2.5. Evaluation Process and Reforms Metric (2.5.1)

No.	Key Indicator- 2.5. Evaluation Process and Reforms Metric				
2.5.1.	Mechanism of internal assessment is transparent and robust in terms of frequency				
QIM	and mode				
	 Internal assessment tests are conducted by the institute's exam cell as per the academic calendar. The time tables, seating arrangements for internal tests are informed through circulars and displayed in notice boards well in advance. Once the examinations are conducted, the answer scripts of students are evaluated by concerned course instructor and distributed to the students. Answers to all the questions given in the examinations are discussed with students during the distribution of answer scripts. The system is made transparent by providing the scheme of evaluation and answer key to the students so that they verify the marks awarded and understand their mistakes committed by them in the examination. Grievances in the evaluation process made by the students are addressed and modifications of marks are carried out, if necessary. Answer scripts are verified by the HoD to ensure that there is no discrepancy in the evaluation. The internal test marks of the students are disseminated in the notice board to ensure transparency. The internal assessment and end semester examination marks are communicated to the parents through post and SMS. 				

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ONLINE EXAMINATION TIME TABLE AND DESCRIPTIVE TIME TABLE WITH SUBJECTS AND CODES





III B.TECH I SEM I MID EXAMINATION TIME TABLE FROM UNIVERSITY M.TECH I SEM TIME TABLE II MBA TIME TABLE

VIKAS COLLEGE OF ENGINEERING AND TECHNOLOGY



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DEPARTMENT OF CSE

MID EXAMINATION –II

Course Name & Code:	Programming for Problem solving using C & R201110	Faculty Name:	TPVV SRINIVASARAO
Year/ Semester:	I/I	Section:	CSE-A
Date & Duration:	2 ND FEB 2023 & 90 MIN	Max Marks:	15M

Answer all the following questions (Each question carries equal marks):

1. what is self-referential structure explain with example?	CO6	5M
L2		
2. Explain memory allocation functions with examples?	CO4	5M
L4		
3. What is function? Explain how arguments are passed?	CO5	5M
L3		

----- ALL THE BEST ------

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DEPARTMENT OF CSE

MID EXAMINATION –II

SCHEME OF EVALUTION FOR MID PAPER

Course Name & Code:	Programming for Problem solving using C & R201110	Faculty Name:	TPVV SRINIVASARAO
Year/ Semester:	1/1	Section:	CSE-A
Date & Duration:	2 ND FEB 2023 & 90 MIN	Max Marks:	15M

1.ANS KEY:

A self-referential structure is a structure that contains a pointer to a variable of the same type. This allows the structure to refer to itself, creating a linked data structure. Self-referential structures are a powerful tool for creating complex data structures in C++ and are commonly used in algorithms such as trees, graphs, and linked lists.

or example, consider the following code:

struct Node {

int data;

Node* next;

};

EX:

#include <stdio.h>

```
#include <stdlib.h>
struct node {
    int data;
    struct node *next;
};
```

```
int main() {
    // Create three nodes
    struct node *head = NULL;
    struct node *second = NULL;
    struct node *third = NULL;
```

```
head = (struct node*)malloc(sizeof(struct node));
second = (struct node*)malloc(sizeof(struct node));
third = (struct node*)malloc(sizeof(struct node));
```

```
// Assign data to each node
head->data = 1;
second->data = 2;
third->data = 3;
```

```
// Link the nodes together
head->next = second;
second->next = third;
third->next = NULL;
```

```
// Traverse the linked list and display its contents
struct node *current = head;
while (current != NULL) {
    printf("%d ", current->data);
    current = current->next;
}
return 0;
}
```

DEFINITION:1,EXAMPLE:4M

2.ANS KEY:

Dynamic Memory Allocation in C is a process in which we allocate or deallocate a block of memory during the run-time of a program.

There are four functions malloc(), calloc(), realloc() and free() present in <stdlib.h> header file that are used for Dynamic Memory Allocation in our system. It can also be referred to as a procedure to use Heap Memory in which we can vary the size of a variable or Data Structure (such as an Array) during the lifetime of a program using the library functions.

