

# Chap-1

1. Write two strategies for planning a solution and defining a problem/ Define "Act it out" strategy , "defining a problem" and "planning a solution"/ Gain Background Knowledge / 5 W's to understand problem (Lhr 2021(mor) ) (FSD-2023) (Lhr 2021(eve) ) (MLTN-2021(mor) ) (Grw-2022 (eve) ) (MLTN-2021) (Grw-2021) (BWP-2022) (RWP-2022) (Grw-2022(mor) ) (MLTN-2021(eve) )
2. Define an Algorithm / efficiency of an algorithm / "Input" and "Output" notation of an algorithm / role of algorithm/ GOTO notation in an algorithm?/two advantages of an algorithm/ algorithm verification. (LHR-2022(eve) ) (Grw-2022(eve) ) (BWP-2021) (MLTN-2022) (Grw-2021) (BWP-2022) (Grw-2021) (BWP-2021) (RWP-2023) (MLTN-2021) (BWP-2021) (MLTN-2021) (Grw-2022(mor) ) (Lhr 2021(mor) ) (DGK-2021)
3. What is prototype? (RWP-2023) (MLTN-2022) (Grw-2021) (BWP-2022) (Grw-2022) (Lhr 2021)
4. Define the Flow Chart. / Write importance of flowchart / terminal symbol / Flow lines / Diamond Symbol in flowchart?/ two advantages of flowchart (RWP-2022) (MLTN-2022) (MLTN-2021) (RWP-2023) (MLTN-2023) (DGK-2021) (Grw-2021(eve) ) (Lhr 2021) (DGK-2021) (Grw-2021(mor) )(MLTN-2021) (Lhr 2021) (FSD-2023) (BWP-2023) (LHR-2022) (Grw-2022)(Grw-2021) (MLTN-2022)
5. What is the problem analysis? (Lhr 2021) (BWP-2023) (MLTN-2021)
6. Describe Candid Solution /Which solution saves our time? (FSD-2023) (Lhr 2021) (LHR-2022) (BWP-2021)(DGK-2022) (BWP-2022) (BWP-2023)
7. Write name or What is meant by Test data/ boundary test data?/ Valid Test Data?/ Absent test data / Explain the importance of Testing (BWP-2023) (RWP-2023)(FSD-2023) (DGK-2022) (LHR-2022) (RWP-2022)(MLTN-2023)
8. What is meant by problem solving? / Write the name of the steps involve in problem solving. (MLTN-2023)(RWP-2022) (LHR-2022) (DGK-2022)
9. What is meant by trace table? (DGK-2021)
10. What is meant by decision making? (MLTN-2022) (DGK-2021)
11. What is meant by act-it-out? / understanding problem? / Divide and Conquer Rule? / selecting the best solution (MLTN-2022) (DGK-2021) (MLTN-2023) (DGK-2021)(BWP-2022) (MLTN-2022)
12. What is the difference between verification and validation? (MLTN-2022)
13. What is meant by strategy "use guess" in defining a problem? (MLTN-2023)
14. Draw Flowchart to find the Volume of Cube / proposition P.Q+P / find the area of parallelogram. (Grw-2021) (BWP-2022) (RWP-2022)

## Long

1. What is flowchart? How the requirements of flowchart are determined? Write down in detail. / write use of its symbols (MLTN-2021) (MLTN-2022) (Grw-2021) (BWP-2023)(Lhr 2021) (LHR-2022) (Grw-2021) (DGK-2021) (Lhr 2021) (DGK-2022) (DGK-2021) (BWP-2022) (Grw-2022) (MLTN-2021)
2. Compare verification and validation. Explain with example. (MLTN-2023)
3. What is test data? Write a note on three types of test data. (BWP-2022) (Lhr 2023) (MLTN-2022)
4. Define Problem solving/Defining a problem? explain understanding a problem./ Steps to solve problem (LHR-2022)
5. Define algorithm and Explain the formulation of an Algorithm. / Importance (Grw-2022) (BWP-2021)
6. Write note on the types of test data. (FSD-2023)

