

Information Technology MCQ Practice

+2 2nd Year (Class XII)

46 questions · 8 chapters · answers with explanations

How to use: attempt each chapter's questions without looking, then check the Answer Key at the end. Read the one-line explanation for every question you got wrong, and revise that topic in your notes.

Computer Networking

1. A network spread over a city is called a
 - (a) LAN
 - (b) MAN
 - (c) WAN
 - (d) PAN
2. In which topology are all computers connected to a central hub or switch?
 - (a) bus
 - (b) ring
 - (c) star
 - (d) mesh
3. Which device forwards data between different networks?
 - (a) hub
 - (b) router
 - (c) repeater
 - (d) modem only
4. The unique address of a network card (fixed by the maker) is the
 - (a) IP address
 - (b) MAC address
 - (c) URL
 - (d) e-mail address
5. Which cable uses light to carry data?
 - (a) twisted pair
 - (b) coaxial
 - (c) optical fibre
 - (d) power cable
6. Bluetooth is an example of a
 - (a) WAN
 - (b) PAN
 - (c) MAN
 - (d) LAN cable

Internet and its Applications

7. WWW stands for
 - (a) World Wide Web
 - (b) World Web Wide
 - (c) Wide World Web
 - (d) Web World Wide
8. Which protocol is used to transfer web pages?
 - (a) FTP
 - (b) HTTP
 - (c) SMTP
 - (d) POP3
9. SMTP is used for
 - (a) sending e-mail
 - (b) browsing
 - (c) file sharing
 - (d) video calls

10. DNS converts
- | | |
|-------------------------|----------------------------------|
| (a) IP addresses to MAC | (b) domain names to IP addresses |
| (c) text to images | (d) files to folders |
11. Which of these is a web browser?
- | | |
|-------------------|------------------|
| (a) Google Chrome | (b) Google Drive |
| (c) Gmail | (d) YouTube |
12. A URL is the
- | | |
|--------------------------------------|------------------------------|
| (a) address of a resource on the web | (b) name of a computer virus |
| (c) type of cable | (d) e-mail password |

Network Security on the Internet

13. A program that copies itself and spreads to damage files is a
- | | |
|--------------|------------|
| (a) firewall | (b) virus |
| (c) browser | (d) router |
14. A firewall is used to
- | | |
|---------------------------|-------------------------------|
| (a) speed up the internet | (b) block unauthorised access |
| (c) store files | (d) print documents |
15. Fake e-mails that trick users into revealing passwords are called
- | | |
|-------------|--------------|
| (a) spam | (b) phishing |
| (c) cookies | (d) backups |
16. HTTPS sites are safer because they
- | | |
|-----------------|---------------------------|
| (a) load faster | (b) encrypt the data sent |
| (c) have no ads | (d) use no passwords |
17. A strong password should
- | | |
|--------------------------------------|-----------------|
| (a) be your name | (b) be short |
| (c) mix letters, numbers and symbols | (d) be "123456" |
18. Converting data into a secret code is called
- | | |
|-----------------|----------------|
| (a) decryption | (b) encryption |
| (c) compression | (d) formatting |

Programming Fundamentals (Java)

19. Which keyword is used to create an object in Java?
- | | |
|-----------|------------|
| (a) class | (b) new |
| (c) this | (d) static |
20. An array index in Java starts from
- | | |
|--------|----------------|
| (a) 1 | (b) 0 |
| (c) -1 | (d) any number |
21. Which method returns the length of a String s?
- | | |
|---------------|----------------|
| (a) s.size() | (b) s.length() |
| (c) s.count() | (d) length(s) |
22. A method with the same name as its class, used to initialise objects, is a
- | | |
|----------------|-----------------|
| (a) destructor | (b) constructor |
| (c) variable | (d) loop |

23. Which keyword stops a loop immediately?

- (a) continue
- (b) break
- (c) exit
- (d) stop

HTML – Creating Web Pages

24. HTML stands for

- (a) HyperText Markup Language
- (b) High Text Machine Language
- (c) Hyper Tool Markup Language
- (d) Home Text Making Language

25. Which tag creates a hyperlink?

- (a) <link>
- (b) <a>
- (c) <href>
- (d) <url>

26. Which tag inserts an image?

- (a) <image>
- (b)
- (c) <pic>
- (d) <src>

27. The largest heading tag is

- (a) <h6>
- (b) <h1>
- (c) <head>
- (d) <heading>

28. Which tag creates a table row?

- (a) <td>
- (b) <tr>
- (c) <th>
- (d) <row>

29. The tag creates a

- (a) bulleted list
- (b) numbered list
- (c) table
- (d) link

30. Which tag makes text bold?

- (a) <i>
- (b)
- (c) <u>
- (d)

