

Question Bank

B.Sc. I Computer Science (Optional) (Sem. -II)

BCST201 Course III: C Programming – II

2 Marks

- 1) Define pointer.
- 2) Write down the basic file operations?
- 3) Which purpose realloc() function is used?
- 4) What is dynamic memory allocation?
- 5) Explain printf() and scanf().
- 6) Write the syntax for structure.
- 7) How can we declare a pointer?
- 8) Which purpose malloc() function is used?
- 9) List the preprocessor directives.
- 10) Define: Union
- 11) What is mean by union?
- 12) How can we declare a structure?
- 13) For what purpose does fopen() and fclose() functions are used?
- 14) List the type of macros.
- 15) Define: preprocessor.
- 16) What is Flowchart.
- 17) what is usage of the pointer in c?
- 18) Is that possible to add pointers to each other?
- 19) What are the advantages of structure in c?
- 20) Which library function used to read a file?
- 21) What is Error Handling in c?
- 22) Explain declaration strlen() function with syntax and example.
- 23) Which library function used to write file?
- 24) Explain Arrays within Structures with example.
- 25) Write a program to addition of two numbers using macros.

10 Marks

- 1) Explain the terms call by value and call by reference in brief with suitable example.
- 2) Discuss structure with its syntax. Give suitable example.
- 3) Write short note on random access operations to files.
- 4) Define a file. Explain how to open and close a file with example.
- 5) What is pointer? Explain pointer to variable and pointer to pointer.
- 6) Explain array of structure with its syntax. Give suitable example.
- 7) Describe dynamic memory allocation functions with suitable examples.
- 8) What is structure and How to define and declare it. Give an example.
- 9) Explain free() and realloc() functions in brief.
- 10) What is looping process? Explain Do While loop in C with suitable example.
- 11) Explain dynamic memory deallocation with suitable example.
- 12) Explain any two Conditional compilation directives with example.
- 13) Write a C program to swap two variable using pointers.
- 14) What is pointer arithmetic? Explain any one valid operation performing on pointer.
- 15) Explain the term self-referential structure.

4 Marks

- 1) Write down the difference between structure and union.
- 2) Which functions are used to read and write to a file? Explain any one.
- 3) Explain pointer and function with suitable example.
- 4) Describe the #pragma startup and #pragma exit in brief with an example.
- 5) What are the different ways to define strings in c preprocessor?
- 6) Write short note on call by value.
- 7) List the input/output operations performed on file. Explain any one in brief.
- 8) Explain #define and #undef directives with an example.
- 9) Describe getch() and putc() functions in detail with example.
- 10) Write down an example for swapping two numbers using pointer.
- 11) Explain #ifdef, #else and #endif directives with example.
- 12) Write short note on file inclusion directives.
- 13) Write short note on call by reference.
- 14) What is mean by nested preprocessor directive? Explain with an example.
- 15) Describe the operation 'incrementing the pointer' with an example.
- 16) Explain #ifndef and #else in brief with an example.
- 17) Write down the difference between structure and union.
- 18) Write a program to calculate area of circle and area rectangle using pointer.
- 19) Explain fseek() function with its syntax.
- 20) Explain various file opening modes with an example.
- 21) Explain syntax of creating user defined functions.
- 22) What is pointer arithmetic?
- 23) Explain Application of Union.
- 24) Write syntax pointer to structure with explanation.
- 25) What is File handling in c and write advantages of file handling.
- 26) Difference between an uninitialized pointer and a null pointer?
- 27) What is Character Strings in C?
- 28) Explain command line arguments in file handling.
- 29) What is recursion? Explain with example.
- 30) Explain the structure within structure with example.

B.Sc. I Computer Science (Optional)
(Sem. -II)
Relational Database Management System (BCST 202)
Question Bank

[2 Marks]

- 1) Explain the term B+ tree organization.
- 2) Define Primary index in detail.
- 3) Define Primary key.
- 4) List the types of keys.
- 5) What is foreign key?
- 6) Explain candidate key.
- 7) List the types of index
- 8) Define data dictionary.
- 9) What is cluster index
- 10) List the methods of concurrency control?
- 11) Justify storage structure in DBMS.
- 12) State any four rules of sub query.
- 13) What is automated recovery?
- 14) What is full join?
- 15) Write down the advantages of functional dependency.
- 16) Define the functional dependency.
- 17) List all the file organization types.
- 18) Justify the term view.
- 19) Define data dictionary.
- 20) Write advantages of normalization.
- 21) Explain the deadlock detection and deadlock prevention.
- 22) Define Non Clustered index.
- 23) List the advantages of RDBMS
- 24) Enlist the types of normalization
- 25) What is BCNF.

[10 Marks]

- 1) Explain file organization. Describe sequential and cluster file organization.
- 2) Describe the join with its types.
- 3) Define file, what are the operations that can be performed on files?
- 4) Explain view with its types.

- 5) Explain any five SQL clauses with example in detail.
- 6) Describe the locking techniques in DBMS.
- 7) What is normalization? Explain 3NF and 3.5NF in detail with suitable example.
- 8) What is mean by lock? Explain lock granularity of concurrency control.
- 9) Describe the optimistic methods of concurrency control.
- 10) Explain 1NF with an example.
- 11) Describe view in brief.
- 12) What is meant by ACID properties in DBMS?
- 13) Explain 2NF with an example.
- 14) Explain sequential file organization.
- 15) Explain Hash file organization.

[5 Marks]

- 1) What is right join? Describe in brief.
- 2) Define sub query in detail.
- 3) Define the types of failure.
- 4) Justify cluster file organization.
- 5) Write PL/SQL program to find factorial of any number.
- 6) Describe logical and physical schema in brief.
- 7) Justify the term left join with an example.
- 8) What is mean by deadlock? Explain with suitable example.
- 9) Describe binary locking in detail.
- 10) Explain the term normalization.
- 11) Discuss cursor in brief.
- 12) What is database schema?
- 13) What is cluster file organization explain with an example.
- 14) Explain transaction and concurrency control in brief.
- 15) Explain the properties of transaction.
- 16) Create a table for storing employee details, and fetch the data using join query.
- 17) Create a view for customer table, Insert the records and delete the view.
- 18) Explain trigger with an example.
- 19) What is explicit cursor and implicit cursor.
- 20) Write the syntax for inner join, explain with an example.
- 21) Describe left join with suitable example.
- 22) What is database recovery? Explain in brief.
- 23) What is subquery? Create a table for clients and fetch the data of them for the city using subquery.
- 24) Explain the clauses in brief.
- 25) Explain serializability.

- 26) Explain Locking methods of concurrency control.
- 27) Describe deadlocks in brief.
- 28) Explain optimistic methods.
- 29) Describe operations on files.
- 30) Explain heap File organization.