

Vishu Sharma (68)

AY 2

Assignment

Q1 include <stdio.h>

int main () {

int price , Rate , total-price ;

printf ("Enter original price of the product ");

scanf ("%d", &price);

printf ("The total price after adding sales tax is %d ", total-price); ~~total~~

Output:

Enter original price of the product 500

Enter sales tax .25.

The total price after adding sales tax is 25

Q2

include <stdio.h>

int main () {

int wages , hours , total-wage ;

printf ("Enter daily wage ");

scanf ("%d", &wages);

scanf ("%d", &hours);

if (hours > 30).

{ total wages = wages * hours * 2 ;

}

else

total-wage = wages * hours ;

printf ("Total wage is %.d ", total-wage); }

}

~~Q3~~ #include <stdio.h>

int main()

int x;

printf ("The amount shopkeeper will return
to x");

$x = 500 - \{ (2.0 * 50) + (1.5 * 35.0) + (2.5 * 10.0)$
 $+ (15 * 1.0); \}$

printf ("%d", x);

return 0;

}

Output : The amount Shopkeeper will return
tax 307

~~Q4~~

#include <stdio.h>

int main()

{ * printf ("Name\t\t: Vishu Sharma

\n DOB\t\t: 2-Nov-2005 \n mobile-no:

7668909881");

return 0;

}

Output :-

Name : Vishu Sharma

DOB : 2-Nov-2005

Mobile no : 7668909881.

Vishu Sharma (68) AY2

Q5 #include <stdio.h>
int main ()
{ int a ;
char b ;
float c ;
printf ("enter a integer") ;
scanf ("%d", &a) ;
printf ("enter a character") ;
scanf ("%c %c", &b) ;
printf ("Enter a decimal / float number") ;
scanf ("%f", &c) ;
printf ("%d %c %.2f", a, b, c) ;
return 0 ;
}

Output

enter a integer 1.

enter a char w

enter a decimal 14

w
5

4.00000

Vishu Sharma AY2 (6B)

Q1 # include < stdio.h >

int main ()

{ float cost ;

cost = \$ 172.53 ;

printf (" The sales total is %.2f ", cost);
return 0 ;

}

Output

The sale total is : \$ 172.53

Q2 # include < stdio.h >

int main ()

{ float apple = 6.5 ;

printf (" Total apples Raju got from
his friends = %.2f ", 3);

return 0 ;

}

Output : Total apple Raju got from his
friends = 19.5

Vishu Sharma (68)

Q8 #include <stdio.h>
int main ()

{
float a;
scanf ("%f", &a);
printf ("%ze", a);
return 0;
}

Output :
484.75
4.85e+002.

Q9 #include<stdio.h>
int main ()

{
long long int ~~num~~ num;
scanf ("%lld", &num);
printf ("mobile_no : %lld", num);
return 0;
}

Output

7310974080

Mobile_no : 7668909081

Q10 # include <stdio.h> Visha Sharma (GB)
int main ()
{ int p=3000, n ;
n = p * (120 / 100) * (130 / 100);
printf ("population after two years
= %d ", n,
return 0 ;
}

Output :
population after two years = 96800

Q11 # include <stdio.h>
int main ()
{ char a ;
scanf ("%c", &a)
printf ("%d", c);
return 0 ;
}

Output
A
65 .

Q12 # include <stdio.h>
int main ()
{ float pay , HRA , TA ; Total ;
scanf ("%f", pay);

Viswanathan

```
HRA = (15/100) * pay ;    (60)
Total = pay + HRA + TA
printf ("salary : %2f , " Total);
return 0;
}
```

Output
100 00
Salary : 13500.0

Q13

```
# include <stdio.h>
# include <math.h>
int main ()
{
    float np, yp, nq, yq, m, angle;
    printf ("Enter x and y coordinates of
            p ");
    scanf ("%f, %f, %f", &np, &nq, &yp,
           &yq);
    m = (yp - yq) / (np - nq);
    printf ("%f \n", m);
    angle = atan(m) * 180 / 3.14;
    printf ("%f", angle);
    return 0;
}
```