## Chap-2

1. What is meant by number system Define its types. (Grw-2021) (Grw-2021) (BWP-2021) (MLTN-2023) (LHR-2022) (BWP-2022) (Grw-2022) (Lhr 2021) (DGK-2021(mor) ) (DGK-2021(eve) )(Grw-2021) (Lhr 2021) (BWP-2023)
2. What is difference between bit and byte? (DGK-2021(mor) ) (DGK-2021(eve) )(LHR-2022) (Grw-2021) (Lhr 2021)
3. What do you mean by the Base or Radix of a Number System? (MLTN-2022)(BWP-2022)
4. How is Data represented in Computer? (Grw-2022) (DGK-2021) (BWP-2022)
5. Define commutative law / Distributive law / identity law (DGK-2022) (Grw-2022) (LHR-2022) (RWP-2022) (BWP-2022)
6. Define Boolean algebra / expression (LHR-2022) (BWP-2021) (DGK-2022) (Grw-2022) (RWP-2022)
7. What is meant by logical expressions? (LHR-2022) (Grw-2022)
8. Define memory and write the name/Define its types. (MLTN-2021) (Grw-2021) (BWP-2021) (RWP-2022) (Lhr 2021)
9. How a statement is considered as boolean proposition? / Give example of proposition (MLTN-2022) (FSD-2023) (RWP-2023) (Lhr 2021) (MLTN-2022)
10. Define truth table / Values (BWP-2022) (LHR-2022) (BWP-2021) (MLTN-2021) (Lhr 2023)
11. Write four names of Storage Device / Secondary memory (FSD-2023) (Grw-2022) (DGK-2022)
12. What is difference between memory and storage? (MLTN-2023) (DGK-2022)
13. Define ASCII code. (FSD-2023)
14. What do you know about non-volatile memory? /Write down difference between volatile memory and non volatile-memory / Why RAM is called volatile memory. / Explain Volatile Memory with example / Why we called secondary memory is non- volatile memory. (MLTN-2022(Mor) ) (Lhr 2021) (BWP-2023) (DGK-2021) (MLTN-2021) (Grw-2021) (BWP-2022) (Grw-2022) (LHR-2022(MOR) ) (LHR-2022 (eve) ) (MLTN-2021) (LHR-2022) (MLTN-2022(Eve) ) (RWP-2022)
15. Write names / Define all Logical operator (DGK-2021) (BWP-2023) (Grw-2022) (MLTN-2022) (BWP-2022) (Grw-2021)

### C.Q's

1. Draw Truth Table of logical NOT / AND / OR operator (MLTN-2022) (LHR-2022(Mor) ) (LHR-2022(Eve) ) (DGK-2022) (MLTN-2021) (MLTN-2023) (BWP-2022) (Grw-2022) (Lhr 2023) (LHR-2022) (Grw-2021) (RWP-2023)
2.  $(11600001)_{10} / (69610)_{10} / (101111)_2 / (357)_{10}$  convert into hexadecimal (LHR-2022) (MLTN-2022) (RWP-2023) (Lhr 2021) (Grw-2022)
3. Convert  $(1000001)_2 / (C921)_{16} / (1024)_{16} / (1011)_2 / (CF21)_{10}$  into Decimal Number System. (BWP-2022) (BWP-2023) (DGK-2022) (LHR-2022) (DGK-2021) (FSD-2023) (MLTN-2021) (MLTN-2023)
4. Prove that :  $A.B.C=C.B.A$  /  $A.B=B.A$  /  $x+y=y+x$  (BWP-2022) (MLTN-2022) (RWP-2023)
5. Convert  $(A23)_{16} / (A23)_{16} / (160)_{10} / (158)_{10} / (156)_{10} / (A23)_{16}$  into binary number system. (MLTN-2022) (MLTN-2021(Mor) ) (MLTN-2021(eve) ) (RWP-2022(Mor) ) (BWP-2022(eve) ) (Grw-2022)
6. How to convert binary number to a decimal, with an example (Lhr 2021)
7. Draw compound proposition table of  $P+Q+NOT(P)$ . (Grw-2022)
8. Write the truth table for X and Y if X= today is Friday Y=It is very cold today (BWP-2022)
9. Write expression using associative Law using AND and OR operator (MLTN-2022)

