



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

AERONAUTICAL ENGINEERING

DEFINITIONS AND TERMINOLOGY QUESTION BANK

Course Name	:	PROGRAMMING FOR PROBLEM SOLVING
Course Code	:	ACSB01
Program	:	B.Tech
Semester	:	I
Branch	:	AERONAUTICAL ENGINEERING
Section	:	A, B
Course Faculty	:	Ms. A Jayanthi, Assistant Professor

COURSE OBJECTIVES:

The course should enable the students to:	
I	Learn adequate knowledge by problem solving techniques.
II	Understand programming skills using the fundamentals and basics of C Language.
III	Improve problem solving skills using arrays, strings, and functions.
IV	Understand the dynamics of memory by pointers.
V	Study files creation process with access permissions.

DEFINITIONS AND TERMINOLOGY QUESTION BANK

S.No	QUESTION	ANSWER	Blooms Level	CO	CLO	CLO Code
MODULE – I						
1	What will be the output of the C program? #include<stdio.h> int main() { int a = 1, b = 3, c; c = b << a; b = c * (b * (++a)--); a = a >> b; printf("%d",b); return 0; }	36	Remember	CO 1	CLO3	ACSB01.03
2	What will be the output of the C program? #include<stdio.h> int main() { int i = 5; int a = --i + --i + --i; printf("%d",a); return 0; }	8	Remember	CO 1	CLO5	ACSB01.05
3	What will be the output of the C program? #include<stdio.h> int main() {	-3	Remember	CO 1	CLO5	ACSB01.05

	<pre>int i = 5; int a = --i - --i - --i - --i; printf("%d",a); return 0; }</pre>					
4	<p>What will be the output of the C program?</p> <pre>#include<stdio.h> int main() { int a = 2, b = 2, c = 0, d = 2, m; m = a++ && b++ &&c++ d++; printf("%d %d %d %d %d",a, b, c, d, m); return 0; }</pre>	3 3 1 3 1	Remember	CO 1	CLO6	ACSB01.06
5	<p>What will be the output of the C program?</p> <pre>#include<stdio.h> int main() { int i = 5; int a = --i + ++i - i-- + --i; printf("%d",a); return 0; }</pre>	8	Remember	CO 1	CLO5	ACSB01.05
6	<p>What will be the output of the C program?</p> <pre>#include<stdio.h> int main() { int i = 5; int a = ++i + ++i + ++i; printf("%d",a); return 0; }</pre>	22	Remember	CO 1	CLO5	ACSB01.05
7	<p>What will be the output of the C program?</p> <pre>#include<stdio.h> int main() { int i = 5; int a = ++i + ++i + ++i + ++i; printf("%d",a); return 0; }</pre>	31	Understand	CO 1	CLO5	ACSB01.05
8	<p>What will be the output of the C program?</p> <pre>#include<stdio.h> int main() { int _ = 5; int=5; int___ = _ +; printf("%d",___); return0; }</pre>	10	Remember	CO 1	CLO5	ACSB01.05
9	<p>What will be the</p>	60	Understand	CO 1	CLO5	ACSB01.05

	<pre> output of the C program? #include<stdio.h> int main() { int num1 = 10, num2 = 20; int result; result = num1 * 2 + num2 * 2 ; printf("\nResult is :%d", result); return (0); } </pre>					
10	<pre> What will be the output of the C program? #include<stdio.h > int main() { int printf = 13; int c = 7 + printf; printf("%d",c); return 0; } </pre>	Compilation error	Remember	CO 1	CLO4	ACSB01.04
11	<pre> What will be the output of the C program? #include<stdio.h> int main() { int a = 7, b = 4, c = 2; printf("a b&c = %d\n", a b&c); return 0; } </pre>	7	Remember	CO 1	CLO4	ACSB01.04
12	<pre> What will be the output of the C program? #include<stdio.h> int main() { int a = 1, b = 3, c; c = b <<a; b = c * (b * (++a)--); a = a >> b; printf(" %d",b); return 0; } </pre>	36	Remember	CO 1	CLO4	ACSB01.04
13	<pre> What will be the output of the C program? #include<stdio.h> int main() { printf("%d",printf("cp rogram")); return 0; } </pre>	C program	Remember	CO 1	CLO6	ACSB01.06
14	<pre> What will be the output of the program if value 25 given to scanf()? #include<stdio.h </pre>	1	Remember	CO 1	CLO6	ACSB01.06

