Arpit Kumar Dubey
AL-I, II

Q4:
```
#include <stdio.h>
int main()
{ printf("Arpit Kumar Dubey\n02-04-2004\n7307604829");
  return 0;
}
```

Output:
Arpit Kumar Dubey
02-04-2004
7307604829

Q5
```
#include <stdio.h>
int main()
{ int i;
  char c;
  float f;
  scanf("%d %c %f", &i, &c, &f);
  printf("%d\n%c\n%f", i, c, f);
  return 0;
}
```

Input => 54 A 25.65
Output:
54
A
25.650000

Q6.
```
#include <stdio.h>
int main()
{ float c=172.53;
  printf("The sales total is : $%.02f", c);
  return 0;
}
```

Output: The sales total is : $ 172.53

Arpit Kumar Bud
AL-I , II

Page.

Q13.

```
# include <stdio.h>
# include <math.h>
 int main ()
{  float x1, x2, y1, y2, s, t, z;
   printf ("enter coordinates of A and B");
   scanf ("%f %f %f %f", &x1, &y1, &x2, &y2);
   s= (y2-y1) / (x2-x1);
  printf "Slope is %.2f \n", s);
    z = atan (s);
    t = 180/3.14 * z;
   printf ("angle is %f degree," t);
   return 0;
  }
```

Input: enter coordinates of A and B 12 14 14 16
output: Slope is 1.00
angle is 45.022827 degree.

Q14.

```
# include <stdio.h>
int main()
{ float spi g1, g2, g3, g4, g5, c1, c2, c3, c4, c5;
  printf("enter grades of 5 courses");
   scanf("%f %f %f %f %f", &g1, &g2, &g3, &g4, &g5);
  printf("enter credits of 5 courses");
   scanf ("%f %f %f %f %f", & c1, & c2, &c3, &c4, &c5);
   spi = ( c1*g1 + c2*g2 + c3*g3 + c4*g4 + c5*g5) /
                                  (c1 + c2 + c3 + c4 + c5);
    printf("spi is %.2f", spi);
```

Input: enter grates of 5 courses 9 9 9 9 9
enter credits of 5 courses. 5 5 5 5 5
output: Spi is 9.00

Arpit Kumar Dubey
AL-I ; II

Q15.
```
# include <stdio.h>
int main()
{ double w, f;
  printf("Enter Wavelength");
  scanf("%lf", &w);
  f = 300000000/w;
  printf("Frequency = %lf", f);
  return 0;
}
```

Output: Frequency = 60000.000000

Q16.
```
# include <stdio.h>
# include <Math.h>
int main()
{   float v, u=30, a=5, s=70;
    v = pow(u*u + 2*a*s, 0.5);
    printf("final velocity = %.2f", v);
    return 0;
}
```

Output: final velocity = 40.0

Q17
```
# include <stdio.h>
# include <math.h>
int main()
{   float u=0, a=4, t=3, v, s;
    v = u + at;
    s = u*t + 0.5*a*t*t;
  printf("Final velocity = %.2f \n", v);
  printf("Distance travelled = %.2f", s);
  return 0;
}
```

Output: Final velocity = 12.00
Distance travelled = 18.00

Aspit Kumar Dubey
AL,7 , 72

Pratap
Date.
Page.

Assignment 1

Q2. # include <stdio.h>
int main
{ float cp, r, sp;
printf ("enter costprice and rate of tax");
scanf ("%f %f", &cp, &r);
sp = cp + cp* r/100;
printf ("selling price = %.2f", sp);
return 0; }

Input enter costprice and rate of tax 5666.66
18.2

Output: Selling price = 6697.99

Q3. # include <stdio.h>
int main ()
{ float mr;
mr = 500 - (2*50 + 1.5*35 + 2.5*10 + 2*15);
printf ("money returned to x = %f", mr);
return 0;
}

Output money returned to x = 307.500000

Q. 7. Q →

Arpit Kumar Dubey
AL-I, II

Pratap
Date.
Page.

Q7
```
# include <stdio.h>
int main ()
{  int x;
     x = 6.5 * 3
     printf ("Total Apples Raju have = %d, "x);
}
```
Output: Total Apples Raju have = 19

Q8.
```
# include <stdio.h>
int main ()
{  float x;
   scanf ("%f" &x);
   printf ("%e", x);
   return 0;
}
```
Input: 96381.8526
Output: 9.64e+04

Q9.
```
# include <stdio.h>
int main ()
{  long int x = 7307604829;
   printf ("Mobile Number: %ld", x);
   return 0;
}
```
Output: Mobile number : 7307604829

Arpit Kumar Dubey
AL-I, II

Pratap
Date.
Page.

Q10.
```
# include <stdio.h>
int main ()
{  int p1, p2, p3;
   p1 = 30000;
   p2 = p2 + p2 * 20/100;
   p3 = p2 + p2 * 30/100;
   printf ("Population after 2years = %d", p3);
   return 0;
}
```
Output: Population after 2year = 46800.

