SSC-II Computer: Chapter-wise MCQs

Federal Board (FBISE) | National Book Foundation textbook | 534 MCQs in 8 units plus Federal Board past papers. The correct option in every question is shown in bold.

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Unit 1: Computer Systems

76 MCQs

1. The decimal number 5 is represented in binary as
A. 100 **B. 101** C. 111 D. 110

2. The ASCII code of the letter 'A' is
A. 48 (00110000) B. 97 (01100001)
C. 65 (01000001) D. 90 (01011010)

3. The ASCII code of 'Z' (90 in decimal) in binary is
A. 01001110 B. 01011000 C. 01101001 **D. 01011010**

4. An 8-bit unsigned integer can represent values from
A. 0 to 255 B. 0 to 127
C. -255 to 255 D. -128 to 127

5. In an 8-bit signed integer representation, the range of values is
A. 0 to 255 B. -256 to 255
C. -128 to 127 D. -127 to 128

6. The number of different values that can be represented with a 10-bit binary number is
A. 256 **B. 1024** C. 512 D. 2048

7. The base of the binary number system is
A. 2 B. 8 C. 10 D. 16

8. The base of the hexadecimal number system is
A. 2 B. 8 C. 10 **D. 16**

9. The hexadecimal number system uses digits
A. 0–9 and letters A–F B. 1–6 and letters A–J
C. 0 and 1 D. 0–15 only

10. The decimal equivalent of binary $(1011.101)_2$ is
A. 10.625 **B. 11.625** C. 13.625 D. 11.5

11. The decimal equivalent of octal $(672)_8$ is
A. 56 B. 384 C. 672 **D. 442**

12. The decimal equivalent of hexadecimal $(1BE8)_{16}$ is
A. 2816 B. 224 **C. 7144** D. 4096

13. The binary equivalent of decimal 179 (integer part) is
A. 10110001 B. 11110011 C. 10010011 **D. 10110011**

14. Each octal digit is converted to _____ binary bits.
A. 3 B. 4 C. 2 D. 8

15. Each hexadecimal digit is converted to _____ binary bits.
A. 8 B. 3 **C. 4** D. 2

16. To convert binary to hexadecimal, group the bits in
A. threes from the right **B. fours from the right**
C. eights from the right D. twos from the left

17. To convert binary to octal, group the bits in
A. fours from the right B. fives from the right
C. twos from the right **D. threes from the right**

18. In binary addition, 1 + 1 equals
A. 2 **B. 10 (0 carry 1)**
C. 1 D. 11

19. Overflow happens when a calculation result is
A. too small to be represented B. exactly zero
C. too large to fit in the available bits D. negative

20. Adding 1 to 255 in an 8-bit unsigned register causes
A. overflow B. no error
C. underflow D. a carry-free result of 255

21. The 1's complement of a binary number is obtained by
A. dropping the last bit B. shifting bits left
C. adding 1 **D. inverting all its bits**

22. The 1's complement of binary 01101 is
A. 10010 B. 01101 C. 11111 D. 10011

23. The 2's complement of a binary number is obtained by taking the 1's complement and then
A. inverting again B. shifting left
C. adding 1 to the LSB D. subtracting 1

24. The 2's complement of 01010001 is
A. 10101110 **B. 10101111** C. 10101011 D. 01010001

25. The range of an n-bit unsigned binary number is
A. 0 to 2^n B. 1 to 2^n
C. -2^n to 2^n **D. 0 to $2^n - 1$**

26. The most common method to represent signed numbers in modern computers is
A. sign-magnitude only B. octal
C. two's complement D. one's complement

27. The 8-bit two's complement representation of −43 is
A. 11010101 B. 11101011 C. 10101010 D. 10101011

28. ASCII stands for
A. Advanced Standard Code for Information Interchange
B. American Standard Code for Information Interchange
C. American Standard Code for Internet Interchange
D. American System Code for Information Interchange

29. Standard ASCII uses _____ bits and represents 128 characters.
A. 7 B. 32 C. 16 D. 8

30. Extended ASCII (ASCII-8) uses 8 bits and represents
A. 512 characters B. 128 characters
C. 256 characters D. 65,536 characters

31. IBM chose to use _____ code in its computers instead of ASCII at first.
A. UTF-8 B. Unicode C. ANSI **D. EBCDIC**

32. Unicode was developed to support
A. only symbols **B. all written languages of the world**
C. only numbers D. only English

33. UTF stands for
A. Unicode Text File B. Universal Text Format
C. Universal Transfer Format **D. Unicode Transformation Format**

34. An operating system (OS) is
A. a web browser
B. a type of hardware
C. essential software that manages memory, processes, hardware and software
D. a programming language

35. Which of the following is an example of an operating system?
A. Photoshop **B. Linux**
C. Google Chrome D. Microsoft Word

36. A process is
A. a program in execution B. a device driver
C. a hardware part D. a program stored on disk

37. File management allows users to
A. only create files
B. only delete files
C. only print files
D. create, copy, move, rename, delete and search files

38. A batch processing OS
A. uses many CPUs
B. groups similar tasks into batches and executes them sequentially
C. runs on embedded devices
D. responds immediately

39. A multiprogramming OS
A. uses time slices
B. runs only one program
C. loads multiple programs into main memory so the CPU is rarely idle
D. runs only in devices like TVs

40. A multitasking OS
A. performs multiple tasks concurrently by rapidly switching between them
B. runs only one task
C. has no CPU
D. processes jobs in batches only

41. A time-sharing OS divides CPU time into short intervals called
A. batches B. threads
C. blocks **D. time slices**

42. A real-time operating system (RTOS) is used where
A. files are copied
B. documents are written
C. timing is critical, such as medical equipment and traffic control
D. games are played

43. A distributed OS manages
A. a keyboard only **B. a network of computers**
C. a single processor D. a printer only

44. An embedded OS is built into
A. the hardware of a specific device like a microwave oven or TV
B. a desktop only
C. a server only
D. a web browser

45. The five states of a process are start, ready, running, waiting and
A. paused B. deleted
C. terminated D. restarted

46. A process that is ready for execution but waiting for the CPU is in the
A. ready state B. blocked state
C. terminated state D. running state

47. A process being executed by the processor is in the
A. terminated state B. ready state
C. start state **D. running state**

48. A process waiting for a resource is in the
A. ready state **B. blocked (waiting) state**
C. start state D. running state

49. Every process has at least
A. ten threads B. two threads
C. no thread **D. one thread**

50. Interrupts are signals that
A. delete files
B. close programs
C. alert the CPU to events needing immediate attention
D. slow down the CPU

51. A deadlock happens when
A. two or more processes wait for resources held by each other
B. a process finishes
C. the CPU is idle
D. memory is empty

52. The scheduling algorithm that gives CPU time in fixed time slices in cyclic order is
A. Priority scheduling **B. Round Robin**
C. First-Come First-Served D. Shortest Job Next

53. The memory management technique that divides memory into fixed-sized blocks is
A. virtual memory only B. segmentation
C. contiguous allocation only **D. paging**

54. The most common directory structure is
A. two-level B. circular
C. tree-structured D. single-level

55. Which file system is used by Windows NT and later versions?
A. HFS **B. NTFS** C. FAT D. ext4

56. Computer software is
A. a collection of programs, data and instructions that tell a computer what to do
B. physical parts of a computer
C. a power supply
D. a network cable

57. The main types of software are system, application, programming and
A. keyboard software B. memory software
C. driver software D. monitor software

58. Which type of software manages hardware and system resources?
A. Programming software B. Driver software
C. Application software **D. System software**

59. Printer drivers are examples of
A. driver software B. application software
C. programming software D. system software

