**Part - C**

**Answer any *FOUR* questions. Each question carries *THREE* marks 03X04=12**

1. **This question from chapter 1 i.e Typical configuration of computer**

* Explain the different I/O port in computers
* What is port? Explain serial port?
* What is UPS? Explain the types of UPS?
* What is the purpose of UPS? Explain the function of UPS?
* What is mother board? Explain the types?
* What is mother board? Explain the general structure of mother board?
* Explain the different characteristics of motherboard?
* What is the purpose of ports, buses & controllers in the I/O system?
* What is cache memory? Explain the types?
* What is function of data bus, address bus & control bus?
* What is bus? Mention the different function of bus?
* What is bus? Mention the types of bus?
* Explain any three component of mother board?
* What is port? Explain serial & parallel port in detail?
* What is slots? Explain any three slots in mother board?
* What is USB port? Mention the features of USB port?
* What is plug & play device? Explain the features?
* Explain the different types of power supply?
* Write the difference between RAM & ROM
* Write the difference between primary memory & secondary memory?
* What is DRAM? Explain the types?

1. **This question from chapter 3 i.e Logic Gates/Boolean algebra**

* Construct/ Derive Basic gate using NAND gate only?
* Realize AND, OR & NOT gate using NOR gate?
* What is principle of duality? give the dual form of 1+X = 1
* Write the standard circuit symbol/ Logic diagram & truth table of 3 input XOR gate?
* Write the standard circuit symbol/ Logic diagram & truth table of 2 input XNOR gate?
* Write the standard circuit symbol/ Logic diagram & truth table of 2 input XOR gate?
* Write the standard circuit symbol/ Logic diagram & truth table of 3 input XNOR gate?
* What is basic gate? Explain with standard symbol & truth table for it?
* What is universal gate? Explain with standard symbol & truth table for it?
* Construct logic diagram & truth table for AND & NOT operation?
* Construct logic diagram & truth table for OR & NOT operation?
* Write the standard circuit/ Logic diagram symbol & truth table of AND gate?
* Write the Logic diagram/ standard circuit symbol & truth table of OR gate?
* Write the Logic diagram /standard circuit symbol & truth table of NAND gate?
* **“ OR ”** Explain the working of 2 input NAND gate with logical symbol & truth table?
* Write the / Logic diagram standard circuit symbol & truth table of NOR gate? **“OR”** Explain the working of 2 input NOR gate with logical symbol & truth table?

1. **This question from chapter 4 i.e Data structure**

* Explain the operation performed on non primitive data structure?
* Explain the operation performed on primitive data structure?
* Explain the different applications of array?
* Explain any three application of stack?
* Explain the types of linked list?
* What is stack? What are the operation performed on stack?
* What is queue? What are the operation performed on queue?
* What is traversal in an array? Write an algorithm for traversal of an element in an array?
* Explain the memory representation of 2 dimensional array?
* Explain the memory representation of 1 dimensional array?
* Explain the memory representation of 2 dimensional array using column major order?
* Explain the memory representation of 2 dimensional array using row major order?
* Explain the different operation performed on linked list?
* What is stack? Write a brief note on stack?
* What is queue? Write a brief note on queue?
* Write an algorithm for PUSH operation in stack **“OR”** write an algorithm for insert an element into stack?
* Write an algorithm for POP operation in stack **“OR”** write an algorithm for delete an element from stack?
* Explain the memory representation of stack using array concept?
* What is queue? Mention the types of queue?
* What is linked list? Mention the different types?
* What is stack? Mention the different application of stack?
* What is queue? Write the application of queue?
* What is linked list? Explain any one?
* Write an algorithm for insert an element into array?
* Write an algorithm for delete an element from array?
* Write an algorithm for insert an element into queue **“OR”** write an algorithm for enqueue()operation in queue?
* Write an algorithm for delete an element from queue **“OR”** write an algorithm for dequeue()operation in queue?
* What is primitive data structure? Mention the different operation that can be performed on primitive data structure?
* What is non primitive data structure? Mention the different operation that can be performed on non primitive data structure?
* What is one dimensional array? Mention the different operation that can be performed on one dimensional array?
* What is array? Explain the types of array?
* Write the difference between linear search & binary search?
* What is array? Write the disadvantages of array?

1. **This question from chapter 11 i.e Pointers**

* Write the difference between static & dynamic memory allocation?
* What is pointer? What are the advantages of pointer?
* Explain briefly about dynamic memory allocation in pointers?
* Define pointer? Write the syntax & example for pointer declaration?
* What is array of pointer ? give an program example?
* What is the use of new & delete operator in pointers?
* Define a)pointer b)dynamic memory allocation c)static memory allocation
* What are the different operation performed on pointers?
* What is pointer? Give the declaration & initialization of pointer
* Explain the relationship between array & pointers?

