1. **MCQ**
2. **Subjective**

**2.1 Basic Refreshers**

1. Explain SDLC process.
2. Declare an unsigned char array by the name frame data, and print the array elements.
3. Explain bit-wise operators with examples.
4. Explain both pre and post-increment and decrement operations.
5. Explain the logical operators with short-circuiting. (Give examples)
6. List the Difference b/w while, do-while, and for loops
7. What is the size and range of all datatypes present in c
8. Which loop runs fast between while(1) and while(1+2+3)? Explain

**2.2 1D Pointers**

1. Define Void, Null, Dangling, and Wild pointers with examples. [June - 2023]
2. What is meant by Pointers and the size of all pointers?
3. Explain Const pointers with an example.
4. Explain Call by value call by reference with Examples [June - 2023]

**2.3 Stdio**

**2.4 Storage classes**

1. Explain static local and static global.
2. Explain auto, extern, and register keywords with an example
3. Explain the Compilation stages.
4. Explain the memory segments in detail.

**2.5 2D pointers and DMA**

1. Explain Multilevel pointers with examples
2. Explain the Function pointer with an example

**2.6 Preprocessing**

1. How do you obtain the outputs of different stages of compilation?
2. What are the different compiler flags that you know?

**2.7 UDT**

1. What is the difference between structures and unions?
2. Define a structure. How do you access each member of the structure? What is the size of the Empty structure?
3. What is padding? How to remove padding? Who manages padding?
4. What is structure padding? Can we simply rearrange the members of the structure to reduce padding?
5. Explain the difference between a Structure and an Array.
6. What is an array of structures and how is the value assigned to that array of structures also by using a pointer assign value to that array of structures?

**2.8 Files**

1. **Programming**
2. Write a program to obtain the greatest among 3 numbers.
3. Write a program to check if the nth bit of a number is set or not.
4. Write a program to swap two integers
5. Write a program to reverse the string [June - 2023]
6. Write a code to fetch each word from the file and compare it with the input word.
7. WAP to implement strcmp function.