60. Driver software acts as a bridge between
A. two files
B. the operating system and hardware devices
C. two users
D. two websites

61. Visual Studio and Eclipse are examples of
A. application software B. driver software
C. operating systems **D. programming software**

62. Which of the following is an offline application?
A. VLC Media Player B. Gmail
C. Google Docs D. Spotify streaming

63. Microsoft Access and MySQL are examples of
A. presentation software B. spreadsheets
C. database management systems D. word processors

64. An application patch is a piece of software designed to
A. format a disk
B. update, fix or improve an existing program
C. delete a program
D. install an OS

65. Installing and running software on servers within an organisation's own premises is called
A. dedicated hosting B. cloud hosting
C. shared hosting **D. on-premises hosting**

66. An entire physical server used exclusively by one organisation is called
A. shared hosting B. cloud hosting
C. dedicated hosting D. on-premises hosting

67. Cloud hosting is highly
A. costly and fixed
B. scalable and flexible with pay-as-you-go pricing
C. limited to one server
D. offline

68. Which component of programming software translates high-level code into machine code?
A. Compiler B. Text editor
C. Spreadsheet D. Browser

69. IDE stands for
A. Integrated Design Editor B. Internal Debugging Environment
C. Integrated Development Environment D. Internet Development Engine

70. An IDE combines a text editor, a debugger and a
A. browser B. printer driver
C. spreadsheet **D. compiler**

71. A debugger allows programmers to
A. run code step by step and inspect variables
B. browse the web
C. play music
D. print documents

72. Which tool provides coding, debugging and compiling in one place?
A. Repository **B. IDE**
C. Translator D. Text editor

73. Which component of system software controls input and output operations?
A. Word processor B. Spreadsheet
C. Web browser **D. Device driver**

74. Which software helps programmers store and manage code versions?
A. Code debugger B. Code translator
C. Code repository D. Code compiler

75. Which system software manages data transfer between RAM and storage devices?
A. Operating system B. Presentation software
C. Text editor D. Antivirus

76. Which is an example of an offline computing platform?
A. Cloud compiler **B. Installed IDE**
C. Online editor D. Web-based IDE

Unit 2: Computational Thinking & Algorithms

61 MCQs

1. A decision problem normally has a response of
A. a number of solutions **B. yes or no**
C. a list of values D. a route map

2. "Is n even?" is an example of a
A. counting problem B. sorting problem
C. decision problem D. search problem

3. In a counting problem, the answer is
A. the number of possible solutions to a search problem
B. a single route
C. a sorted list
D. a yes/no response

4. If there are two roads from Islamabad to Lahore (G.T. Road and Motorway), the answer to the counting problem is
A. 3 B. 1 C. 0 **D. 2**

5. The addition principle is used for events that are
A. mutually exclusive B. identical
C. dependent D. simultaneous

6. A student chooses among 3 desktops and 4 laptops. Total options are
A. 1 B. 34 **C. 7** D. 12

7. Bilal has 3 apples, 3 bananas and 3 bunches of cherries. The number of ways to pick one of each kind is
A. 6 B. 81 C. 9 **D. 27**

8. You have 5 shirts and 4 pants. The number of different outfits is
A. 9 **B. 20** C. 10 D. 15

9. A permutation is
A. a selection where order does not matter
B. a type of sorting
C. a type of loop
D. an arrangement of items in a specific order

10. Number of ways to arrange 3 of 4 paintings on a wall is
A. 24 B. 4 C. 12 D. 6

11. A combination is a selection of items where
A. all items are used B. the order matters
C. the order does not matter D. items repeat

12. Number of ways to choose 3 of 4 paintings (order irrelevant) is
A. 12 **B. 4** C. 24 D. 6

13. Combinations equal the number of permutations divided by
A. the number of ways to order the chosen items
B. the total items
C. 2
D. the number of boxes

14. In how many ways can you choose 2 out of 5 different books?
A. 15 B. 5 **C. 10** D. 20

15. A committee of 3 is selected from 8 people. The number of committees is
A. 120 B. 28 C. 84 **D. 56**

16. In how many ways can you select 3 different fruits from 7 fruits?
A. 21 **B. 35** C. 56 D. 84

17. The Pigeonhole Principle states that if n + 1 objects are placed into n boxes, then
A. no box has any object
B. all boxes are empty
C. each box has one object
D. at least one box contains two or more objects

18. If you have 13 apples and 12 baskets, then by the Pigeonhole Principle
A. all baskets are empty
B. each basket has one apple
C. at least one basket has more than one apple
D. no basket has an apple

19. Inclusion-Exclusion: n(A∪B) equals
A. n(A) + n(B) − n(A∩B) B. n(A) − n(B)
C. n(A) + n(B) + n(A∩B) D. n(A) × n(B)

20. In a class of 50 students, 30 did a math project, 25 a science project and 15 both. Students who did at least one are
A. 50 **B. 40** C. 45 D. 35

21. Binary strings of length 8 that begin with 1 can be filled in how many ways?
A. 64 B. 256 **C. 128** D. 32

22. Binary strings of length 8 that begin with 1 or end with 00 are
A. 160 B. 128 C. 224 D. 192

23. An algorithm is
A. a programming error
B. a data type
C. a type of hardware
D. a well-defined step-by-step procedure for solving a problem

24. The property of an algorithm that it can take externally supplied values is
A. Output **B. Input**
C. Finiteness D. Generality

25. Which property ensures an algorithm produces at least one result?
A. Output B. Definiteness
C. Finiteness D. Input

26. The property that every step is clear and precise is
A. Generality B. Effectiveness
C. Definiteness D. Finiteness

27. Finiteness means an algorithm
A. has infinite steps B. has no input
C. has no output **D. must end after a finite number of steps**

28. Effectiveness means operations are
A. complex and hidden
B. simple enough to be done by a person with paper and pencil
C. very long
D. infinite

29. Generality means an algorithm should
A. solve only one problem
B. have no input
C. never end
D. solve a group of similar problems, not just one

30. Which is NOT a property of an algorithm?
A. Definiteness **B. Ambiguity**
C. Finiteness D. Effectiveness

31. Which algorithm finds shortest paths in navigation applications?
A. Dijkstra B. Binary search
C. Bubble sort D. Linear search

32. Quicksort, mergesort and binary search are used for
A. cryptography B. image processing
C. sorting and searching D. machine learning

33. Boolean logic evaluates expressions to one of
A. any number **B. two values: true or false**
C. three values D. ten values

34. A AND B is true only when
A. both A and B are true B. A is false
C. both are false D. either is true

35. A OR B is false only when
A. either is false B. both are true
C. A is true **D. both A and B are false**

36. In a repeating pattern Square, Triangle, Circle, the 9th shape is a
A. Star B. Triangle **C. Circle** D. Square

37. Bubble Sort repeatedly
A. splits the list in halves
B. selects the smallest element each time
C. searches the list
D. compares adjacent elements and swaps them if in the wrong order

38. Selection Sort repeatedly
A. swaps adjacent elements
B. selects the smallest (or largest) element from the unsorted part
C. shifts elements right
D. divides the list into halves

39. Merge Sort
A. divides the list into halves, sorts each and merges them
B. selects the smallest element
C. swaps adjacent elements
D. uses a pivot only

40. Insertion Sort builds the final sorted array
A. all at once
B. by halves
C. one element at a time
D. by random swaps

41. Linear search
A. sorts the list
B. works only on sorted lists
C. halves the interval
D. checks each element sequentially until the target is found or the list ends

42. Binary search works on
A. only text files
B. unsorted arrays
C. sorted arrays
D. only strings

43. Binary search finds an element by
A. reversing the list
B. repeatedly dividing the search interval in half
C. checking every element
D. swapping elements

