at an aquarium shop on Saturdays. One Saturday, when Tom gets to work, he is asked to clean a 175-gallon reef tank. His first job is to drain the tank. He puts a hose into the tank and starts a siphon. Tom wonders if the tank will finish draining before he leaves work. He measures the amount of water that is draining out and finds that 12.5 gallons drainoutin30minutes.So,hefiguresthattherateis 25 gallons per hour. Develop a 'C' program to help Tom to calculate time required to completely clean tank.

:

```
#include<stdio.h>


intmain(){
   doublevolume=175.0;//Volumeofthetankin gallons
   doublerate = 25.0; //Drain rate in gallons per hour


   // Calculate the time required to drain the
tankcompletely
   doubletime_hours=volume/rate;
```

```
    //Displaythetimerequiredinhours
    printf("Timerequiredtocompletelycleanthetank:
%.2fhours\n",time_hours);

    return0;
}
```

Q39.Thepercenty(indecimalform)ofbatterypower remaining x hours after you turn on a laptop computerisy=−0.2x+1.Developa‘C’programto calculateafterhowmanyhoursthebatterypoweris at 75%?

:

```
#include<stdio.h>

intmain(){
    double desiredPower = 0.75; // 75% battery poweras a
decimal
    doublex;//Numberofhours

    //Solveforxusingtheequation:y=-0.2x+1
    // Rearrange to find x: x = (1 - y) / 0.2 x
    = (1.0 - desiredPower) / 0.2;

    //Displaytheresult
    printf("Thebatterypowerwillbeat75%%after
%.2fhours.\n",x);
```

return0;

}

Q40.Which of the following is used to convert the high level language in machine language in a single go?

a.Compiler b.Interpreter

c.Linker d.Assembler

:

a. Compiler

Q41.What is the format specifier for an Octal Number?

a. %0 b.%d

c.%o d.%

:

c.%o

Q42.Which format specifier is used to print the exponent value upto 2 decimal places.

a.%e.b.%.2f.c.%f d.%.2e

:

d.%.2e

Q43.Which of thefollowing isnot abasic data type?

a. char

b. array

c. float

d. int

:

b. array

Q44.Whatistheoutputoffollowingcode? #include<stdio.h>

voidmain()

{

intx=0;

x=printf("\"hello\b\"");

printf("%d",x);

}

a.hello7 b. "hello"7. c."hell"8. d. hell8

:

c. "hell"8

What is the output of following code?

#include<stdio.h>

voidmain()

{

intb,c=5;

int("%d,%d",b,c);

}

a. 5,5. b.5,5.000000

c.Garbage,5.000000d.Garbage,5

:

d.Garbage,5

Q46.Whichofthefollowingisanidentifier?

a.&fact. b.Basic_pay. c.enum. d. 1sum

:

C.enum

Q47.What is the output of the following program?

#include<stdio.h>

voidmain()

{

char x, a='c';

x=printf("%c",a);

printf("%d",x);

}

a. c1.b.cgarbage

c.1 c.c

:

C.1

Q48.Perform the following conversion from Decimal to other number as directed-

A.(365.55)10=(?)2

B.(453.65)10=(?)8

C.(5164.12)10=(?)16

D.(23.65)10=(?)5

E.(772)10=(?)7

:

(365.55)10=(101101101.10011)2

(453.65)10=(705.52)8

(5164.12)10=(1424.28)16(23.65)10=(43.1)5

(772)10=(1664)7

Q49.convert the following numbers to decimal number system-

(325.54)6=(?)10

(1001010110101.1110101)2=(?)10

(742.72)8=(?)10

(AC94.C5)16=(?)10

:

(325.54)6=(179.08333333)10(approximately) (1001010110101.1110101)2=(4781.9765625)10 (approximately)(742.72)8 = (482.875)10(

AC94.C5)16=(44116.7734375)10(approximately)

Q50.Perform the following conversion from Hexadecimal to other number as directed-

(DB56.CD4)16=(?)2,(?)8,(?)4

:

(DB56.CD4)16=(1101101101010110.110011010100)2

(DB56.CD4)16=(33566.6413125)8

(DB56.CD4)16=(56222.803125)10

Q51.Perform the following conversion from octal to other number as directed-

(473.42)8=(?)2,(?)10,(?)16,(?)5

:

(473.42)8=(1001110011.010)2

(473.42)8=(315.25)10

(473.42)8=(1A3.2)16

(473.42)8=(1333.21)5

Q52.Find the value of A?

(23)10=(17)A

(21)16=(41)A

(32)8=(101)A

:

A≈1.35

A≈0.51

A≈0.32

Q53.Whatwillbetheoutputoffollowingprogram? Assumeintegerisof2bytes void

main(){

int a=32770;

printf("%d",a);

}

:

In the given program, you are assigning the value 32770toanintegervariable'a'.Sinceyou've mentionedthatanintegerisassumedtobe2bytes, this program can result in an overflow because the value 32770 is outside the range that a 2-byte integer can hold.

Q54.#include<stdio.h> int

main()

{

floatc=5.0;

printf ("Temperature in Fahrenheit is %.2f", (9/5)*c + 32);

return0;

}

:

(9/5)*c+32