Output

enter x and y coordinates
 of P 3251
 4.00000
 76

```
#include < stdio.h >
#include < math.h >
int main ()
```

```
{ int c1, c2, c3, c4, c5, g1, g2, g3, g4, g5
printf (" enter 5 credits ");
scanf ("%d %d %d %d %d", &c1, &c2, &c3,
       &c4, &c5);
printf (" enter 5 grades");
scanf ("%d %d %d %d %d", &g1, &g2, &g3, &g4,
       &g5);
float sp1;
sp1 = (c1*g1 + c2*g2 + c3*g3 + c4*g4
       + c5*g5) / (c1 + c2 + c3 + c4 + c5);
printf ("%f", sp1);
return 0;
```

{}

Output

enter 5 credits	44	221
* 24	55	grades 25 30 24 22 21
25 674584		

Q15 #include <stdio.h>

int main()

{

float w, f, c;

scanf("%f", &f);

scanf("%f", &w);

c = f * w;

printf("%f", c);

return 0;

}

Output

2

5000

10000.00000

Q16 #include <stdio.h>

int main()

{

int u = 30, r = 70, a = 5, v,

printf("u=%d m/s\na=%d m/s^2\nv=%d", u, a, v);

m/m, "u, a, v);

v = u + 2 * a * s;

printf("final velocity = %d m/s, v);

return 0;

}

Output

u = 30 m/s

a = 5 m/s²

s = 70 m

final velo. = 730 m/s

Q18 # include <stdio.h>
int main()

{
long long int n, p, q, r, s;
scanf (" %d ", &n);
p = (n / 10);
n = n / 110;
q = n / 100;
r = (n % 10);
n = n / 10;
s = (n % 10);
printf ("%d", p + q + r + s);
return 0;
}

Output :

46895764

22

Q19 # include <stdio.h>
int main()

{
float h, w, hff, w, b;
printf ("Enter height and weight in
cm and kg ");
scanf ("%f", "%f", &h &w);

Vishu Sharma (68)

$$H_f = n * 0.0393701 / 12;$$

$$w_p = w * 2.20962;$$

printf ("%.f/n %.p", H_f, w_p);

Output

Enter height and weight

152. 45

4.986879

99.207907

Q20

#include <stdio.h>

int main ()

{ (a) char option ;

(b) int sum = 0 ;

(c) float product = 1 ;

}

Q(21)

#include <stdio.h>

int main ()

{

int a, b, c, d, e, f, g, h, i ;

scanf ("%d %d %d %d %d %d %d %d %d",
&a, &b, &c,

&d, &e, &f, &g, &h, &i) ;

printf ("%d %d %d \n %d %d %d", a, b, c, d, e, f, g, h, i) ;

\n %d %d", a, b, c, d, e, f, g, h, i) ;

return 0;

3.

Output: 12 3 4 5 6 7 8 9

~~Q2200~~ 1, 2, 3

4, 5, 6

7, 8, 9

- 22) A Header file is a file with extension .h which contain C functions declaration and macro definitions to be shared between several sources files. that the programmers writes.

23) Output :

56 ----- 70 ----- 38.

24) Output :

GLA UNIVERSITY 14.

- 25) Library functions are in built functions located in some common location.

26) Output :

C is placement oriented language Hi 30
36 i.e.,

Q27 ("%d", scanf("%d", &a & b));
Vishnu Sharma (68).
O/p - 2

Q28 Output

"C % for % PLACEMENT

Q29 #include <stdio.h>
int main ()
{
 int d, t = 4, s;
 scanf ("%d", &d);
 printf ("distance b/w GLA and
Delhi = %d);
 printf ("% in time taken by bus = %d h, %d);
 s = d*t;
 printf ("\n speed of bus = %.d km/s);
 return 0;

3.

