

SKILL TEST

1. Assume wherever it is missing, the main return int and return 0; is the last statement of the main function. Wherever required, the sizeof (int) to be taken as 4 bytes.
2. Wherever necessary give justification.
3. All questions carry 3 Marks each.

1	<p>What would be the output of the following program?</p> <pre>int x = 40 ; main() { int x = 20 ; printf ("\n%d", x) ; }</pre>	
2	<p>What would be the output of the following program?</p> <pre>main() { extern int i ; i = 20 ; printf ("%d", sizeof (i)) ; }</pre> <p>A. 2 B. 4 C. Would vary from compiler to compiler D. Error, <i>i</i> undefined</p>	

3

What would be the output of the following program?

```
main( )
{
    extern int fun ( float ) ;
    int a ;
    a = fun ( 3.14 ) ;
    printf ( "%d", a ) ;
}
```

```
int fun ( aa )
float aa ;
{
    return ( ( int ) aa ) ;
}
```

- A. 3
- B. 3.14
- C. 0
- D. Error

4

What would be the output of the following program?

```
main( )
{
    int i = 4 ;
    switch ( i )
    {
        default :
            printf ( "\nA mouse is an elephant built by the Japanese" ) ;
        case 1 :
            printf ( "\nBreeding rabbits is a hare raising experience" ) ;
            break ;
        case 2 :
            printf ( "\nFriction is a drag" ) ;
            break ;
        case 3 :
            printf ( "\nIf practice makes perfect, then nobody's perfect" ) ;
    }
}
```

5	<p>Choose the correct answer.</p> <pre>main() { int i = 1 ; for (;;) { printf ("%d", i++); if (i > 10) break ; } }</pre> <p>A. The condition in the <i>for</i> loop is a must. B. The two semicolons should be dropped. C. The <i>for</i> loop should be replaced by a <i>while</i> loop. D. No error.</p>
6	<p>What would be the output of the following program?</p> <pre>main() { char str[] = "Part-time musicians are semiconductors" ; int a = 5 ; printf (a > 10 ? "%50s" : "%s", str) ; }</pre> <p>A. Part-time musicians are semiconductors B. Part-time musicians are semiconductors C. Error D. None of the above</p>

7	<p>Point out the error, if any, in the <i>while</i> loop.</p> <pre> main() { int i = 1 ; while (i <= 5) { printf ("%d", i) ; if (i > 2) goto here ; } } fun() { here: printf ("\nIf it works, Don't fix it.") ; } </pre>
8	<p>Point out the error, if any, in the following program.</p> <pre> main() { int i = 1 ; switch (i) { case 1 : printf ("\nRadioactive cats have 18 half-lives.") ; break ; case 1 * 2 + 4 : printf ("\nBottle for rent - inquire within.") ; break ; } } </pre>

9	<p>What would be the output of the following program?</p> <pre> main() { static int a[20]; int i = 0 ; a[i] = i++ ; printf ("\n%d %d %d", a[0], a[1], i) ; } </pre>
10	<p>What would be the output of the following program?</p> <pre> main() { int i = 3 ; i = i++ ; printf ("%d", i) ; } </pre>
11	<p>What would be the output of the following program?</p> <pre> main() { int i = 2 ; printf ("\n%d %d", ++i, ++i) ; } </pre> <p> A. 3 4 B. 4 3 C. 4 4 D. Output may vary from compiler to compiler. </p>

12	<p>What would be the output of the following program?</p> <pre>main() { float a = 0.7 ; if (a < 0.7) printf ("C") ; else printf ("C++") ; }</pre> <p>A. C B. C++ C. Error D. None of the above</p>
13	<p>How many times the following program would print 'Jamboree'?</p> <pre>main() { printf ("\nJamboree") ; main() ; }</pre> <p>A. Infinite number of times B. 32767 times C. 65535 times D. Till the stack doesn't overflow</p>

14	<p>What would be the output of the following program?</p> <pre> main() { int a, b ; a = sumdig (123) ; b = sumdig (123) ; printf ("%d %d", a, b) ; } sumdig (int n) { static int s = 0 ; int d ; if (n != 0) { d = n % 10 ; n = (n - d) / 10 ; s = s + d ; sumdig (n) ; } else return (s) ; } </pre>
15	<p>Would the following program compile successfully?</p> <pre> main() { char a[] = "Sunstroke" ; char *p = "Coldwave" ; a = "Coldwave" ; p = "Sunstroke" ; printf ("\n%s %s", a, p) ; } </pre>

16	<p>What is the output of the following program?</p> <pre>#include <stdio.h> int main() { int i = 10, j = 20 ; if (i = 5) && if (j = 10) printf ("Have a nice day\n") ; return 0 ; }</pre>
17	<p>What would be the output of the following program?</p> <pre>main() { char str1[] = "Hello" ; char str2[] = "Hello" ; if (str1 == str2) printf ("\nEqual") ; else printf ("\nUnequal") ; }</pre> <p>A. Equal B. Unequal C. Error D. None of the above</p>
18	<p>Is the following program correct? <Yes/No></p> <pre>main() { char *str1 = "United" ; char *str2 = "Front" ; char *str3 ; str3 = strcat (str1, str2) ; printf ("\n%s", str3) ; }</pre> <p>Justify.</p>

19	<p>What is the output of the following Program?</p> <pre># include <stdio.h> int main() { int x = 2 ; if (x == 2 && x != 0) ; printf ("Hello\n") ; else printf ("Bye\n") ; return 0 ; }</pre>
20	<p>What is the output of the following program?</p> <pre># include <stdio.h> int main() { int i = 1 ; while (i <= 10) ; { printf ("%d\n", i) ; i++ ; } return 0 ; }</pre>
21	<p>Which of the following statement is true about a for loop used in a C program?</p> <ol style="list-style-type: none"> 1. for loop works faster than a while loop. 2. All things that can be done using a for loop can also be done using a while loop. 3. for (; ;) implements an infinite loop. 4. for loop can be used if we want statements in a loop to get executed at least once. 5. for loop works faster than a do-while loop.