44. Breaking a complex problem into smaller sub problems is called
A. decomposition
B. pattern recognition
C. generalization
D. abstraction

45. Finding similarities among problems is called
A. abstraction
B. decomposition
C. testing
D. pattern recognition

46. Focusing on important information and ignoring irrelevant details is
A. debugging
B. pattern recognition
C. abstraction
D. decomposition

47. A map app showing roads and landmarks but hiding trees and houses is an example of
A. decomposition
B. abstraction
C. encryption
D. debugging

48. Using variables instead of constants is an example of
A. abstraction in programming
B. hardware
C. an error
D. decomposition

49. Calling a built-in function by name without knowing its internals is
A. a loop
B. a logical error
C. abstraction
D. a syntax error

50. A generalized solution can
A. work only once
B. never be reused
C. handle only one case
D. handle similar problems, increasing reusability

51. The order of steps for a generalized solution is: identify core problem, extract common patterns, develop generic solution and
A. print results
B. test with different scenarios
C. compile
D. delete the problem

52. Modular design breaks a system into
A. smaller interchangeable parts called modules
B. random files
C. one big block
D. hardware only

53. Steps of modular design: define modules, design interfaces, implement modules, integrate modules and
A. ignore modules
B. print modules
C. delete modules
D. test modules

54. A dry run means
A. compiling code
B. running on hardware
C. manually checking an algorithm's execution with specific inputs
D. deleting code

55. In the dry run for finding the largest number in [3,1,4,1,5,9,2,6], the final value of max is
A. 9
B. 6
C. 3
D. 5

56. A trace table records
A. only the final output
B. values of variables at each step of the algorithm
C. the programmer's name
D. hardware details

57. There are two main kinds of errors: syntax errors and
A. power errors
B. hardware errors
C. logical errors
D. network errors

58. Syntax errors are mistakes in
A. reasoning
B. hardware
C. power supply
D. the structure of an expression or statement

59. The email "amjadali@gmail" is an example of a
A. hardware error
B. syntax error
C. logical error
D. correct email

60. A total of $100 + $150 + $200 calculated as $1000 is an example of a
A. logical error
B. syntax error
C. hardware error
D. no error

61. Which activity is based on personal preference rather than algorithmic logic?
A. Checking if a number is prime
B. Calculating a square root
C. Deciding what to eat for dinner
D. Sorting numbers

Unit 3: Programming Fundamentals

65 MCQs

1. Website development is split into two segments:
A. front-end and back-end
B. client and customer only
C. hardware and software
D. input and output

2. Front-end development is also called
A. server-side
B. client-side
C. network-side
D. database-side

3. Back-end development is also called
A. browser-side
B. user-side
C. server-side
D. client-side

4. Languages used for front-end development are
A. C only
B. Ruby, Python and PHP
C. SQL only
D. HTML, CSS and JavaScript

5. Languages commonly used for back-end development include
A. Ruby, Python and PHP
B. CSS only
C. Paint
D. HTML and CSS only

6. Which of the following is primarily associated with front-end development?
A. Server management
B. Database design
C. Memory management
D. User interface and design

7. Back-end developers take care of
A. fonts only
B. image layout
C. databases and server logic
D. button colours

8. When a customer places an order, the order information goes from
A. CSS to HTML
B. front-end to back-end
C. back-end to front-end
D. database to CSS

9. Responsive design adjusts a website's layout to
A. different screen sizes
B. different servers
C. different colours only
D. different languages

10. Responsive design scales items using
A. fixed pixel values only
B. percentages rather than fixed pixel values
C. no values
D. random values

11. To take an email address in a form, the required attribute is
A. type="mail" B. type="text-mail"
C. type="email" D. type="address"

12. A radio button allows the user to choose
A. multiple options B. no option
C. any text **D. only one option from a list**

13. Radio buttons are best for
A. free text
B. multiple selections
C. mutually exclusive choices such as gender
D. dates

14. Checkboxes allow users to select
A. no choice **B. multiple choices from a group**
C. only one choice D. only text

15. The input type used to create a drop-down list uses the tag
A. <select> B. <radio> C. <check> D. <drop>

16. The attribute that tells a form where to send the data is
A. type B. name C. method **D. action**

17. The attribute that states the way of submitting form data (e.g. post) is
A. id B. action **C. method** D. type

18. The input type that takes a selected date is
A. tel **B. date** C. text D. time

19. A large box to write details such as the reason for a visit is created with
A. <textarea> B. <input>
C. <select> D. <table>

20. The input type that clears all fields of a form is
A. submit B. clear C. button **D. reset**

21. The input type that sends form information to a server is
A. radio B. reset **C. submit** D. checkbox

22. The tag that marks the beginning and end of a table is
A. <th> **B. <table>** C. <td> D. <tr>

23. The tag that creates a row in a table is
A. <tr> B. <td> C. <th> D. <tbody>

24. The tag for a table's header cell (bold and centred) is
A. <td> B. <tr> C. <caption> **D. <th>**

25. The tag for an ordinary table data cell is
A. <th> **B. <td>** C. <table> D. <tr>

26. The tag that adds a heading or description to a table is
A. <tfoot> B. <thead> C. <title> **D. <caption>**

27. The attributes that make a cell span several columns or rows are
A. merge and join B. span and cell
C. colspan and rowspan D. rowspan only

28. The CSS property that determines the link between borders of neighbouring cells is
A. border-collapse B. border-link
C. border-margin D. border-width

29. Setting border-collapse to "collapse" makes borders
A. disappear B. thicker
C. combine into a single line D. stay separate

30. The distance between a cell's border and its content is called
A. caption B. margin
C. cell spacing **D. padding**

31. The space among borders of neighbouring cells is known as
A. header **B. cell spacing**
C. padding D. caption

32. An element's style during an animation is specified by
A. @keyframes B. @highlight
C. @anchor D. @style

33. In @keyframes, each frame's position is given as a
A. tag name B. colour name
C. percentage from 0% to 100% D. number of pixels

34. The CSS property used to apply an animation is
A. move **B. animation**
C. motion D. transform-style

35. The tag is used to
A. make text bold
B. create a table
C. create an animation
D. group and style other elements as a single unit

36. Without JavaScript, a webpage content update needs
A. a page refresh B. no action
C. a new browser D. a new server

37. JavaScript is used to add _____ to webpages.
A. hardware **B. interactivity**
C. cables D. power supply

38. Conventional websites made with only HTML and CSS are
A. interactive B. responsive only
C. dynamic **D. static**

39. The index of the first element in a JavaScript array is
A. 0 B. 1 C. 2 D. -1

40. To access the third element of myArray, use
A. myArray[3] B. myArray[1]
C. myArray[2] D. myArray[0]

41. A JavaScript array can store
A. only one data type **B. different types of data in one array**
C. only strings D. only numbers

42. The method that adds an item to the end of an array is
A. push() B. concat() C. slice() D. pop()

43. The method that removes an item from the end of an array is
A. toString() B. push()
C. slice() **D. pop()**

44. The property that gives the number of items in an array is
A. count B. size **C. length** D. total

45. indexOf() in an array
A. joins two arrays **B. returns the index of a given element**
C. adds an element D. removes an element

46. concat() is used to
A. merge two arrays B. sort an array
C. split an array D. delete an array

47. slice(2, 4) on [3,5,7,9] returns
A. [5, 7] B. [3, 5] C. [9] **D. [7, 9]**

48. oddNumbers = [3,5,7,9]; after oddNumbers.push(11), oddNumbers.indexOf(11) returns
A. 0 B. 5 **C. 4** D. 3

