

Q1. Explain the process of Compilation and differentiate primary and secondary memory. (2+2)

Q2. WAP to print all the prime numbers between less than 100. (5)

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AGM*BHN*CIO*
DJPEKQ*
FLR*
    
```

Q3. WAP to print pattern on the output screen→ (5)

Q4. Predict Outputs: (Assume there is no compilation and syntax errors) (1+2+1.5+1.5)

<pre> main() { int x, y= 5, z= 4; x = y>z; printf("%d",X+1); } </pre>	<pre> main() { int a=5,b; a++; b=(a--)+(++a)+(--a); printf("%d--%d--%d", a, b++, ++a); } </pre>	<pre> main() { int i=99; switch(i) { case 'c': printf("Programming") ; case 'd': printf(" is essential."); default: printf(" Don't ignore it"); } } </pre>	<pre> main() { char a = 30; char b = 40; char c = 10; char d = (a * b) / c; printf ("%c ", d); } </pre>
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Q1. What are functions, how and why they are used? Explain various methods for argument passing and return for the functions with examples?

2+4

Q2. Write a program to print sum of n natural numbers using recursion?

4

Q3. Perform the following number system operations

(3+3+1+1+1+1)

a. $(326536)_{10} \leftrightarrow (\text{_____})_{16} \leftrightarrow (1175610)_2$	b. $(4FB32A5)_{16} - (B15FD00)_{16} = (\text{_____})_{16}$ Subtract using r's complement method
c. $(27145.25)_{10} \leftrightarrow (\text{_____})_8$	d. $(-552)_{10} \leftrightarrow (\text{_____})_2$ Represent in 16 bit sign magnitude form
e. $(1100011)_2 + (0111011)_2 = (\text{_____})_2$	f. $(700001)_8 - (573456)_8 = (\text{_____})_8$

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Q1. "My salary is \ 3000" (1)

Write the printf statement which will EXACTLY reproduce the line of text above.

Q2. Code: (2)

```
int a=10,b=5;
b=a++ + ++a + ++b; printf("%d,%d,%d,%d",b,
a++,a,++a);
```

what will be the output when following code is executed?

Q3. Write for loop for the above pattern (4)

1
21
321
4321
54321

Q4. Give difference between getch(), getchar() and getche(). (2)

Q5. Output (2)

```
int i;
void increment ( int i )
{
    i++;
}
int main()
{
    for ( i = 0; i < 10;)
    {
        increment( i )
    }
    printf("i=%d\n", i);
    return 0;
}
```