23	What will be the output of the following Programs?	
	a)	<pre> #include <stdio.h> int check (int); int main() { int i = 45, c ; c = check (i); printf ("%d\n", c); return 0 ; } int check (int ch) { if (ch >= 45) return (100); else return (10 * 10); } </pre>
	b)	<pre> #include <stdio.h> int main() { void slogan() ; int c = 5 ; c = slogan() ; printf ("%d\n", c); return 0 ; } void slogan() { printf ("Only He men use C!\n"); } </pre>
	c)	<pre> #include <stdio.h> void display() ; </pre>

		<pre> int main() { printf ("Learn C\n"); display() ; return 0 ; } void display() { printf ("Followed by C++, C# and Java!\n") ; main() ; } </pre>
	d)	<pre> #include <stdio.h> void fun (int, int) ; int main() { int i = 5, j = 2 ; fun (i, j) ; printf ("%d %d\n", i, j) ; return 0 ; } void fun (int i, int j) { i = i * i ; j = j * j ; } </pre>
	e)	<pre> #include <stdio.h> void fun (int *, int *) ; int main() { int i = 5, j = 2 ; fun (&i, &j) ; printf ("%d %d\n", i, j) ; return 0 ; } void fun (int *i, int *j) { *i = *i * *i ; *j = *j * *j ; } </pre>

	f)	<pre> # include <stdio.h> int main() { printf ("C to it that C survives\n"); main() ; return 0 ; } </pre>
	g)	<pre> # include <stdio.h> int main() { int i = 0 ; i++ ; if (i <= 5) { printf ("C adds wings to your thoughts\n") ; exit (0) ; main() ; } return 0 ; } </pre>
	h)	<pre> # include <stdio.h> int main() { static int count = 5 ; printf ("count = %d\n", count--) ; if (count != 0) main() ; return 0 ; } </pre>

	i)	<pre> #include <stdio.h> int g (int) ; int main() { int i, j ; for (i = 1 ; i < 5 ; i++) { j = g (i) ; printf ("%d\n", j) ; } return 0 ; } int g (int x) { static int v = 1 ; int b = 3 ; v += x ; return (v + x + b) ; } </pre>
	j)	<pre> #include <stdio.h> int main() { func() ; func() ; return 0 ; } void func() { auto int i = 0 ; register int j = 0 ; static int k = 0 ; i++ ; j++ ; k++ ; printf ("%d %d %d\n", i, j, k) ; } </pre>

	k)	<pre> #include <stdio.h> #define PRODUCT(x) (x * x) int main() { int i = 3, j, k, l; j = PRODUCT(i + 1); k = PRODUCT(i++); l = PRODUCT (++i); printf ("%d %d %d %d\n", i, j, k, l); return 0; } </pre>
	l)	<pre> #include <stdio.h> int main() { int num[26], temp; num[0] = 100; num[25] = 200; temp = num[25]; num[25] = num[0]; num[0] = temp; printf ("%d %d\n", num[0], num[25]); return 0; } </pre>
	m)	<pre> #include <stdio.h> int main() { int array[26], i; for (i = 0 ; i <= 25 ; i++) { array[i] = 'A' + i; printf ("%d %c\n", array[i], array[i]); } return 0; } </pre>

	n)	<p>If the following program (<i>myprog</i>) is run from the command line as</p> <pre>myprog friday tuesday sunday</pre> <p>what would be the output?</p> <pre>main (int argc, char *argv[]) { printf ("%c", (*++argv)[0]); }</pre> <p>A. m B. f C. myprog</p>
	o)	<pre>main() { struct emp { char *n; int age; }; struct emp e1 = { "Dravid", 23 }; struct emp e2 = e1; strupr (e2.n); printf ("\n%s", e1.n); }</pre>
	p)	<pre>main() { int x = 10, y = 20, z = 5, i; i = x < y < z; printf ("\n%d", i); }</pre> <p>A. 1 B. 0</p>

	q)	<pre> main() { int i = -3, j = 2, k = 0, m ; m = ++j && ++i ++k ; printf ("\n%d %d %d %d", i, j, k, m) ; } </pre>
	r)	<pre> main() { int i = -3, j = 2, k = 0, m ; m = ++i ++j && ++k ; printf ("\n%d %d %d %d", i, j, k, m) ; } </pre>
	s)	<pre> # include <stdio.h> int main() { int k ; float j = 2.0 ; switch (k = j + 1) { case 3 : printf ("Trapped\n") ; break ; default : printf ("Caught!\n") ; } return 0 ; } </pre>