1. **This question from chapter 12 i.e data file handling**
   * + What is stream? Explain the different stream in C++?
     + Discuss any three file mode in C++?
     + Explain any three file opening mode?
     + What is the use of following function a)get() b)getline() c)read()
     + Mention the types of data files? Explain any one?
     + What is text file explain in detail?
     + What is binary file explain in detail?
     + What is file? Write the difference between text file and binary file?
     + Give the meaning of following function a)put() b)get() c)getline()
     + List the different modes for opening a file with syntax and meaning?
     + Explain with syntax for member function belong to class ifstream?
     + Differentiate ifstream & ofstream class?
     + Give the meaning of following function a)eof() b)seekp() c)tellp()
     + Write the difference between get() & put() in C++?
     + What is stream? Explain any three stream classes supported by C++?
     + Explain with syntax for member function belong to class ofstream?
     + Give the meaning of following function
     + a)seekg() b)tellg() c)put()
2. **This question from chapter 13 i.e data base concept**

* Explain the different user of DBMS?
* Explain any three component used in E-R diagram
* Explain relational data model with example?
* What is data model? Explain any one
* What is network model explain with diagram?
* What is network model? Give an advantage & disadvantages of this model?
* What is hierarchical model explain with example?
* What is hierarchical model? Write the advantages?
* Give any three difference between manual data processing & electronic data processing?
* Explain any features of DBMS?
* write any application of database?
* What is data warehouse ? Mention the components of data warehouse?

🡪data warehouse is a repository of an organization’s electrically stored data which helps in reporting & data analyst.

The components of data warehouse are

* data source,
* data transformation,
* reporting,
* meta data,
* operation & operational components.
* ETL(extract transform load)
* What is data mining? Mention the components/ stages of data mining?

🡪Data mining is concerned with the analysis and picking of relevant information form large data base.

Stages in data mining are

* Selection
* Preprocessing
* Transformation
* Interpretation
* evalution
* Explain physical data independence?
* What is data abstraction explain in detail?
* What is data independence ? mention the types?
* Define a)generalization b)specialization c)aggregation
* Explain one tier data base architecture?
* Mention any three advantages of random/ direct access method?
* Mention any three advantages of random file organization?
* What is keys? Explain any three types of keys used in database creation?
* Explain logical two tier client server architecture?
* What are the advantages & disadvantages of ISAM?
* Mention any three advantages of data warehouse?
* Explain ISAM with its advantages?

1. **This question from chapter 16 i.e internet & open source software**

* Define a. shareware b. FSF c. open source software
* Mention the advantages of e commerce
* What is e commerce mention its types?
* Explain the types of e commerce
* Mention any three technologies & services used in e commerce?

🡪few services of e commerce are

Email

EFT(electronic fund transfer)

EBT(electronic benefit transfer)

Digital cash

Electronic banking

Electronic form

Bar coading

Voice recognition

Security services such as firewall, encryption, gateways etc.

* What is web browser? Mention any web browsers software?

🡪It is an application software that is used to browse the information in the internet

2 web browsers are

Mozilla firefox

Googel Chrome

Uc browser

Internet explorer

Opera

Netscape navigator

* What is meant by shareware? Explain its limitations?
* What are the application of e commerce?

🡪The application of e commerce are

Retail & wholesale

finance

online Marketing

Online shopping

E banking

Online booking

Digital advaertisement

Online publishing

* Define the terms a) web browser b)web page c)www
* Define the terms a) web server b)telnet c)e commerce
* Write a short note on open source software?
* Write the advantages & disadvantages of WWW?
* What is e commerce? Write its advantages?
* What is e commerce? Write its disadvantages?
* Write any 3 critiria of open source software?

🡪free redistribution

Source code

Derived work

Distribution of licenses

The licenses must not restrict other software

* Define the terms a) web server b)telnet c)e commerce

1. **This question from chapter 17 i.e web designing**

* Explain the general structure of HTML in detail? **“OR”** explain the skeleton of HTML?
* Define the terms a) web browser b)web page c)www
* Explain any three html tag
* Write a short note on web 2.0?
* Explain any three text formatted tag in html
* Explain any three form tags?
* What is web scripting? Explain in detail?
* What is computer virus? Mention the features of computer virus?
* What is anti virus? Mention any 2 anti virus software?
* Give any three features of DHTML
* What is web hosting? Mention the different types of web hosting?
* Explain any three text resizing tag in HTML?
* What is web hosting? Explain any two types of web hosting?
* Explain any three table tags in html?
* What is web scripting? Explain its types?
* Give the features of XML?
* Write the difference between HTML & XML?
* What are the advantages & disadvantages of web designing?
* Explain any three types of web hosting services?
* Define the following tags a) <hr> b)<br> c)<a>
* Define the following tags a) <img> b)<ol> c)<ul>
* Define the following tags a) <sup> b)<sub> c)<mark>
* Define the following tags a) <h1> b)<p> c)<u>
* Define the following tags a) <u> b)<b> c)<i>
* What is search engine ? give an example?