	<pre>> int main() { inti; printf("%d\n", scanf("%d", &i)); return 0; }</pre>					
15	<p>What is the output of following program?</p> <pre>#include <stdio.h> int main() { int a = 1; int b = 1; int c = a --b; int d = a-- && --b; printf("a = %d, b = %d, c=%d, d = %d", a, b, c, d); return 0; }</pre>	a = 0, b = 0, c = 1, d = 0	Remember	CO 1	CLO6	ACSB01.06
MODULE – II						
1	<p>Predict the output of following C program.</p> <pre>main() { int a = 300, b, c ; if (a >= 400) b = 300 ; c = 200 ; printf ("\n%d %d", b, c) ; }</pre>	0 200	Remember	CO 2	CLO7	ACSB01.07
2	<p>Predict the output of following C program.</p> <pre>main() { int a = 500, b, c ; if (a >= 400) b = 300 ; c = 200 ; printf ("\n%d %d", b, c) ; }</pre>	300 200	Remember	CO 2	CLO7	ACSB01.07
3	<p>Predict the output of following C program.</p> <pre>main() { int x = 10, y = 20 ; if (x == y) ; printf ("\n%d %d", x, y) ; }</pre>	10 20	Remember	CO 2	CLO7	ACSB01.07
4	<p>Predict the output of following C program.</p> <pre>main() { int x = 10, y = 20 ; if (x == y) printf ("\n%d %d", x, y) ; }</pre>	No ouput	Remember	CO 2	CLO7	ACSB01.07
5	<p>Predict the output of following C program.</p> <pre>main() { int x = 3, y = 5 ;</pre>	3 5	Remember	CO 2	CLO7	ACSB01.07

	<pre> if (x == 3) printf ("%d", x); else ; printf ("%d", y); } </pre>					
6	<p>Predict the output of following C program.</p> <pre> main() { int x = 3, y = 5 ; if (x == 3) printf ("%d", x); else printf ("%d", y); } </pre>	3	Remember	CO 2	CLO7	ACSB01.07
7	<p>Predict the output of following C program.</p> <pre> main() { int x = 3, y = 5 ; if (x == 3); printf ("%d", x); else printf ("%d", y); } </pre>	Error	Remember	CO 2	CLO7	ACSB01.07
8	<p>Predict the output of following C program.</p> <pre> main() { int x = 3, y = 5 ; if (x == 5) printf ("%d", x); else printf ("%d", y); } </pre>	5	Remember	CO 2	CLO7	ACSB01.07
9	<p>Predict the output of following C program.</p> <pre> main() { int x = 3, y = 5 ; if (x == 5) printf ("%d", x); else ; printf ("%d", y); } </pre>	5	Remember	CO 2	CLO7	ACSB01.07
10	<p>Predict the output of following C program.</p> <pre> main() { int x = 3 ; float y = 3.0 ; if (x == y) printf ("\nx and y are equal"); else printf ("\nx and y are not equal"); } </pre>	x and y are equal	Remember	CO 2	CLO7	ACSB01.07
11	<p>Predict the output of following C program.</p> <pre> main() { int x = 3 ; float y = 3.1 ; </pre>	x and y are not equal	Remember	CO 2	CLO7	ACSB01.07

	<pre> if (x == y) printf ("\nx and y are equal") ; else printf ("\nx and y are not equal") ; } </pre>					
12	<p>Predict the output of following C program.</p> <pre> #include<stdio.h> int main() { float x = 0.1; if (x == 0.1) printf("IF"); else if (x == 0.1f) printf("ELSE IF"); else printf("ELSE"); } </pre>	ELSE IF	Remember	CO 2	CLO7	ACSB01.07
13	<p>Predict the output of following C program. #include<stdio.h></p> <pre> int main() { double x = 0.1; if (x == 0.1) printf("IF"); else if (x == 0.1f) printf("ELSE IF"); else printf("ELSE"); } </pre>	IF	Remember	CO 2	CLO7	ACSB01.07
14	<p>Predict the output of following C program. #include<stdio.h></p> <pre> int main()i { int x = 0.1; if (x == 0.1) printf("IF"); else if (x == 0.1f) printf("ELSE IF"); else printf("ELSE"); } </pre>	ELSE	Remember	CO 2	CLO7	ACSB01.07
15	<p>Predict the output of following C program. int main()</p> <pre> { float x = 0.5; if (x == 0.5) printf("IF"); else if (x == 0.5f) printf("ELSE IF"); else printf("ELSE"); } </pre>	IF	Remember	CO 2	CLO7	ACSB01.07
MODULE – III						
1	<p>What will be the output of the program?</p> <pre> #include<stdio.h> int main() { </pre>	3, 2, 15	Remember	CO 3	CLO8	ACSB01.08

