

COMPUTER PROGRAMMING USING C

UNIT WISE QUESTION BANK

Short Answer Questions

UNIT I:

1. Define number system? What are the different types of number systems?
2. Convert the following $(2546)_{10} = (?)_8$
3. Define expression?
4. What is an operator? Name any 2 categories of operators that are available in C.
5. Convert the following binary number to decimal number
1101102
6. What is a variable? List out how the variables are declared in C?
7. Define an algorithm? List out the characteristics of an algorithm?
8. Illustrate briefly about repetition loops?
9. Distinguish between continue, goto, break statements with example?
10. Define high level language over machine language? Explain advantages and disadvantages.

UNIT II:

1. List out different storage classes?
2. What is meant by searching? What are the different types of searching?
3. Define an array? How to declare an array?
4. What is meant by searching? What are the different types of searching?
5. Define an array? How to declare and initialize an array?
6. Explain about parameters passing methods?
7. Define an array? How do we calculate the size of an array?
8. What is recursive function?
9. Elucidate queue operations.
10. List down the limitations of recursion?

UNIT III:

1. Write the syntax for declaring a user-defined function.
2. Define a Pointer? Write the syntax for initialization of a pointer?
3. Define string? Write the syntax for declaring a string?
4. List any five string handling functions and their meanings?
5. What is double pointer?
6. Explain the usage of realloc()?
7. Define pointer? Explain about pointer to pointer?
8. What is a string? Illustrate briefly about strcat(),strcpy() functions?
9. Explain Inter-Function communication

UNIT IV:

1. Define a structure? Write the syntax for declaration of a structure?
2. What are the different memory allocation functions?
3. What are command line arguments? Write the syntax for it.
4. Demonstrate the usage of 'typedef'
5. What are command-line arguments?
6. Define complex structure?
7. Explain array of structures?
8. What is bit-field?
9. Write about Nested structures.

UNIT V:

1. Define a FILE? What are the types of files?
2. List file error handling functions with syntaxes.
3. List any 2 differences between text file and binary file
4. What is the use of rewind ()?
5. Distinguish between text files and binary files?
6. Explain fseek().
7. What is pre-processor commands
8. Explain rewind() function?

Long Answer Questions

UNIT I:

1. What are the different types of operators used in C language?
2. Briefly discuss about looping or iterative statements?
3. What is meant by a control statement? What are the different types of control statements available in C?
4. Explain about different computer languages with an example.
5. a) Define an Algorithm? explain the characteristics of an algorithm
b) Write a C program to find Fibonacci of a given number using while
6. Explain about control statements?
7. Explain control statements in detail with suitable examples.
8. Convert the following to hexadecimal, octal and binary?
(1228)₁₀, (1213)₂, (2124)₂, (2028)₁₀,

UNIT II:

1. Define searching? Illustrate linear search with an example.
2. Define an array? Explain about different types of arrays in C with an example.
3. Define a function. What are the different types of functions based on the arguments passed to it?
4. What is meant by Call-by-reference? Demonstrate it using a C program.
5. a) Distinguish between Linear search and Binary search
b) Define multi dimensional array with suitable example?
6. Explain about LIFO with a sample program.
7. Write a c program to perform matrix multiplication?
8. Explain inter function communication with suitable example?
9. Write a C program to find the GCD of two numbers using recursion
10. Elaborate Binary search technique with an example.

UNIT III:

1. Briefly discuss about storage classes with an example program.
2. Write a C program to check whether a given string is palindrome or not?
3. Write a C program that demonstrates string I/O functions.
4. How pointers are useful for inter-function communication? Demonstrate a C program on it.
5. What are the different memory allocation functions supported in C? Explain each of them with an example.
6. a) What is an array of pointer? How it is declared and initialized an array of pointers?
b) Explain pointers to functions in detail?
7. What are the string manipulation functions? Explain their usage.
8. Explain briefly about dynamic memory allocation with suitable examples?
9. Illustrate briefly about strlen(), strrev(), strcat(), strlwr(), strcpy(), functions with suitable examples?
10. Write a c program that Provide the function to count the number of vowels in the given string?

UNIT IV:

1. Explain the following with example a) pointer to structures b)self-referential structure.
2. Define structure? Write the syntax for declaring a structure? Briefly explain how to access the members of a structure.
3. Write about the following
 - a. Nested structures.
 - b. Bit fields.
4.
 - a) Explain self referential structures with a sample program.
 - b) Explain about bit fields with suitable example.

5. Explain in detail about command line arguments and preprocessor commands with suitable examples
6. a) Explain about structures with an example?
b) Explain briefly about preprocessor directives.
7. a) Explain nested structure with suitable example?
c) Explain unions with suitable example?
8. Explain the concept of array of structures?
9. Write a program to handle students profile data using structures.

UNIT V:

1. Explain about the file positioning functions in C.
2. Write a C program to display the content of a file on standard output.
3. Write a C program to merge two files into a third file.
4. What are the different file I/O operations? And demonstrate them with an example program.
5. What is meant by a binary file? Discuss about file positioning functions?
6. Explain the file input and output functions with example program?
7. Illustrate briefly about file I/O functions?
8. Define file? Explain in detail about streams?