Dynamic Memory Allocation is considered as a very important concept in the field of Data Structures and is used in almost every Data Structures like Linked Lists, Stacks, Dynamic Arrays, Queue, etc.

Now, Let us see the definition, syntax and some examples of each library functions below.

C malloc() Method

malloc() is a method in C which is used to allocate a memory block in the heap section of the memory of some specified size (in bytes) during the run-time of a C program. It is a library function present in the <stdlib.h> header file.

Syntax of malloc()

General Syntax:

(cast-data-type *)malloc(size-in-bytes);

C calloc() Method

calloc() is a method in C which is also used to allocate memory blocks in the heap section, but it is generally used to allocate a sequence of memory blocks (contiguous memory) like an array of elements. It is also present in <stdlib.h> header file.

Syntax of calloc()

General Syntax:

(cast-data-type *)calloc(num, size-in-bytes);

C free() Method

free() as the name suggests is used to free or deallocate a memory block previously allocated using malloc() and calloc() functions during run-time of our program.

Syntax of free()

General syntax:

free(pointer);

C realloc() Method

realloc() is also a method in C that is generally used to reallocate a memory block, here re-allocate means to increase or decrease the size of a memory block previously allocated using malloc() or calloc() methods. It can also be used to completely allocate or deallocate a memory block on its own, we will see how to do it in the examples below.

Syntax of realloc()

General syntax : (cast-data-type *)realloc(ptr, new-size-in-bytes)

EXPLORING ALLOCATION TYPES:2M,SYNTAX FOR EACH :3M

3.ANS KEY:

A function is a block of statements that can perform a particular task. As we all know, there is always at least one function in C, and that is main().

Example

In the example below, the function's name is sum and the data type is int. This task of this function is to produce the sum of two numbers:

```
int sum(int a,int b)
{
    return(a+b);
}
Below, the function is declared in main():
void main()
{
    int sum(int,int); //function declaration
    int x=5,y=6;
    total = sum(x,y);
}
```

Formal parameters and actual parameters

When we call a function in main() or anywhere else in the program, and the function we created needs parameters, we would pass parameters to it while calling the function. In the example above, we passed variables x and y to obtain the sum of x and y.

Function categories

There are 4 types of functions:

1. Functions with arguments and return values

This function has arguments and returns a value:

#include <stdio.h>

void main()

{

```
int sub(int,int); //function with return value and arguments
 int x=10,y=7;
 int res = sub(x,y);
 printf("x-y = %d",res);
}
int sub(int a, int b) //function with return value and arguments
{
 return(a-b); // return value
}
2. Functions with arguments and without return values
This function has arguments, but it does not return a value:
#include <stdio.h>
int main()
{
 void sum(float,float); //function with arguments and no return value
 float x=10.56,y=7.22;
 sum(x,y);
}
void sum(float a, float b) //function with arguments and no return value
{
 float z = a+b;
 printf("x + y = \%f",z);
}
```

3. Functions without arguments and with return values

This function has no arguments, but it has a return value:

```
#include<stdio.h>
int main()
{
    int sum();
    int c = sum();
    printf("Sum = %d",c);
}
int sum() //function with no arguments and return data type
{
    int x=10,y=20,z=5;
    printf("x = %d ; y = %d ; z = %d \n",x,y,z);
    int sum = x+y+z;
    return(sum);
}
```

4. Functions without arguments and without return values

This function has no arguments and no return value:

```
#include<stdio.h>
int main()
{
    void sum();
    sum();
}
void sum() //function with no arguments and return data type
{
    int x=15,y=35,z=5;
    printf("x = %d ; y = %d ; z = %d \n",x,y,z);
}
```

```
int sum = x+y+z;
printf("Sum = %d",sum);
}
```

EXPLORING FUNTION ARGUMENTS:2M, EXAMPLE FOR EACH:3M