	<pre> int a[5] = {5, 1, 15, 20, 25}; int i, j, m; i = ++a[1]; j = a[1]++; m = a[i++]; printf("%d, %d, %d", i, j, m); return 0; } </pre>					
2	<p>What will be the output of the program?</p> <pre> int main() { static int a[2][2] = {1, 2, 3, 4 }; int i, j; static int *p[] = {(int*)a, (int*)a+1, (int*)a+2}; for(i=0; i<2; i++) { for(j=0; j<2; j++) { printf("%d, %d, %d, %d\n", *(*(p+i)+j), *(*(j+p)+i), *(*(i+p)+j), *(*(p+j)+i)); } } } </pre>	<pre> 1, 1, 1,1 2, 2, 2,2 2, 2, 2,2 3, 3, 3,3 </pre>	Remember	CO 3	CLO8	ACSB01.08
3	<p>What will be the output of the program?</p> <pre> #include<stdio.h> int main() { void fun(int, int[]); int arr[] = { 1, 2, 3, 4}; int i; fun(4, arr); for(i=0; i<4; i++){ printf("%d,", arr[i]); return 0;} void fun(int n, int arr[]) { int *p=0; int i=0; while(i++ < n) p = &arr[i]; *p=0; } } </pre>	1, 2, 3, 4	Remember	CO 3	CLO8	ACSB01.08
4	<p>What will be the output of the program?</p> <pre> #include<stdio.h> void fun(int**p); int main() { int a[3][4] = { 1, 2, 3, 4, 4, 3, 2, 8, 7, 8, 9, 0}; int *ptr; ptr = &a[0][0]; fun(&ptr); return 0; } void fun(int **p) { printf("%d\n", **p); } } </pre>	1	Remember	CO 3	CLO8	ACSB01.08
5	<p>What will be the output of the</p>	1, 1,1	Remember	CO 3	CLO9	ACSB01.09

	<pre> program? int main() { static int arr[] = {0, 1, 2, 3, 4}; int *p[] = {arr, arr+1, arr+2, arr+3, arr+4}; int **ptr=p; ptr++; printf("%d, %d, %d\n", ptr-p, *ptr-arr, **ptr); *ptr++; printf("%d, %d, %d\n", ptr-p, *ptr-arr, **ptr); *++ptr; printf("%d, %d, %d\n", ptr-p, *ptr-arr, **ptr); ++*ptr; printf("%d, %d, %d\n", ptr-p, *ptr-arr, **ptr); return 0; } </pre>	<p>2, 2,2 3, 3,3 3, 4,4</p>				
6	<p>What will be the output of the program if the array begins at 65472 and each integer occupies 2 bytes?</p> <pre> #include<stdio.h> int main() { int a[3][4] = {1, 2, 3, 4, 4, 3, 2, 1, 7, 8, 9, 0}; printf("%u, %u\n", a+1, &a+1); return 0; } </pre>	65480, 65496	Remember	CO 3	CLO9	ACSB01.09
7	<p>What will be the output of the program in Turb C (under DOS)?</p> <pre> #include<stdio.h> int main() { int arr[5], i=0; while(i<5) arr[i]=++i; for(i=0; i<5; i++) printf("%d, ", arr[i]); return 0; } </pre>	Garbage value, 1, 2, 3, 4,	Remember	CO 3	CLO12	ACSB01.12
8	<p>What will be the output of the program ?</p> <pre> #include<stdio.h> int main() { int arr[1]={10}; printf("%d\n", 0[arr]); return 0; } </pre>	10	Remember	CO 3	CLO12	ACSB01.12
9	<p>What will be the output of the program if the array begins at address 65486?</p> <pre> #include<stdio.h> int main() { int arr[] = {12, 14, 15, 23, 45}; printf("%u, %u\n", arr, &arr); return 0; } </pre>	65486, 65486	Remember	CO 3	CLO12	ACSB01.12
10	<p>What will be the output of the</p>	4	Remember	CO 3	CLO12	ACSB01.12