Output:

100
distance b/w GLA & Delhi = 100
Time by bus = 4h

Speed of bus = 100 km/h

Q31 #include <stdio.h>
#include <math.h>
int main()

{
int s,a ; // s is saurav and a is sajal.
printf (" money given to saurav ");
scanf ("%d", &s);
printf (" Money given to sajal ");
scanf ("%d", &a);
s = s + a ;
a = s - a ;
s = s - a ;
printf (" Saurav %d \n sajal %d ", s, a);
return 0;

}

Output

money given to saurav = 25

Money " to sajal = 85.

Saurav = 654

Sajal = 234

Q32 #include <stdio.h>
int main()
{ int d,sz,t=3
d = sz + t ;

```
printf ("%.d , %d);  
return 0;
```

<u>output</u>
12

3.

Q33

Yes, two or more escape sequences be combined in a single line of program.

Q34

Comments in C are used to provide information about all the code written by ~~us~~ us.
"/" asterics /* */.

Q35

Scarf ("%d", number) — wrong
scanf ("%d", &number) — correct.

Q36

```
#include <stdio.h>  
int main ()
```

```
{ if (size of (int) > -1)  
    printf ("Yes");  
else  
    printf ("No");  
return ();
```

3.

Q37 Invalid - gross - salary Interest , salary
of emp. are

Q38 # include <stdio.h>
int main ()

{ int g=175 ; t , g = 25 ;
t = g * ;

printf (" time required %d , t

return 0 ;

}

Output :

time require = 7

Q39 # include <stdio.h>
int main ()

{ float n , y = 75 ;

//y = 0.221 + 1

n = (1 - (y / 100)) / 0.2 ;

printf (" time = %f , n) ;

return 0 ;

}

Output

time = 1.25

Q₄₀ a) compilerQ₄₁ (C) % 0Q₄₂ (d) % 2 eQ₄₃ (B) arrayQ₄₄ (C) $^4\text{He}^4$, 8.Q₄₅ (d) carriage, 5.Q₄₆ (C) enumQ₄₇ (C) 1Q₄₈ perform ----- directed.

(a) $(365 \cdot 55)_{10} = (?) = (101101101 \cdot 100011)^2$

365 = 101101101

55 = 100011

0.55 × 2 = 1. 0 - 1

0.10 × 2 = 0.20 - 0

0.20 × 2 = 0.40 - 0

0.40 × 2 = 0.80 - 0

0.80 × 2 = 1.60 - 1

0.60 × 2 = 1.20 = 1.

Vigesimal Shama (GB)

2	365
2	180
2	91
2	45
2	22
2	4
2	5
2	4
2	2
2	1

1
0
1
0
1
0
0
1



$$\text{Ans} = 365 \cdot 65 = (?) = (705.514632)$$

$$\begin{aligned}
 0.65 \times 8 &= 5.2 \\
 0.2 \times 8 &= 1.6 \\
 0.6 \times 8 &= 4.8 \\
 0.8 \times 8 &= 6.4 \\
 0.4 \times 8 &= 3.2 \\
 0.2 \times 8 &= 1.6
 \end{aligned}
 \quad \left| \begin{array}{r}
 5 \\
 1 \\
 4 \\
 6 \\
 3
 \end{array} \right.$$

$$(b). (135 \cdot 65) = (?) = (705.51463)$$

$$\begin{aligned}
 0.65 \times 8 &= 5.2 \\
 0.2 \times 8 &= 1.6 \\
 0.6 \times 8 &= 4.8 \\
 0.8 \times 8 &= 6.4 \\
 0.4 \times 8 &= 3.2 \\
 0.2 \times 8 &= 1.6
 \end{aligned}
 \quad \left| \begin{array}{r}
 5 \\
 1 \\
 4 \\
 6 \\
 3
 \end{array} \right.$$

W.M. Sharpe (68).

