GLOBAL

Institute of Engineering & Technology

Approved By AICTE, Affiliated TO JNTUH EAMCET CODE: GLOB

AN AUTONOMOUS INSTITUTION

Sl No. : 2365

PART - I

Signature of the Controller of Examinations

Signature of the Invigilator with date

10/01/2025
Signature of the Student with date

Program : B.TECH

Hall Ticket No. : 24U61A0106

Name : BODA ANJI

Examination : I SEMESTER (GR 24) - II MID TERM

Month-Year : JANUARY 2025

Branch : CIVIL ENGINEERING

Course Code : CS104ES

Course Name : Problem Solving through C

Date of Exam : 10/01/2025

College Code : U6

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Month-Year : JANUARY 2025

Descriptive Question-wise Marks												Descriptive Total (20M)	Objective Total (10M)	Grand Total
Q1 (5M)		Q2 (5M)		Q3 (5M)		Q4 (5M)		Q5 (5M)		Q6 (5M)				
A	B	A	B	A	B	A	B	A	B	A	B			
Assignment (5 M)														
PPT / Seminar / Viva (5 M)														

Name of the Evaluator	
Signature of the Evaluator	

Remarks

INSTRUCTIONS TO STUDENTS

1. The Answer Booklet contains 8 pages. Ensure all the 8 pages are in proper order.
2. Candidate must verify the details of particulars in the PART - 1 i.e Name, Hall Ticket No., Examination, Course Name, Course code etc.,
3. In case of any deviation in the above or if the PART - 1 is torn / damaged, report to the invigilator and return the damaged booklet .
4. You are prohibited from writing on or tampering the PART-1 except affixing the signature and serial number of last page written in the space provided.
5. Student is prohibited from:
   i. Writing their Hall Ticket No. and name in any part of the answer booklet.
   ii. Addressing the examiner in any manner whatsoever in the answer booklet. If they do so, their script will not be valued.
   iii. Writing religious symbols.
   iv. Either seeking or providing any assistance to the fellow students in the examinations.
   v. Possessing a manuscript or a printed matter, in any form, in the examination hall.
   vi.Bringing Mobile Phones / Cameras / Bluetooth Devices / Programmable calculators or any electronic gadgets.
6. Violation of the above instructions will be viewed as a case of malpractice, which is punishable offence.
7. Before beginning to answer any question, the students should write the correct number of that question in the margin provided. Answers written at different places for the same question will not be valued.
8. The students should write the answers, within the margins provided on both sides of the paper and on all the lines of each page. It is not necessary to begin each answer in a fresh page. Answers must be legibly written with blue or black pen.
9. Do not write anything except Question Number in the margin.
10. No loose sheets of papers will be allowed in the examination hall. No paper must be detached from or attached to the answer booklet except graph sheet.
11. Strike off all unused pages.
12. NO ADDITIONAL ANSWER BOOKLETS/SHEETS WILL BE SUPPLIED.

Objective Type Answers

Multiple Choice

1) [A]
2) [C]
3) [A]
4) [C]
5) [B]
6) [A]
7) [B]
8) [B]
9) [A]
10) [B]

Fill in the Blanks

11) ~~r = read ; w = write ; a = append~~
12) r = read ; w = write ; a = append
13) sub ~~task~~ task
14)
15) calloc ( )
16) malloc ( )
17)
18) linear search and Binary search
19)
20)

Q.No.

Level

Subjective Exam:

6.→

Algorithm of the Bubble sort

* It compare with Given elements to an array.
* It will set to be small to greater values.
  from the given values
* when i>n is it the element is small and the element is greatter than set will cawp the number.
* all the elements are in the order the Bubble sort will ran ~~seseen~~ succeus full.
* Bubble sort has a time complexity of in the worst and average cases.

Example:

```
#include <stdio.h>
#include <conio.h>
    void main ( )
int (i, a, i ... temp);
{
printf ( "element of an array");
 scanf ("%d, &n);
printf ("enter the size of array");
  if ( i=0; i<n ; i++);
  {
  printf ( "Bubble sorting");
  scanf ("%d, a[i]);
```

```
for(i=0; i<n-1; i++);
{
for(j=0; j<n-1; j++);
{
a[i] > a[j];
a[j] > temp;
temp > a[j];
}
printf("%d; Bubble sort");
}
}
```

5. Binary search

Example :-

```
#include <stdio.h>
#include <conio.h>
  void main( )
{
```

Q.No.

Level

```
int (mid, Count =0, a[ ]
 scanf ("%d ; &n");
 printf ("enter array element");
 for (i = 0; i<0 ; i++);
 {
 scanf("%d", &a[i]");
 }
 mid
printf ("enter any element");
scanf ("%d , & a[i]");
 if (key = = a(imd));
{
printf ("element & found at index "%d"a(mid);
 scanf("%d;&a[i]");
  else if ( key<a [mid]);
  {
 for ("i=0 ; mid<i; i++");
  {
 If (key =a [i]);
 Print f(element found at index %d");
   Count++;
  else if ('key > i(mid);
 {
 for (i-mid +i<n ; i++);
 {
 if (key = = a[i]);
```

Level

```
    }
int Count = 0
    }
    }
```

3) Recursion :- A recursion function performs the tasks by dividing it into the sub tasks. There is a terminati -on condition defined in the function which is satisfied by some specific substances.

Recursion is the process which comes into existance when a function calls a copy of itself to work on a smaller problem. Any functions which calls itself is called recursive function calls.

* Recursion involves several no of recursive calls. however, it is important to impose a termination condition of recursion.
* Recursion code is shorter than iteractive code forever it is difficult to understand.
* Recursion can't be attend applied to all the problem but it is more usefull for the tasks that can be defined in terms of similar substances. for example, Predursion may be applied to sorting, searching and traversal problem.

① Pass by value :- prarameters passing in this method copies value from actual parameter into formal function parameter. As a result any changes

made inside the function do not reflect in the caller's parameters.

Example :- #include <stdio.h>

② pass by reference :- The calle's actual parameter and the function actual parameter refer to the same conditions, So any changes made inside the function are reflected in the calle's actual parameter.

* In call by reference the address of the variable is passed into the function callas the actual parameter

* In call by reference, the address of the ~~var~~ variable. is passed into the function call as the actual parameter

2 i) a+ :- (appened plus) it is in the modes it can be added read and record added at the end of file

Syntaxe :-

fopen ("data.txt", "a+")

ii) r+ :- (read plus) in this mode in seerchase of the file to read and write and records of the file is not open so the new file is open

Syntax :-

f open ("data txt", "r+");

iii) write + :-(write plus) In this mode wt read and write the file. the file is not existing then compiler returns null to the fill pointer then new file is opend

Q.No.

Level ..

Syntax :-

fopen("data".txt."w")

Q.No.

Q.No.

Q.No.

Q.No.