Q11:
```
# include <stdio.h>
int main ()
{  char c;
   printf ("Enter character:");
   scanf ("%c" & c);
   printf ("ASCII value of %c is %d", &c);
   return 0;
}
```
Input: P
Output: Enter Character : P
ASCII value of P is 80

12.
```
# include <stdio.h>
int main ()
{ float x, ts;
   printf ("Enter basic pay");
   scanf ("%f" & x);
   ts = x + (x * 15/100) + (x * 20/100);
   printf ("total salary is %f", ts);
   return 0;
}
```
Input | Enter basic pay 50000
output | total salary is 67500.00000

Arpit Kumar Dubey
AL-I, II

Pratap
Date.
Page.

Q18:
```
# include <stdio.h>
int main ()
{ long long int n = 25046965, a, b, c, d, s;
    a = (n %10);
    b = (n/10) %10;
    c = (n/100) %10;
    d = (n/100) %10;
    s = a+b+c+d;
  printf ("sum = %lld", s);
    return 0; }
```
Output => sum = 26

Q 19.
```
# include <stdio.h>
int main ()
{ float h, w;
  printf ("enter hight (in cms) and weight (in kgs):");
  scanf ("%f %f", &h, &w);
    h = (h * 0.39701)/12   W = W * 2.20462;
  printf ("Height (in feets) = %.2f \n Weight (in pounds) = %.2f", h, w);
    return 0;
  }
```
Input: enter height (in cms) and weight (in kgs): 178 70
Output: Height (in feets) = 5.89
Weight (in pounds) = 154.32

Q 20.a) Char
b) int sum = 0;
c) float product = 1;

Arpit Kumar Dubey
AL-I , 77

Pratap
Date.
Page.

Q21.
```
# include <stdio.h>
int main ()
{ int x1, x2, x3, x4, x5, x6, x7, x8, x9;
  printf ("enter 9 integers");
  scanf ("%d %d %d %d %d %d %d %d %d", &x1, &x2, &x3,
                                       &x4, &x5, &x6, &x7, &x8, &x9);
  printf ("%d, %d, %d \n %d, %d, %d \n %d, %d, %d",
          x1, x2, x3, x4, x5, x6, x7, x8, x9);
  return 0;
}
```

Input: enter 9 integers 555555555
Output
5, 5, 5
5, 5, 5
5, 5, 5

Q22 A headerfile is a ~~file~~ file containing declarations and macro definitions. It is a predefined library tool available in software to utilise the main functions.

Q23. Output 56 ---- 70 ---- 38

Q24. G I A UNIVERSITY

Q25. The standard library in C has various sub libraries which contain code for many functions. Four library's.
1. stdio.h 2. Math.h 3. Ctyp.h 4. Time.h

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AL-1, 11

Pratap
Data.
Page.

Q-26 C is placement oriented language => 32 characters with spaces

"Hi" => 2 character

%d → 32 - 2 = 30 → convert this to octal

%o → 36

%x → 1e → convert this to hexadecimal

Output: C is placement oriented language 3036 1e

Q 27.

Q 28. "C %c For %c PLACEMENT"

Q 29.

```
#include <stdio.h>
int main()
{ float d, s;
  printf("distance b/w g/a and delhi:");
  scanf("%f", &d);
  s = d/4;
  printf("speed of bus = %.2f Km/hr", s);
  return 0;
```

Output:- distance b/w g/a and delhi: 160
Speed of bus = 40.00 Km/hr.

Arpit Kumar Dubey
AL-I, II

Pratap
Date.
Page.

Q.30.
```
# include <stdio.h>
int main()
{ float x;
  x = (50+70+80)/3;
  printf("Average marks = %f", x);
  return 0;
}
```
Output: Average marks = 66.00

Q.31.
```
# include <stdio.h>
int main()
{ float x,y,a
  scanf("%f %f %f", &y, &x);
    a = y;
    y = x;
    x = a;
  printf("%f %f ", y, x);
  return 0; }
```
input: 35 40
Output: 40 35

Q.32.
```
# include <stdio.h>
int main()
{ int x;
  x = 180 * 40/36;
printf("Distance travelled = %d m", x);
  return 0; }
```
Output: Distance travelled = 200m

Arpit kumar Dubey
AL-I, II

Pratap
Date.
Page.

Q33 Yes

Q35. address of variable has not been mentioned

Q36. NO

Q37. gross-salary INTEREST

Q40. a) Compiler
Q 41 c) I.O
Q 42 d) i.2e
Q 43 b) array
Q 44 "hell"8
Q 45 d) Garbage.5
Q 46 b) Basic-pay
Q 47 a) C7
Q 48 a) $(10110101.10001110)_2$

b) $(705.5146)_8$

c) $(1424.1EB)_{16}$

d) $(43.311)_5$

e) $(2152)_7$

Arpit Kumar Dubey
AL-I, II

Pratap
Date.
Page.

Q49) a) $(125.944)_{10}$
b) $(4789.9140625)_{10}$
c) $(482.90625)_{10}$
d) $(44180.769)_{10}$

Q50 $(1101101010110.1100110101100)_2$
$(155526.6324)_8$
$(31231112.3101)_4$

Q51 $(315.53125)_{10}$

$(100111011.100010)_2$

$(13B.88)_{16}$

52 → 16
→ 8
→ 5

Q53 temperature in fahrenheit is 37.00

Q54 Output ⇒ -32766.