49. The sum of the first 10 positive integers is
A. 55 B. 100 C. 45 D. 50

50. document.getElementById("id") is used to
A. delete a file **B. access an HTML element by its ID**
C. add a CSS style D. create an array

51. The tag for an unordered list is
A. B. <dl> C. **D. **

52. The tag for an ordered (numbered) list is
A. B. <dl> **C. ** D.

53. Each item in a list is written with the tag
**A. ** B. C. D. <item>

54. A block of code that is used repeatedly for a particular operation is a
A. constant B. variable **C. function** D. comment

55. A list is an
A. variable B. function
C. array only **D. Abstract Data Type (ADT)**

56. In an array, elements are stored in memory at
A. random disks **B. contiguous locations**
C. no location D. non-contiguous locations only

57. In a list, memory locations are
A. always contiguous B. absent
C. fixed **D. not necessarily contiguous**

58. Searching a list by checking every item one by one is called
A. linear (sequential) search B. bubble sort
C. merge sort D. binary search

59. A unit test is used to
A. deploy code
B. validate syntax only
C. test individual parts of the code for correctness
D. style the user interface

60. A unit test for findItem("milk") on an array containing milk expects
A. false **B. true** C. an error D. null

61. A unit test for a non-existing item such as "eggs" expects
A. false B. undefined only
C. an error D. true

62. A breakpoint
A. adds a comment
B. compiles code
C. deletes a line
D. pauses the application at a chosen line so the code can be examined

63. A watchpoint
A. deletes a variable
B. starts the program
C. pauses the program when a rule on a variable or expression is met
D. pauses at a fixed line always

64. In debug mode, Step-Over is used for
A. compiling code **B. line by line execution**
C. deleting code D. finishing the program at once

65. To manually stop JavaScript execution at a certain point, you can use
A. console.log() B. stop
C. debugger D. break

Unit 4: Data and Analysis

72 MCQs

1. Data science is an interdisciplinary field of mathematics, statistics and
A. physics **B. computer science**
C. history D. art

2. Data science can work with
A. only unstructured data B. only structured data
C. structured as well as unstructured data D. no data

3. Predicting a disease from X-rays is a use of data science in
A. healthcare B. sports
C. education D. entertainment

4. Fraud detection in banks is a use of data science in
A. airline B. education C. sports **D. finance**

5. A recommender system is a tool that
A. repairs hardware
B. draws pictures
C. recommends products, services or information based on past behaviour and interests
D. stores passwords

6. Sentiment analysis identifies
A. positive, negative or neutral sentiments in reviews
B. viruses
C. faulty hardware
D. network speed

7. In 1950, the Turing Test was proposed by
A. Tim Berners-Lee B. Charles Babbage
C. Bill Gates **D. Alan Turing**

8. The Turing Test measures
A. a CPU's speed
B. a machine's ability to exhibit intelligent behaviour
C. memory size
D. network bandwidth

9. Artificial Intelligence is the ability of a machine to
A. exhibit human-like behaviour such as problem solving and understanding language
B. connect to the internet only
C. store data
D. print documents

10. NLP stands for
A. Network Link Protocol B. Natural Logic Processing
C. New Language Program **D. Natural Language Processing**

11. ChatGPT and chatbots are examples of
A. databases B. computer vision
C. NLP D. robotics only

12. The face recognition feature in smartphones uses
A. spreadsheets **B. computer vision**
C. NLP D. reinforcement only

13. Which AI field enables smartphones to recognise faces and unlock devices?
A. Neural networks only B. Deep learning only
C. NLP **D. Computer vision**

14. Automation industry uses computers and robots to perform tasks
A. manually B. only with humans
C. automatically without human intervention D. slowly

15. The entire scope of data science and AI is based on algorithms developed in
A. machine learning B. graphics
C. word processing D. networking

16. Automated fraud detection is an example of
A. manual auditing **B. machine learning**
C. photo editing D. word processing

17. Machine learning is a subset of
A. web design B. databases
C. artificial intelligence D. networking

18. Which framework is important in machine learning?
A. WordPad B. Excel
C. Photoshop **D. TensorFlow**

19. Deep learning uses layers of
A. artificial neural networks B. databases
C. web pages D. spreadsheets

20. A neural network is a system designed to work like
A. a calculator **B. the human brain**
C. a router D. a printer

21. The three models of machine learning are supervised, unsupervised and
A. manual B. static
C. deep **D. reinforcement**

22. In supervised learning, the machine is given
A. no data B. random noise
C. labelled data D. unlabelled data

23. Labelled data means
A. questions provided with their correct answers
B. questions without answers
C. random numbers
D. blank files

24. In unsupervised learning, the machine is given
A. rewards only **B. unlabelled data**
C. labelled data D. penalties only

25. Unsupervised learning identifies patterns and divides data into
A. groups based on similarities and differences
B. penalties
C. labelled answers
D. rewards

26. In reinforcement learning, machines are trained using
A. no feedback B. unlabelled data only
C. labelled data only **D. positive or negative feedback**

27. The key terms of reinforcement learning are agent, environment, actions, rewards and
A. labels **B. penalties** C. clusters D. tables

28. The primary function of rewards and penalties in reinforcement learning is
A. classifying outcomes B. labelling data
C. improving action choices D. evaluating performance only

29. Learning to play chess by winning and losing moves is an example of
A. none of these **B. reinforcement learning**
C. unsupervised learning D. supervised learning

30. Training a toy robot to find its way out of a maze is
A. unsupervised learning B. supervised learning
C. none of these **D. reinforcement learning**

31. Sorting a basket of apples and bananas using given examples is
A. supervised learning B. unsupervised learning
C. reinforcement learning D. none of these

32. Grouping Lego blocks by colour without labels is
A. none of these B. supervised learning
C. unsupervised learning D. reinforcement learning

33. Categorising customer feedback into positive, negative or neutral (with labelled examples) suits
A. reinforcement learning B. unsupervised learning
C. deep learning only **D. supervised learning**

34. If an agent must achieve a goal, we use
A. unsupervised learning **B. reinforcement learning**
C. none D. supervised learning

35. In the machine learning process, cleaned data is first split into
A. training data and testing data B. text and images
C. files and folders D. rows and columns

36. The model learns patterns in the
A. testing set only B. hardware
C. training set D. output

37. The output of artificial intelligence systems is to
A. produce reports only **B. mimic human behaviour**
C. produce charts only D. store data

38. The output of machine learning is
A. prediction and classification B. only charts
C. mimicking humans D. insight and reports

39. The output of data science is
A. prediction only B. voice only
C. robots **D. insight, reports and visualization**

40. Churn prediction finds the possibility that
A. a server will fail
B. a product is cheap
C. a customer will stop using a company's services or products
D. a customer will buy more

41. Keeping existing customers loyal is usually
A. impossible B. less beneficial than getting new ones
C. useless **D. more beneficial than getting new ones**

42. Behavioral segmentation divides customers into groups based on their
A. behaviour B. name C. age only D. city only

43. Data visualization is
A. deleting data
B. the graphical representation of data and information
C. storage of data
D. encrypting data

44. A bar chart is used to
A. show correlation B. show proportions of a whole
C. compare discrete values D. show trends over time

45. A line chart is used to display
A. distributions of one value B. matrix colours
C. proportions of a whole **D. trends of data over time**

46. A pie chart represents
A. proportions of categories in a whole B. trends over time
C. distribution D. correlation

47. A scatter plot displays
A. trends over years
B. the relationship between numerical variables
C. matrix intensity
D. proportions

48. A histogram shows
A. trends over time
B. proportions
C. the distribution of a single numerical value
D. relationship between two variables