(L) $(5164.12)_{10} = (142C.1085)_{16}$.

$$\begin{array}{r} 16 \mid 5164 \\ \hline 16 \mid 322 \\ \hline 16 \mid 20 \\ \hline 16 \mid 1 \end{array}$$

$$\begin{array}{r} 12-C \\ \hline 2 \\ 4 \\ \hline 1 \end{array}$$

$$\begin{aligned} 0.12 \times 16 &= 1.92 - 1 \\ 0.92 \times 16 &= 14.72 - \\ 0.72 \times 16 &= 11.52 - \\ 0.52 \times 10 &= 8.32 - 8 \\ 0.32 \times 16 &= 5.12 - 5 \end{aligned}$$

(d) $(23.65)_{10} = (43.3)_5$

$$\begin{array}{r} 5 \mid 23 \\ \hline 5 \mid 4 & 3 \\ \hline 0 & 4 \end{array}$$
$$0.6 \times 5 = 3$$

649 (a) $(325.54)_6 = (?)_{10} = (125.944)_{10}$
 $= 3 \times 6^2 + 2 \times 6^1 + 5 \times 6^0 + 5 \times 6^{-1}$
 $+ 4 \times 6^{-2}$
 $= (125.944)_{10}$

(b) $(100101011010.1110101)_2 = (?)_{10}$
 $= (4788.914)$

$$\begin{aligned} 1 \times 2^{12} + 1 \times 2^9 + 1 \times 2^7 + 1 \times 2^5 + 1 \times 2^4 \\ + 1 \times 2^2 + 1 \times 2^1 + 1 \times 2^{-1} + 1 \times 2^{-2} + 1 \times 2^{-5} \\ + 1 \times 2^{-7} \\ = (4789.914)_{10}. \end{aligned}$$

Vishnu Shama (6.8)

$$(c) (742 \cdot 72)_8 = (2)_{10} = (496 \cdot 075)_{10}$$

$$= 7 \times 8^2 + 4 \times 8^1 + 2 \times 8^0 + 7 \times 8^{-1} + 2 \times 8^{-2}$$

$$= (496 \cdot 075)_{10}$$

$$(d). (A(94 \cdot 15)_{16} - (44180 \cdot 77))_{10}$$

$$= 10 \times 16^3 + 12 \times 16^2 + 9 \times 16^1 + 4 \times 16^0$$

$$+ 12 \times 16^{-1} + 5 \times 16^{-2}$$

$$= (44180 \cdot 77)$$

Q50: $(DB56 \cdot CD4)_{16}$

$$= (?)_2 = (01101101101010110 \cdot 110011010100)_2$$

$$(?)_8 = (155526 \cdot 6324)_8$$

$$(?)_4 = (31221112 \cdot 303110)_4$$

Q51 $(473 \cdot 42)_8 = (?)_2, (?)_{10}, (?)_{10}, (?)_5$

$$(?)_2 = (100111011 \cdot 100010)_2$$

$$= 1 \times 2^8 + 1 \times 2^5 + 1 \times 2^4 + 1 \times 2^3 + 1 \times 1$$

$$+ 2^{-1} + 1 \times 2^{-5}$$

Vishnu Sharma (68)

$$(?)_{10} = (314 \cdot 53125)_{10}$$

$$(?)_{10} = (13A \cdot 88)_{16}$$

$$(?)_5 = (2224 \cdot 231)_5$$

(52) (a) $(23)_{10} (17)_A$

$$23 = 1 \times A^1 + 7 \times A^0$$

$$23 = A + 7$$

$$A = 23 - 7$$

$$\boxed{A = 16}$$

(b) $(21)_{10} = 41(A)$

$$(41)_A = (21)_{\frac{16}{4}}$$

$$4 \times A^1 + 4 \times A^0 = 2 \times 16^1 + 1 \times 16^0$$

$$4A = 33 - 1$$

$$A = \frac{32}{4}$$

$$\boxed{A = 8}$$

(c) ~~Ques.~~ $(32)_8 = (101)_A$

$$(101)_A = (32)_8$$

$$1 \times A^2 + 1 \times A^1 = 3 \times 8^1 + 2 \times 8^0$$

$$A^2 + 1 = 26$$

$$A^2 = 25$$

$$\boxed{A = 5}$$

Vishu Sharma (68).

Q53

Output

32770

Q54

Output

Temperature in Fahrenheit is $37^{\circ}00$.