Database Fundamentals

31. A key that can uniquely identify rows but is not chosen as the primary key is an

- (a) alternate key
- (b) foreign key
- (c) composite key
- (d) null key

32. A primary key made of two or more columns is a

- (a) composite key
- (b) foreign key
- (c) unique key
- (d) super row

33. DBMS helps to reduce

- (a) data security
- (b) data redundancy
- (c) data sharing
- (d) users

34. NULL in a database means

- (a) zero
- (b) a missing or unknown value
- (c) a blank space
- (d) an error

More MySQL

35. Which function gives the number of rows?
(a) SUM() (b) COUNT()
(c) MAX() (d) AVG()
36. Which command changes existing data in a table?
(a) ALTER (b) UPDATE
(c) MODIFY (d) CHANGE
37. ALTER TABLE is used to
(a) change the structure of a table (b) delete all rows
(c) show data (d) create a database
38. To group rows that have the same value we use
(a) ORDER BY (b) GROUP BY
(c) WHERE (d) DISTINCT
39. Which clause filters groups after GROUP BY?
(a) WHERE (b) HAVING
(c) ORDER BY (d) LIMIT
40. DELETE FROM student; will
(a) delete the table structure (b) delete all rows but keep the table
(c) delete the database (d) do nothing
41. Which keyword removes duplicate values from a result?
(a) UNIQUE (b) DISTINCT
(c) DIFFERENT (d) SINGLE
42. The wildcard % in LIKE matches
(a) exactly one character (b) any number of characters
(c) only digits (d) nothing

IT Applications

43. An application where customers can bank online is called
(a) e-banking (net banking) (b) e-learning
(c) e-governance (d) e-mail
44. UPI is used for
(a) instant mobile payments (b) sending e-mails
(c) video calls (d) booking hotels only
45. Front-end of a database application is the
(a) user interface (forms) (b) data tables
(c) hard disk (d) server room
46. Which is an example of an e-governance service?
(a) DigiLocker (b) Instagram
(c) Netflix (d) a calculator

Answer Key with Explanations

Computer Networking

1. **(b)** MAN — Metropolitan Area Network.
2. **(c)** star — If the hub fails, the whole network fails.
3. **(b)** router — A router chooses the best path between networks.
4. **(b)** MAC address — A 48-bit physical address.
5. **(c)** optical fibre — Very high speed and no electrical interference.
6. **(b)** PAN — Personal Area Network, about 10 m range.

Internet and its Applications

7. **(a)** World Wide Web — Invented by Tim Berners-Lee.
8. **(b)** HTTP — HyperText Transfer Protocol (HTTPS is the secure form).
9. **(a)** sending e-mail — Simple Mail Transfer Protocol.
10. **(b)** domain names to IP addresses — Domain Name System.
11. **(a)** Google Chrome — A browser displays web pages.
12. **(a)** address of a resource on the web — Uniform Resource Locator.

Network Security on the Internet

13. **(b)** virus — Viruses attach to other files.
14. **(b)** block unauthorised access — It filters network traffic.
15. **(b)** phishing — Never share OTPs or passwords.
16. **(b)** encrypt the data sent — S = Secure (SSL/TLS encryption).
17. **(c)** mix letters, numbers and symbols — Long, mixed passwords are hard to guess.
18. **(b)** encryption — Only someone with the key can read it.

Programming Fundamentals (Java)

19. **(b)** new — Example: Student s = new Student();
20. **(b)** 0 — The first element is a[0].
21. **(b)** s.length() — For arrays, use a.length (no brackets).
22. **(b)** constructor — It has no return type.
23. **(b)** break — continue skips only the current iteration.

HTML – Creating Web Pages

24. **(a)** HyperText Markup Language — The language of web pages.
25. **(b)** <a> — text.
26. **(b)** — .
27. **(b)** <h1> — h1 is the biggest; h6 the smallest.
28. **(b)** <tr> — <td> is a data cell; <th> is a header cell.
29. **(b)** numbered list — gives a bulleted list.
30. **(b)** — also gives bold, meaning importance.

Database Fundamentals

31. **(a)** alternate key — All candidate keys except the primary key.
32. **(a)** composite key — Example: (class, roll number).
33. **(b)** data redundancy — The same data is not stored again and again.
34. **(b)** a missing or unknown value — NULL is not the same as 0.

More MySQL

35. **(b)** COUNT() — COUNT(*) counts all rows.
36. **(b)** UPDATE — UPDATE t SET col = value WHERE ...
37. **(a)** change the structure of a table — Add, drop or modify columns.
38. **(b)** GROUP BY — Used with aggregate functions.
39. **(b)** HAVING — WHERE filters rows; HAVING filters groups.
40. **(b)** delete all rows but keep the table — DROP TABLE removes the structure too.

41. (b) DISTINCT — SELECT DISTINCT city FROM t;
42. (b) any number of characters — _ matches exactly one character.

IT Applications

43. (a) e-banking (net banking) — Transfers, statements, bill payments.
44. (a) instant mobile payments — Unified Payments Interface.
45. (a) user interface (forms) — The back-end is the database.
46. (a) DigiLocker — Government documents stored digitally.