Mid Semester Examination-2022

Time: 1 Hr 30 Min.   Full Marks: **20**

Subject: **Compiler Design.**   Semester:5th(CSE)

Instructions: -

- The marks for each individual bit are mentioned in the right column.
- The right most column represents the course outcome for the respective question.

Q.No.	Answer all 4 Questions from below: -	Marks	Course Outcome
01.	Check the given grammar is LL(1), LR(0),SLR(1),CLR(1),LALR(1). (You can skip the common items) S->dA | aB A-> bA|c B-> bB | c	10	CO-1
02.	Check the string acceptance by LL(1) and LR(0) parsers. w=id+id*id+id. E-> E+E | E*E | (E) | id	04	CO-2
03.	Discuss three address codes and its types. Write three address codes for the expression: (a*b)+(c+d)-(a+b+c+d)	03	CO-3
04.	**Write short notes-** a) Linker & Loader b) Syntax tree c) DAG	03 × 1=03	CO-4

*****All the Best! *****

UNIVERSITY COLLEGE OF ENGINEERING AND TECHNOLOGY

MID-SEMESTER EXAMINATION

SUBJECT – DBMS(09/03/2022)

BRANCH – CSE

Full Marks – 20

SEMESTER – 5th

Time – 90 Mins

Answer any Four Questions

Q1. Explain three levels of data abstraction and data independence.   (5 Marks)

Q2. Describe the types of keys with examples.   (5 Marks)

Q3. Explain integrity rules and ER diagram.   (5 Marks)

Q4. What is Generalization and its constraints?   (5 Marks)

Q5. Find all possible Superkeys, Candidate keys, prime attributes, and the highest normal form of a relation R(A,B,C,D,E) with FD set as { BC->D, AC->BE, B->E }.   (5 Marks)

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BTech 5th SEM   Mid SEM   Time: 90 Mins   Date: 10-Mar-2022

All questions are compulsory. Total Marks 20.

1. Define the life cycle methods of servlet.(1M)

2. Define session and cookie.Write the differences between sessions and cookies.(1M)

3. What are the advantages of servlets over CGI? (1M)

4. Write key difference between static web page and responsive web page. (1M)

5. What is CSS? What are the different methods to include CSS code in HTML file. (1M)

4. Create a user registration form using HTML with the following fields: First Name, Middle Name, Last Name, Gender(Male/Feamle), Contact Number, E-Mail ID, Submit button and a Reset Button. Handle this form using PHP. (5M)

OR

5. What is JSP? What are the advantages of JSP over servlet (write at least 3 differences). Explain the lifecycle of JSP Page with diagram. Create a simple JSP page. (1M + 1M + 2M + 1M)

6. What is a function? Write neatly about the categories of functions with examples in JavaScript. (1M + 4M)

OR

7. Write a script to print Fibonacci series using JavaScript. (5M)

8. What are HTTP GET & PUT requests? Wrie an example program by using them. (2M + 3M)

OR

9. What is HTML DOM? Draw the detailed DOM objects structure. Explain with its usage. (1M + 2M + 2M)

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Hazaribag , Sub.– PPL (CSE)

BTech 5ᵗʰ SEM   Mid SEM   Time: 90 Mins   Date: 08-Mar-2022

All questions are compulsory. Total Marks 20.

1. Which of the following are datatype(s) used in C, C++ or Java Programming Language?
a) Character b) String c) Long integer d) Unsigned integer e) Integer [1 Mark]

2. Differentiate between while and do-while looping statements. Write at most 2 difference. [1 Mark]

3. Consider the statement below regarding Deterministic and Non-deterministic Loop.
"The number of iterations in Deterministic loop are known in advance or no of loops are predictable prior to the initialization of loop. Whereas a Non-deterministic loop is driven by the response of a user, hence iterations cannot be easily predicted."

Write the type of Loop (Deterministic Loop or Non-deterministic Loop) for the program below.

a) int num = getConsoleInt("How many Lines? ");

```
while(num > 0){
    System.out.println("I Love Programming");
    num--;
}
```

b) int num = getConsoleInt("How many Lines? ");

```
for(int i = 0; i < num; i++){
    System.out.println("I must stay awake during exam time");
}
```
[1 Mark]

4.
```
#include<stdio.h>
int main(void){
    int num = scanf("%d", &num);

    if( num > 0 )
        num %= 10;

    if( num > 0 )
        num /= 10;

    printf(num);
}
```

What is the output of the program for any (a) num > 0 (b) num < 0 [1 Mark]

5. Demonstrate a simple program using pointer and also take an input and find the output using dry run. [1 Mark]