49. A box plot summarises data using
A. minimum, first quartile, median, third quartile and maximum
B. mode only
C. colours
D. mean only

50. A box plot is also called
A. bubble plot B. bar plot
C. line plot **D. box-and-whisker plot**

51. A heatmap represents data in matrix form using
A. pie slices B. bar height
C. colour intensity D. line slopes

52. A bubble chart is similar to a scatter plot but adds a third variable shown by
A. chart title **B. the size of the bubble**
C. colour of the axis D. line thickness

53. Quantitative visualization represents
A. numerical data B. categories only
C. locations only D. text only

54. Categorical visualization represents data that falls into
A. locations B. numbers only
C. distinct categories D. time

55. Temporal visualization displays data that
A. is geographic **B. changes over time**
C. is categorical D. is unstructured

56. Spatial visualization represents data related to
A. numbers only B. categories
C. time **D. physical locations or spaces**

57. Multivariate visualization represents data with
A. only time **B. more than two variables**
C. one variable D. no variable

58. Interactive visualization allows users to interact with data through
A. paper printouts B. books
C. dashboards and filters D. posters

59. Network diagrams, tree maps and word clouds are tools of
A. information visualization B. quantitative visualization
C. temporal visualization D. spatial visualization

60. A database is a collection of related data stored in the form of
A. sounds B. images only
C. folders only **D. tables**

61. Data in a database is retrieved using
A. JPEG files **B. SQL queries**
C. CSS styles D. HTML tags

62. The data science life cycle is a(n)
A. single step B. random process
C. iterative process D. one-time process

63. The first stage of the data science life cycle is
A. Problem definition B. Data analysis
C. Data collection D. Model deployment

64. In problem definition, KPI stands for
A. Key Process Input B. Known Problem Index
C. Key Programming Interface **D. Key Performance Indicator**

65. A KPI is
A. a database
B. a measurable target to track progress and success
C. a programming language
D. a type of chart

66. In data collection, APIs are
A. operating systems
B. charts
C. small programs that act like messengers between software
D. databases

67. API stands for
A. Application Programming Interface B. Application Process Interface
C. Applied Program Interface D. Automatic Program Input

68. Data cleaning is also called
A. data collection B. data deployment
C. data modelling **D. data preprocessing**

69. Which stage ensures a model's accuracy, reliability and compliance with privacy rules?
A. Maintenance and monitoring B. Data analysis
C. Model evaluation D. Model deployment

70. Which stage sets up the working model in a website, app or database?
A. Data collection B. Data cleaning
C. Problem definition **D. Model deployment**

71. Partial deployment means the model is
A. deleted **B. deployed in small steps to test it first**
C. never deployed D. deployed twice

72. Which is the key characteristic of the data cleaning stage?
A. Error removal and data organisation B. Data collection
C. Model deployment D. Pattern identification

Unit 5: Applications of Computer Science

54 MCQs

1. IoT stands for
A. Internet of Things B. Interface of Things
C. Internet of Technology D. Input of Things

2. The technology that provides automation in manufacturing, healthcare, home and traffic monitoring is
A. Blockchain B. Cloud computing
C. IoT D. Robotics

3. The number of foundational components of IoT is
A. three **B. five** C. seven D. four

4. The foundational components of IoT are sensors/devices, user interface, cloud, connectivity and
A. scanning B. printing
C. drawing **D. data processing**

5. In an IoT system, data from surroundings is collected by
A. sensors/devices B. cloud
C. user interface D. connectivity

6. The IoT component that lets users access and control IoT devices is the
A. sensor **B. user interface**
C. cloud D. connectivity

7. In IoT, data collected from devices is stored on the
A. keyboard B. printer **C. cloud** D. paper

8. IoT devices connect to the cloud through
A. keyboards
B. paper letters
C. radio only
D. cellular networks, satellite, Wi-Fi, Bluetooth or WAN

9. Wearable bands that monitor heart rate and calories are examples of
A. cloud storage B. robots
C. IoT wearables D. blockchain

10. Smart beds in hospitals monitor
A. the weather **B. vital signs of patients in real time**
C. the building D. only food

11. IoT in traffic monitoring helps to
A. monitor and analyse real-time traffic and improve traffic flow
B. block roads
C. remove cameras
D. increase traffic jams

12. Smart hotels using IoT can
A. never use sensors
B. remove electricity
C. stop guests entering
D. adjust room temperature and lighting automatically

13. A digital key sent to a guest's phone to open the room is an IoT feature in
A. traffic **B. hospitality**
C. healthcare D. farming

14. A smart grid differs from a traditional grid because it uses
A. different transformers
B. no electricity
C. different transmission lines
D. IoT devices that communicate with each other and the consumer

15. Traditional grids generate estimated bills whereas smart grids generate
A. accurate bills by measuring real-time usage
B. fixed bills
C. random bills
D. no bills

16. In smart farming, sensors monitor
A. only rainfall
B. only cost
C. light, humidity, temperature, moisture and soil acidity
D. only wind

17. A blockchain is
A. a type of robot
B. a printer
C. a CPU
D. a digital ledger of transactions that continuously grows

18. Blockchain is safe for sensitive transactions because
A. blocks can be edited easily
B. it is difficult to modify or delete a block once added
C. it is offline
D. it has no records

19. The technology used for management of supply chain is
A. Blockchain B. Cloud computing
C. IoT D. AI assistant

20. Blockchain helps to protect
A. only hardware B. only roads
C. copyright and intellectual property D. only buildings

21. In voting, blockchain makes voting
A. slower always
B. unsafe
C. more expensive
D. safer, more transparent and privacy-protecting

22. The best-known cryptocurrency is
A. Bitcoin B. Euro C. Rupee D. Dollar

23. Cryptocurrency is a
A. paper currency
B. digital (virtual) currency without intermediaries like banks
C. credit card
D. coin

24. Cryptocurrency works through a
A. single computer
B. post office
C. peer-to-peer global network without a central authority
D. central bank server only

25. In a peer-to-peer network
A. no sharing
B. all computers have the same capabilities and no central server is needed
C. one central server is needed
D. only one computer

26. The technology that enabled the existence of cryptocurrency is
A. Cloud computing B. Robotics
C. IoT **D. Blockchain**

27. Cloud computing is the delivery of
A. computing services over the Internet B. only books
C. only electricity D. paper services

28. Cloud computing is an alternative to
A. typing B. mobile phones
C. on-premises computing D. printing

29. A benefit of cloud computing is
A. higher hardware cost **B. cost reduction**
C. slower access D. no scalability

30. In cloud computing, hardware maintenance is the responsibility of
A. the cloud provider B. nobody
C. the user D. the government

31. Scalability in cloud computing means
A. fixed capacity only B. no growth
C. only buying hardware **D. scaling up or down as needs change**

32. The most common use of cloud computing is
A. education B. voting
C. file storage D. gaming

33. Speech recognition converts
A. images into text **B. human speech into text or commands**
C. voice into fingerprints D. text into speech

34. Voice recognition is a
A. biometric system B. word processor
C. network D. database

35. Voice recognition verifies a person's identity using
A. fingerprint
B. signature
C. face
D. unique voice features such as tone and pitch

36. Which is a dictation app for mobile phones?
A. Excel B. VLC **C. Gboard** D. Paint

37. Siri, Cortana and Alexa are
A. search engines only **B. AI assistants**
C. databases D. operating systems

38. The virtual assistant developed by Microsoft is
A. Cortana B. Siri C. Alexa D. Bixby

39. NLP is a branch of AI that
A. repairs networks
B. makes hardware
C. builds robots
D. gives computers the ability to understand text and spoken words like humans