	<pre> program? #include<stdio.h> int main() { float arr[] = {12.4, 2.3, 4.5, 6.7}; printf("%d\n", sizeof(arr)/sizeof(arr[0])); return 0; } </pre>					
11	<p>What will be the output of the program if the array begins 1200 in memory?</p> <pre> #include<stdio.h> int main() { int arr[]={2, 3, 4, 1, 6}; printf("%u, %u, %u\n", arr, &arr[0], &arr); return 0; } </pre>	1200, 1200, 1200	Remember	CO 3	CLO10	ACSB01.10
12	<p>What will be the output of the following program ?</p> <pre> #include<stdio.h> #include<string.h> int main() { char str1[20] = "Hello", str2[20] = " World"; printf("%s\n", strcpy(str2, strcat(str1, str2))); return 0; } </pre>	Hello World	Remember	CO 3	CLO10	ACSB01.10
13	<p>What will be the output of the following program ?</p> <pre> #include<stdio.h> int main() { char p[] = "%d\n"; p[1] = 'c'; printf(p, 65); return 0; } </pre>	A	Remember	CO 3	CLO10	ACSB01.10
14	<p>What will be the output of the following program ?</p> <pre> #include<stdio.h> #include<string.h> int main() { printf("%d\n", strlen("123456")); return 0; } </pre>	6	Remember	CO 3	CLO10	ACSB01.10
15	<p>What will be the output of the following program ?</p> <pre> #include<stdio.h> int main() { printf(5+"Good Morning\n"); return 0; } </pre>	Morning	Remember	CO 3	CLO13	ACSB01.13
MODULE – IV						
1	#include<stdio.h> int main()	hello	Remember	CO 4	CLO14	ACSB01.14

	<pre> { char *p; p="hello"; printf("%s\n", *&*p); return 0; } </pre>					
2	<p>What is output of the following code?</p> <pre> #include<stdio.h> int main() { int i=3, *j, k; j = &i; printf("%d\n", i**j*i+*j); return 0; } </pre>	30	Remember	CO 4	CLO14	ACSB01.14
3	<p>What is output of the following code?</p> <pre> #include <stdio.h> int main() { int* pc, c; c = 22; pc = &c; printf("%d", *pc); return 0; } </pre>	22	Remember	CO 4	CLO14	ACSB01.14
4	<p>What is output of the following code?</p> <pre> #include<stdio.h> int main() { int x=30, *y, *z; y=&x; z=y; *y++=*z++; x++; printf("x=%d, y=%d, z=%d\n", x, y, z); return 0; } </pre>	x=31. v=504, z=504	Remember	CO 4	CLO14	ACSB01.14
5	<p>What is output of the following code?</p> <pre> #include<stdio.h> intmain() { int ***r, **q, *p, i=8; p =&i; q= &p; r = &q; printf("%d\n", ***r); return 0; } </pre>	8	Remember	CO 4	CLO14	ACSB01.14
6	<p>What is output of the following code?</p> <pre> #include<stdio.h> int main() { intarr[2][2][2] = { 10, 2, 3, 4, 5, 6, 7, 8}; int *p; p = &arr[1][1][1]; printf("%d\n", *p); return 0; } </pre>	8	Remember	CO 4	CLO14	ACSB01.14
7	<p>What is output of the following code?</p> <pre> #include<stdio.h> int main() { Int arr[3] = {2, 3, 4}; char *p; p = arr; p = (char*)((int*)(p)); </pre>	2	Remember	CO 4	CLO14	ACSB01.14

	<pre>printf("%d, ", *p); return 0; }</pre>					
8	<p>What is output of the following code?</p> <pre>#include<stdio.h> #include<string.h> int main() { int i, n;*x = x[n]; char *x="Alice"; n = strlen(x); for(i=0; i<=n; i++) { printf("%s ", x); x++; } printf("\n", x); return 0; }</pre>	lice ice ce e	Remember	CO 4	CLO14	ACSB01.14
9	<p>What is output of the following code?</p> <pre>void fun(int *p) { int q = 10; p = &q; } int main() { int r = 20; int *p = &r; fun(p); printf("%d", *p); return 0; }</pre>	20	Remember	CO 4	CLO14	ACSB01.14
10	<p>What is output of the following code?</p> <pre>#include<stdio.h> int main() { int a[3][4] = { 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 }; printf(" %u\n", *(a[0]+1)); return 0; }</pre>	2	Remember	CO 4	CLO14	ACSB01.14
11	<p>What is output of the following code?</p> <pre>#include<stdio.h> int main() { int i, a[] = {2, 4, 6, 8, 10}; change(a, 5); for(i=0; i<=4; i++) printf("%d, ", a[i]); return 0; } void change(int *b, int n) { int i; for(i=0; i<n; i++) *(b+1) = *(b+i)+5; }</pre>	2, 15, 6, 8, 10	Remember	CO 4	CLO14	ACSB01.14
12	<p>What is output of the following code? #include<stdio.h></p> <pre>char*strFun(void) { char *str="IncludeHelp"; return str;</pre>	IncludeHelp	Remember	CO 4	CLO14	ACSB01.14