## Chap-3

1. What is meant by Hardware Sharing with example?/ advantage of hardware sharing in a network? (LHR-2022) (Lhr 2023) (Grw-2021) (Grw-2022) (RWP-2023) (BWP-2023) (DGK-2021)
2. Define communication channel. (RWP-2023)
3. Define computer network with example/ increasing storage capacity/Video conferencing? (BWP-2022)(MLTN-2021) (Lhr 2021(Mor) ) (Lhr 2021(eve) )
4. Define the protocol / FTP /SMTP / HTTP /How doe HTTP protocol work? (MLTN-2022(Mor) ) (MLTN-2022(eve) ) (Lhr 2023)(Lhr 2021(Mor) ) (Lhr 2021(eve) ) (LHR-2022) (FSD-2023)(Grw-2021(Mor) ) (Grw-2021(eve) ) (BWP-2021)(DGK-2021)(MLTN-2023)(MLTN-2022) (RWP-2022)
5. How many types are of Connection? Define / Write names (BWP-2022) (LHR-2022) (RWP-2023)
6. Define File Sharing (MLTN-2021) (DGK-2021)
7. Define communication./What is meant by message in data communication? (Lhr 2023) (Grw-2022)(FSD-2023) (MLTN-2021(Mor) ) (MLTN-2021(Eve) ) (Lhr 2021)
8. Write a short note on Client Server/ How to connect client and server with each other on internet /Define Client and server./Why is server more powerful than client?/Why we use server computer? (LHR-2022) (Lhr 2023) (MLTN-2023) (MLTN-2022) (LHR-2022)(BWP-2023)(Grw-2022)
9. Explain IP Addressing./Describe the difference between Static and Dynamic IP address/ Define IPv4 address/Write down the standard names of IP addressing. (DGK-2021) (RWP-2022)(MLTN-2021) (MLTN-2023)(Grw-2021)(BWP-2023)
10. Why addressing is needed in data communication? (Grw-2022)
11. Define router?/Routing (DGK-2021)(LHR-2022) (MLTN-2021) (MLTN-2022)
12. What is the function of data link layer?/ Physical / Data link /Application/ Transport Layer (DGK-2022)(FSD-2023)(DGK-2021)(BWP-2022)(Grw-2021(eve) )(Grw-2021(mor) ) (Grw-2022)
13. Define control information. (Grw-2021)
14. Differentiate between sender and receiver?/function of Sender (Grw-2021) (BWP-2021)
15. Define hub or switch. (Grw-2022)
16. Define Transmission Medium//Write different types of transmission medium. (MLTN-2023)(BWP-2021)
17. Define TCP/IP. (DGK-2022)
18. Differentiate between Sender and Receiver (DGK-2021(Mor) )(DGK-2022) (DGK-2021(eve) )
19. Write any two advantages of Ring Topology/ disadvantages of Mesh Topology/Define star topology./ Ring Topology. (RWP-2023)(BWP-2023(mor) ) (BWP-2022(eve) ) (RWP-2022) (BWP-2022)
20. What is Computer Network model?/ Physical Layer. (BWP-2022)(MLTN-2021)
21. URL stands for? (MLTN-2022)