40. Branch of AI that understands text and spoken words like humans is
A. Language Translation B. Digital Language Processing
C. Natural Language Processing D. Robotics

41. Spam is
A. unwanted junk email sent in bulk B. a spreadsheet
C. a file type D. important email

42. NLP email filtering works by
A. deleting all emails
B. detecting certain words or phrases that signal spam
C. printing emails
D. reading all emails by hand

43. The probable next words shown as we type in a search bar are called
A. document analysis B. internet suggestion
C. sentiment analysis **D. predictive text**

44. Sentiment analysis determines whether the tone of a text is
A. old or new B. big or small
C. positive, negative or neutral D. long or short

45. Robotics is a combination of AI and
A. engineering B. medicine
C. cooking D. history

46. Roomba is a popular
A. surgical robot B. farming robot
C. rescue robot **D. autonomous vacuum cleaner robot**

47. Robots in space exploration can work without
A. programming **B. food, water or oxygen**
C. instructions D. electricity

48. Bias in AI means
A. fast processing
B. low cost
C. unfairness or discrimination against someone
D. high accuracy

49. AI bias can result when the training data is
A. incorrect, incomplete or biased B. complete and fair
C. very large D. very clean

50. In 2015, Amazon's AI hiring algorithm favoured
A. women over men B. young over old
C. men over women D. no one

51. Violation of protection of personal data is called a
A. cache **B. privacy breach**
C. deepfake D. chatbot

52. AI systems used to spread propaganda are an example of
A. privacy protection B. voice recognition
C. cloud storage **D. social manipulation and misinformation**

53. Realistic but fake AI-generated videos are called
A. privacy breach videos **B. deepfake videos**
C. misinformation videos D. social manipulation videos

54. AI designers must ensure
A. fairness, transparency and impartiality B. secrecy of harm
C. profit only D. bias

Unit 6: Impacts of Computing

46 MCQs

1. Technology addiction is also known as
A. software piracy **B. digital or internet addiction**
C. memory loss D. hardware failure

2. Technology addiction refers to
A. occasional use of devices
B. avoiding all technology
C. using technology only for work
D. excessive and compulsive use of devices like phones, games and social media

3. Technology addiction can worsen
A. depression and anxiety B. grades
C. physical fitness D. friendships

4. Excessive screen time commonly causes
A. better social skills B. better grades
C. social isolation and loneliness D. more physical activity

5. Which of these is NOT a way to protect personal information online?
A. Using strong passwords **B. Sharing your passwords with friends**
C. Keeping privacy settings updated D. Being alert for scams

6. GDPR is a technology/privacy law of
A. Pakistan B. China **C. Europe** D. the U.S.

7. CCPA is a privacy law of
A. the U.S. (California) B. India
C. Europe D. Japan

8. Which is a beneficial use of the internet?
A. Cyberbullying B. Spreading misinformation
C. Increasing online fraud **D. Access to educational resources**

9. Criminals use the internet for hacking, identity theft, online fraud and
A. banking only
B. spreading malware
C. gaming only
D. teaching

10. A scam that tricks people into giving personal information by pretending to be trustworthy is
A. phishing
B. backup
C. encryption
D. antivirus

11. Fake websites are designed to
A. speed up the internet
B. store backups
C. protect users
D. look real but steal information or spread malware

12. Stealing sensitive information, intellectual property and government secrets by nations is
A. cyber banking
B. cyber gaming
C. cyber espionage
D. cyber education

13. Spyware is software that
A. spies on your activity and sends personal info to unauthorised people
B. protects your device
C. speeds up your computer
D. removes viruses

14. Spyware can do all of the following EXCEPT
A. see what you type
B. remember passwords
C. take screenshots
D. improve your device performance

15. Cookies are
A. operating systems
B. antivirus programs
C. tiny files saved on your device to remember what you do online
D. viruses

16. Cloud computing is the use of
A. only CDs
B. servers, storage and software over the internet
C. only paper
D. only local hardware

17. A public cloud is
A. a private network for personal use
B. a secure boot process
C. a cloud used by a single organisation
D. a cloud service offered to the general public by a third-party provider

18. A private cloud is
A. a cloud environment exclusively used by a single organisation
B. a cloud shared by the public
C. a cloud of social media
D. a free cloud

19. AWS is an example of a
A. operating system
B. private cloud
C. public cloud provider
D. antivirus

20. Data encryption is the process of
A. deleting data
B. converting data into a coded format to prevent unauthorised access
C. compressing data only
D. copying data

21. IAM stands for
A. Internal Access Memory
B. Identity and Account Mail
C. Identity and Access Management
D. Internet Access Method

22. MFA stands for
A. multiple file access
B. multi-factor authentication
C. manual firewall access
D. main file archive

23. Firewall rules, network segmentation and VPC are used for
A. network security
B. cooking
C. gaming
D. education

24. Secure boot ensures
A. no startup
B. free software
C. faster startup only
D. only trusted software is loaded at startup

25. A firewall is a security system that
A. prints documents
B. plays music
C. protects computers and networks from unauthorised access
D. stores photos

26. 2FA stands for
A. second firewall access
B. two-file access
C. two-form account
D. two-factor authentication

27. A VPN
A. slows the internet only
B. encrypts your internet connection
C. deletes viruses
D. is a type of virus

28. Cybersecurity is the practice of protecting
A. computer systems, networks and data from unauthorised access and attacks
B. only phones
C. only buildings
D. only hardware

29. The CIA triad of information security is confidentiality, integrity and
A. authentication
B. availability
C. accuracy
D. authority

30. The primary goal of cybersecurity is to
A. protect computer systems and networks
B. create social media platforms
C. develop new software
D. increase internet speed

31. Cybercrime laws
A. allow hacking
B. stop the internet
C. increase spam
D. define cybercrimes and set punishments for offenders

32. Flooding a website with traffic to make it unusable is a
A. VPN
B. firewall
C. DDoS attack
D. backup

33. DDoS stands for
A. Distributed Data of Service
B. Direct Denial of Software
C. Data Denial of Service
D. Distributed Denial of Service

34. Cybercrimes can be reported to
A. only friends
B. only the criminal
C. law enforcement agencies, ISPs, banks and online portals
D. no one

35. Cyberbullying is when someone uses the internet or digital devices to
A. pay others
B. hurt, harass or intimidate others
C. teach others
D. help others

36. Victims of cyberbullying often experience
A. anxiety, depression and low self-esteem
B. improved health
C. better focus
D. high confidence

37. A strategy to prevent cyberbullying is
A. encouraging trolls
B. allowing anonymous attacks
C. education and awareness about digital literacy
D. ignoring it

38. Anonymous reporting systems allow
A. criminals to hide
B. victims and witnesses to report cyberbullying
C. spam to spread
D. hackers to log in

39. Producing and using technology harms the environment through
A. clean air
B. more trees
C. less pollution
D. energy use and electronic waste

40. E-waste is
A. discarded electronic devices with harmful materials
B. glass waste
C. food waste
D. paper waste

41. The digital divide means
A. a type of software
B. everyone has equal access
C. a broken screen
D. some people have less access to technology like the internet

42. The digital divide limits access to
A. fresh air
B. electricity only
C. online education, healthcare and job opportunities
D. sunlight

43. The access divide includes infrastructure and
A. participation **B. affordability**
C. literacy D. relevance

44. The usage divide includes digital literacy and
A. relevance of content B. affordability
C. infrastructure D. cost of cables

45. The global divide refers to
A. difference in weather
B. difference in languages only
C. worldwide disparity in access to technology between richer and poorer countries
D. difference in time zones

46. Students can help minimise the digital divide by
A. lowering device prices
B. providing technology training and support to those who need it
C. opening more social accounts
D. developing new games