	<pre> } int main() { char *x; x=strFun(); printf("%s",x); return 0; } </pre>					
13	<p>What is output of the following code?</p> <pre> #include <stdio.h> int main() { int a[][3] = { 1, 2, 3, 4, 5, 6 }; int (*ptr)[3] = a; printf("%d ", (*ptr)[1]); return 0; } </pre>	2	Remember	CO 4	CLO 14	ACSB01.14
14	<pre> #include<stdio.h> int main() { int arr[] = { 10, 20, 30, 40, 50, 60 }; int *ptr1 = arr; int *ptr2 = arr + 5; printf("%d.", (ptr2 - ptr1)); return 0; } </pre>	5	Remember	CO 4	CLO 14	ACSB01.14
15	<pre> int main() { int s[4][2] = { { 1234, 56 }, { 1212, 33 }, { 1434, 80 }, { 1312, 78 } }; int i, j; printf ("%d ", *(*(s + 2) + 1)); } </pre>	80	Remember	CO 4	CLO 14	ACSB01.14
MODULE – V						
1	<p>What is output of the following code?</p> <pre> #include<stdio.h> int main() { FILE *fp; char ch; fp=fopen("temp.text","w"); fprintf(fp,"%s","C is like a sea"); fclose(fp); fp=fopen("temp.text","r"); while(!feof(fp)) { ch=fgetc(fp); if(ch != 32) printf("%c",ch); } fclose(fp); return 0; } </pre>	Cislikeasea	Remember	CO 5	CLO16	ACSB01.16
2	<p>What puts() does when it writes to stdout</p>	Adds 'n' to the line written	Remember	CO 5	CLO16	ACSB01.16
3	<p>What is the purpose of the function?</p> <pre> Int ferror(FILE *fp) </pre>	They check for output errors	Remember	CO 5	CLO16	ACSB01.1 6
4	<p>stderr is similar to?</p>	stdout	Remember	CO 5	CLO17	ACSB01.1 7

5	What happens when we use? fprintf(stderr, "error:could not open file");	The diagnostic output is directly displayed in the output	Remember	CO 5	CLO19	ACSB01.1 9
6	Which function can be used to terminate the main function from another function safely?	exit(expr)	Remember	CO 5	CLO19	ACSB01.1 9
7	What is the size of array "line" used in fgets(line, maxline, *fp) function?	maxline	Remember	CO 5	CLO19	ACSB01.1 9
8	Which function has a return type as char pointer?	fgets()	Remember	CO 5	CLO19	ACSB01.19
9	Write the right declaration for fgets inside the library?	char *fgets(char *line, int maxline, FILE *fp);	Remember	CO 5	CLO19	ACSB01.1 9
10	What is the purpose of sprintf?	It writes the formatted data into a string	Remember	CO 5	CLO17	ACSB01.17
11	putchar(c) function/macro always outputs character c to the	standard output	Remember	CO 5	CLO17	ACSB01.17
12	<pre>#include <stdio.h> #include <stdlib.h> int main() { FILE *fp = stdout; int n; fprintf(fp, "%d", 45); }</pre>	45	Remember	CO 5	CLO18	ACSB01.18
13	What are stdout, stdin and stderr ?	File	Remember	CO 5	CLO19	ACSB01.19
14	What is space complexity of bubble sort?	The space complexity for Bubble Sort is O(1).	Remember	CO 5	CLO19	ACSB01.19
15	What puts() does when it writes to stdout	Adds 'n' to the line written	Remember	CO 5	CLO19	ACSB01.19

Signature of the Faculty

HOD, AE