## Long

1. Define computer network model Explain its any 3/4 layers in TCP/IP models (MLTN-2022) (Lhr 2023) (Lhr 2021) (Grw-2021)(MLTN-2021)
2. What is meant by Topology? Describe Star / Ring /Bus/ Ring/ Mesh topology and its working Difference and advantages in detail. (BWP-2022) (DGK-2022) (LHR-2022) (RWP-2023) (RWP-2022)(MLTN-2022)
3. Explain Router/Routing process in detail (Lhr 2021)(Grw-2021)(BWP-2023)
4. What is data communication? Explain components of communication system. (DGK-2021) (LHR-2022) (BWP-2022) (Grw-2022)
5. Write down notes on the following: (1) File sharing (ii) Hardware Sharing (Grw-2022)
6. Define Computer Network and write its importance/ Needs in detail. (BWP-2021)(FSD-2023)(DGK-2021)(MLTN-2023)(MLTN-2021)

## Chap-4

1. What is meant by hard-disk loading? (Lhr 2021(mor) ) (Lhr 2021(eve) )
2. What is counterfeiting?/ difference between online piracy and counterfeiting (Grw-2021) (Lhr 2021(mor) )  
(Lhr 2021(eve) ) (Grw-2022)
3. What is meant by Copy Right?/ Compare the copyright and trade secrets./ piracy and copyright (Lhr 2023)  
(Grw-2021) (BWP-2023) (BWP-2022) (RWP-2023) (Grw-2022)
4. Define client server overuse./Fraud and Misuse (BWP-2022) (RWP-2023) (BWP-2022)
5. What is meant by counter fitting?/ Softlifting./control information. (FSD-2023) (MLTN-2021) (DGK-2021)  
(Grw-2022)
6. Write the types of software piracy / Piracy / online piracy/"Key of Software" in Piracy/ types of software piracy  
(BWP-2021) (Grw-2021) (Grw-2022) (DGK-2021) (FSD-2023) (MLTN-2021) (MLTN-2022) (MLTN-2022)
7. What Is sabotage? / encryption? (Lhr 2023) (BWP-2023) (LHR-2022) (Grw-2021) (Grw-2022) (DGK-2021)
8. What is difference between hacker and hacking? (MLTN-2022)(Grw-2022)(LHR-2022) (DGK-2021) (Grw-2022)
9. What is meant by Data Privacy?/ reason to add captcha (MLTN-2023) (BWP-2021)
10. What is meant by random Caesar Cipher method? (DGK-2022)
11. How does spyware damage? / Cybercrime? (MLTN-2021(mor) ) (MLTN-2021(eve) ) (DGK-2022)
12. Write two issues related to data security. / purpose of password (LHR-2022) (BWP-2022)
13. Define the phishing attack./ DOS attack (RWP-2022) (FSD-2023)
14. What does the scammer websites play role in cybercrime? (RWP-2022)
15. What is patent and why do we need to register it? (MLTN-2023) (MLTN-2022)
16. Differentiate between integrity and confidentiality. (LHR-2022)

## long

Explain substitution cipher method with examples (Lhr 2023) (DGK-2021) (MLTN-2021)

Why we use data encoding? Also write any three data security issues. (LHR-2022)

What is cybercrime? Explain its types (MLTN-2023) (Lhr 2021) (Grw-2021) (DGK-2022)

What is meant by encryption? Also explain the importance of encryption for every day life on the internet (MLTN-2021)  
(RWP-2022) (FSD-2023) (Lhr 2021)

What is phishing attack? Write three characteristics of phishing email and phishing websites. (Grw-2022) (BWP-2022)  
(LHR-2022)

What is the use of password? Also write down three characteristics of a good password/ relation between key and password  
(Grw-2022) (DGK-2021) (MLTN-2021)

Analyze the Personal Privacy and Security Concerns that arise with any use of Computational System/ four examples of piracy  
concerns arise through the mass collection of data (BWP-2022) (BWP-2023)

Define Software Piracy. Also explain its any three types in detail. (BWP-2021)