Unit 7: Digital Literacy

48 MCQs

1. Digital literacy is the ability to
A. avoid technology
B. use digital technologies to access, evaluate and create information
C. write code only
D. repair computers only

2. Which term means using digital technology to access information, evaluate it and convert it into an appealing format?
A. Information B. Social media
C. Literacy **D. Digital literacy**

3. Facebook was introduced in
A. 2005 B. 2010 **C. 2004** D. 2006

4. YouTube was introduced in
A. 2005 B. 2004 C. 2010 D. 2006

5. Twitter was introduced in
A. 2010 **B. 2006** C. 2005 D. 2004

6. Instagram was introduced in
A. 2010 B. 2004 C. 2012 D. 2006

7. The most reliable and authentic traditional source of information is
A. rumours B. social posts
C. random websites **D. books**

8. The first viral video on the internet was the
A. "Baby Shark" (2016) B. "Gangnam Style" (2012)
C. "Dancing Baby" animation (1996) D. "Cat Video" (2005)

9. The term "digital native" describes
A. web developers only B. people who never use the internet
C. old computers **D. people who grew up with the internet**

10. Information that is not in books or online can be collected by
A. surveys and Google Forms B. copying
C. guessing D. ignoring

11. A survey is used for
A. event registration only
B. quizzes only
C. research and large-scale data collection and statistical analysis
D. small polls only

12. A Google Form is used for
A. billboards
B. small-scale data collection, event registration, feedback and quick polls
C. statistical analysis only
D. large-scale research only

13. The ability to collect, understand and evaluate information from various sources is
A. technical skills B. collaboration
C. communication **D. digital search/information literacy**

14. Installing Zoom, WhatsApp or MS Teams is an example of
A. technical skills B. billboard design
C. key idea extraction D. ethics

15. Online behaviour, etiquette and netiquette belong to
A. search literacy B. technical skills
C. communication D. hardware

16. Online meetings, document sharing and shared projects are part of
A. technical skills **B. collaboration**
C. search literacy D. ethics

17. The final product of the digital literacy process is
A. digital content B. a printer
C. a cable D. a router

18. Which is NOT a form of digital content?
A. An infographic **B. A paper receipt**
C. A blog post D. A YouTube video

19. Ethics and responsibility in digital content involve respecting
A. only fame
B. only speed
C. cultural, social and religious boundaries
D. only profit

20. Key ideas extraction means
A. deleting all information
B. copying everything
C. presenting every detail
D. choosing the most important information to present

21. In a birthday invitation post, the key information is
A. theme only B. costumes
C. date, time and venue D. weather

22. The steps of key idea extraction in order are: collect, understand, extract, evaluate and
A. hide **B. convert to digital content**
C. delete D. copy

23. The first step of converting information into graphics is to
A. print the poster B. check local laws
C. decide the number of design elements **D. decide an appropriate tool for designing**

24. A good poster should have a
A. clear purpose and simple, attractive design
B. no message
C. cluttered design
D. unreadable text

25. The colour scheme of a poster should be
A. random B. always red
C. always black **D. according to its topic/genre**

26. Billboards are made
A. tiny
B. only for the internet
C. huge in size to attract audiences on the go
D. only for homes

27. A billboard should contain the
A. logo and brand recognition elements B. many unrelated pictures
C. full life history D. long paragraphs

28. The primary purpose of billboard design is to
A. entertain only
B. grab the attention of the audience
C. showcase every company detail
D. provide full details

29. In billboard design, picture elements should not
A. be large
B. be used at all
C. be colourful
D. overshadow the key message

30. Disinformation is
A. a type of virus
B. true information
C. deliberate false information spread to mislead
D. an honest mistake

31. Misinformation is
A. an honest mistake spread in ignorance
B. deliberate false information
C. a type of spam
D. true information

32. Social media may spread wrong information because it is
A. controlled by one person
B. not directly controlled by any country or local law
C. always accurate
D. offline

33. To upload videos on YouTube, you need to create a
A. channel B. podcast C. page D. billboard

34. A YouTube channel handle is
A. the profile picture
B. the string you can type in the browser to see the channel's public content
C. the channel password
D. the subscribe button

35. Facebook is mainly used for
A. email only
B. podcasts only
C. short text only
D. networking and marketing

36. Facebook Marketplace is used to
A. host podcasts
B. upload channels
C. buy or sell new or used products
D. send email

37. Instagram relies heavily on
A. emails
B. tweets
C. podcasts
D. hashtags for discovery

38. Instagram is a hub for
A. influencer marketing and sponsored content
B. banking
C. coding
D. email

39. A podcast is
A. a single image
B. a series of audio or video files released on a regular schedule
C. a spreadsheet
D. a text message

40. The role of a podcast host is to
A. give only their own opinion
B. criticise the guest
C. facilitate discussion and guide the conversation
D. praise the guest only

41. Podcast audio can be edited using
A. Notepad
B. Browser
C. Calculator
D. CapCut, InShot, Audacity or Anchor

42. X is the new name of
A. Facebook B. YouTube **C. Twitter** D. Instagram

43. Twitter was renamed X in
A. February 2004
B. July 2023
C. March 2006
D. October 2010

44. Tweets are limited to
A. 280 characters
B. 500 characters
C. 1000 characters
D. 140 characters

45. Which platform is mostly used for educational tutorials and entertainment videos?
A. Podcast **B. YouTube** C. Facebook D. Instagram

46. Which platform is mostly used for news, discussion and opinions?
A. Instagram
B. Facebook
C. X (Twitter)
D. YouTube

47. Short videos shared on Twitter were called
A. Shorts B. Stories C. Reels **D. Vines**

48. Live streaming on Twitter was offered through
A. Periscope B. Skype C. Zoom D. Meerkat

Unit 8: Entrepreneurship in the Digital Age

64 MCQs

1. Quantitative research deals with
A. pictures only
B. feelings only
C. numbers and statistics
D. words and meanings

2. Qualitative research deals with
A. words and meanings
B. tables only
C. numbers and statistics
D. graphs only

3. The primary goal of quantitative research is to
A. gather subjective insights
B. test or confirm theories and assumptions
C. understand concepts and experiences
D. explore cultural patterns

4. Qualitative research is used to
A. build graphs
B. calculate averages
C. test hypotheses
D. understand concepts, thoughts or experiences

5. Which is a qualitative data collection method?
A. Experiments
B. Interviews
C. Statistical analysis
D. Closed surveys

6. Which is a quantitative data collection method?
A. Focus groups
B. Literature review
C. Experiments
D. Ethnography

7. An experiment is a situation in which
A. people talk freely
B. words are counted
C. books are read
D. variables are controlled and manipulated to establish cause-and-effect

8. A focus group is
A. a discussion among a group of people to gather opinions
B. a type of experiment
C. a closed survey
D. a statistical test

9. Ethnography means
A. running an experiment
B. writing a survey
C. doing a calculation
D. participating in a community for a long time to observe its culture and behaviour

10. A mixed-methods approach
A. uses no data
B. combines qualitative and quantitative research
C. uses only words
D. uses only numbers

11. Quantitative data is sometimes called
A. mixed data
B. soft data
C. hard data
D. weak data

12. Quantitative data is analysed using tools such as
A. Excel, SPSS or R
B. Notepad
C. Calculator only
D. Paint

13. Which is NOT calculated in quantitative analysis?
A. Correlation between variables
B. Reliability and validity
C. Average scores (means)
D. Themes and patterns in interviews

14. Qualitative content analysis tracks
A. average scores
B. the occurrence, position and meaning of words or phrases
C. reliability
D. correlation