Describe DOS (Denial of Service) attack in detail (MLTN-2022) (RWP-2023)

# Chap-5

Name of HTML tags /What are the singular tags?/ Paired tag (MLTN-2022) (BWP-2022) (Grw-2021(mor) ) (Grw-2021(eve) ) (Lhr 2021) (MLTN-2023)

Write the tag for line breaking. (BWP-2022) (MLTN-2021) (LHR-2022) (Lhr 2021)

What is hyperlink?/ Hyper Text /Differentiate between Hyperlink and Anchor/Which tag is used to create hyperlink in HTML? (Grw-2021)(BWP-2022)(DGK-2021)(DGK-2021)(Lhr 2021) (Lhr 2021) (BWP-2022) (RWP-2023) (BWP-2023)

What is meant by body section/ head section? in HTML." (RWP-2022) (Lhr 2021) (Lhr 2021)(BWP-2023)(Grw-2022)

How to write heading and sub-headings in an HTML document/ How to write Headings and Sub-headings in an HTML document?(BWP-2021) (FSD-2023) (MLTN-2021) (Lhr 2021)

What is meant by mark-up language? (Grw-2021(mor) ) (Grw-2021(eve) ) (Lhr 2021)

Write down the name of tags types that are used in HTML document./ Give one example of paired tag. (LHR-2022) (Lhr 2021)

Which Tag is used for making table in HTML?/ How the table is created in HTML? / Define colspan./ rowspan (DGK-2022) (FSD-2023) (LHR-2022) (FSD-2023) (Lhr 2023) (BWP-2023)

Define the Anchor./ difference between Hyper link and Anchor ? (DGK-2021(mor) ) (DGK-2021(eve) ) (MLTN-2021) (MLTN-2022)(MLTN-2022) (BWP-2023) (Grw-2021)

How many types of list in HTML? / definition list. /difference between ordered and unordered list? /nested List (DGK-2022)(RWP-2022)(MLTN-2023)(Lhr 2023) (LHR-2022)

Define HTML ? / characteristics of HTML/ phrase "HTML. Is not case sensitive" (DGK-2022)(MLTN-2021) (DGK-2021) (LHR-2022) (BWP-2021)

Why &nbsp; is used in HTML? (FSD-2023) (LHR-2022) (BWP-2022)

Write name of two attributes of <img> tag. (MLTN-2023) (BWP-2022)

What is meant by tag <br> ? / what is <title> tag? / <html> tag. (MLTN-2021) (MLTN-2022) (DGK-2021) (DGK-2021)

Write tag/code for applying back ground color Blue and fore ground color Red to a web page? (BWP-2022)

Write down the attributes in HTML tags? (Grw-2021)

How to create paragraph in HTML?/ How to add picture in the background (RWP-2022) (DGK-2021)(Grw-2021) (Grw-2022)

Define paired tag / How to add paired tags? / Why" OL" tag is used? (MLTN-2022) (BWP-2022) (Grw-2022) (DGK-2021)

## C.Q's

Write down the code of the following list in HTML: (Grw-2022)

(1) BISE

(2) FBIS

Write down a tag code of two different headings of "BISE". (Grw-2022)

Write the code to procedure to create Hyperlink to Image. (BWP-2021)

Write code in HTML to change the color to "Blue" of the text "I Love Pakistan". (RWP-2022)

Write the output of following HTML code <p> This is <br> a Line </p> (RWP-2023)

Write the procedure to create Hyperlink to image. / code using image tag. (DGK-2022)(MLTN-2021)

Write HTML code/tag to make the word "PAKISTAN" italic. (MLTN-2023)

Write HTML code to italic the text "I Love Pakistan". (MLTN-2022)

Write a code of HTML of font size of text 24 "Punjab". (LHR-2022)

What do we come to know about any file extension? (MLTN-2022)

Write HTML code to set background color to green. (MLTN-2022)

Which Software is used to create a Webpage? (BWP-2021)