15. Thematic analysis examines data to identify
A. the average score
B. the mean
C. main themes and patterns
D. the correlation coefficient

16. Quantitative research is at risk of biases including information bias and
A. sampling bias B. interview bias only
C. discourse bias D. thematic bias

17. Sampling bias occurs when
A. the sample is perfect
B. the sample is too large
C. the sample is random
D. the sample does not represent the population

18. Primary data is data
A. from published books **B. specifically collected for your purpose**
C. from old reports D. already available from others

19. A questionnaire is
A. a list of questions used to gather data from respondents
B. a website
C. a type of software
D. a bar chart

20. A survey is
A. a database
B. a single question
C. a research method collecting data from a group of people
D. a chart

21. A common problem of self-administered questionnaires is
A. experimenter bias B. high response rate
C. high cost **D. nonresponse bias**

22. An advantage of researcher-administered questionnaires is
A. high response rates and clarification of unclear questions
B. complete anonymity
C. low cost
D. no bias

23. A disadvantage of researcher-administered questionnaires is that they are
A. anonymous B. fast
C. costly and time-consuming D. cheap

24. Closed-ended questions offer respondents
A. no choices **B. a fixed set of choices**
C. unlimited answers D. a blank page

25. Open-ended questions allow respondents to answer
A. with numbers only B. yes or no only
C. from fixed options **D. in their own words**

26. Which type of question is best for detailed feedback?
A. Closed-ended question B. Binary question
C. Open-ended question D. Likert scale question

27. A nominal variable has categories that
A. cannot be ranked B. are ratios
C. are numbers D. can be ranked

28. An ordinal variable has categories that
A. have no order **B. can be ranked**
C. cannot be ranked D. are all the same

29. Likert scale questions use rating scales with
A. 5 or 7 points B. no points
C. 2 points D. 100 points

30. Four or more Likert-type questions can be treated as
A. binary data B. nominal data
C. quantitative interval data D. qualitative data

31. A disadvantage of open-ended questions is that they
A. are too simple
B. are always valid
C. limit answers
D. require more time and effort to answer and analyse

32. Good questions should be reliable and
A. ambiguous **B. valid** C. complex D. long

33. Double negatives in questions are
A. recommended
B. clearer
C. harder to understand and should be avoided
D. required

34. A leading question
A. has no answer
B. is short and balanced
C. is neutral
D. guides respondents towards a specific answer

35. Market validation is the process of
A. determining if there is a need for your product in your target market
B. designing a logo
C. hiring staff
D. printing a product

36. The number of steps to determine market validity in the text is
A. ten **B. five** C. three D. seven

37. The first step of market validation is to
A. assess market size
B. test the product
C. write down goals, assumptions and hypotheses
D. conduct interviews

38. Which step of market validation involves estimating market size and share?
A. Assessing market size and share B. Writing down goals
C. Conducting customer interviews D. Testing your product

39. Researching monthly search volume of related terms helps to
A. hire staff B. print posters
C. design a logo **D. gauge market validity of an idea**

40. Alpha testing is done by
A. investors **B. internal employees in a staged setting**
C. external public users D. customers only

41. Beta testing is done by
A. internal employees only B. the developers only
C. a limited group of real external users D. nobody

42. Customer profiling is
A. selling products
B. printing customer lists
C. designing apps
D. analysing customer demographics, behaviour and needs to create customer profiles

43. Psychographic data relates to
A. attitudes, lifestyle, values and interests
B. city and country
C. age and income
D. purchase history

44. Behavioral segmentation looks at
A. city and region
B. purchase history, loyalty and product usage
C. age and sex
D. values only

45. CAC stands for
A. Customer Acquisition Cost B. Company Account Cost
C. Customer Account Code D. Customer Action Chart

46. Customer acquisition cost is the money spent on
A. taxes
B. buying a building
C. marketing and sales to attract a single customer
D. paying employees

47. Customer churn refers to
A. gaining customers **B. losing customers**
C. buying products D. hiring staff

48. Strong customer profiles help reduce
A. marketing B. sales
C. profit **D. customer churn**

49. A business pitch is
A. a presentation that conveys the value of an idea to investors
B. a game
C. a type of software
D. a bill

50. The component of a business pitch that explains how the business will make money is the
A. Problem statement B. Market opportunity
C. Business model D. Solution

51. Market opportunity in a pitch describes
A. the competitors
B. unique features
C. the business model
D. the potential market size and growth prospects

52. An elevator pitch is
A. a legal contract
B. a brief persuasive speech to spark interest in your idea
C. a financial report
D. a long business plan

53. The components of an elevator pitch are hook, brief introduction, unique selling proposition and
A. call to action B. detailed finance
C. long history D. team list

54. The primary purpose of the "hook" in an elevator pitch is to
A. show detailed finances **B. grab attention and spark interest**
C. explain the competition D. introduce all team members

55. USP stands for
A. Universal Sales Plan B. Unique Service Price
C. Unique Selling Proposition D. Unified Sales Process

56. A call to action in an elevator pitch is
A. a list of competitors
B. a financial statement
C. a story
D. a clear request or next step, such as asking for a meeting

57. A business plan is
A. a comprehensive document detailing strategy, market analysis and finances
B. a single sentence
C. a 60-second speech
D. a short slide deck

58. A pitch document is
A. a long detailed document
B. a concise presentation, often in slides, to quickly convey key aspects
C. a tax return
D. a legal contract

59. Business plans are typically about
A. 5 slides B. 1–2 pages
C. 20–40 pages D. 1 slide

60. Pitch documents are usually about
A. 20–40 pages B. 100 pages
C. 500 pages **D. 10–15 slides or 2–3 pages**

61. The main difference between a business plan and a pitch document is that
A. a business plan is detailed for internal planning while a pitch is a quick introduction
B. a business plan has fewer details
C. a pitch is longer
D. they are identical

62. Which is NOT a key component of an elevator pitch?
A. Call to action B. Unique selling proposition
C. Brief introduction **D. Detailed financial projections**

63. Active listening in pitching helps to
A. hide the plan **B. adapt based on audience feedback**
C. skip questions D. make the pitch longer

64. Storytelling in a pitch makes it
A. unclear B. boring
C. more relatable and memorable D. longer

Federal Board Past Paper MCQs

48 MCQs from FBISE SSC-II Computer papers (original option order). Figure-based questions are left out.

Annual 2025 paper (Paper code 2SA-II 25007)

1. The primary purpose of a flowchart in programming is
A. To execute a program **B. To represent the logic**
C. To compile the code D. To store data

2. Which keyword is used to declare a constant variable in C?
A. int B. var **C. const** D. static

3. The output of the statement printf("%d", 5+2); is
A. 7 B. 5+2 C. error D. %d7

4. Which function is used for input handling in C?
A. scanf() B. printf() C. cin>> D. system()

5. Which loop executes at least once?
A. for loop B. while loop
C. do-while loop D. switch

6. Which statement is suitable for making a two-way decision?
A. if **B. if else** C. switch D. Nested if

7. Which loop is most efficient for iterating a known number of times?
A. do-while loop B. goto statement
C. while loop **D. for loop**

8. Which logic gate produces a HIGH output only when both inputs are LOW?
A. NOR B. AND C. XOR D. OR

9. Which Boolean expression correctly represents an AND gate?
A. A . B B. A + B C. A □ B D. A'

10. Which tag is used to create a hyperlink in HTML?
A. <link> B. <href> **C. <a>** D. <p>

11. What displays the title of a web page in the browser tab?
A. <Head> B. <H1>
C. <Title> D. <Alt text>

12. Which HTML element is essential for a paragraph within a webpage?
A. /para B. <paragraph>
C. <para> **D. <p>**

13. Choose the correct HTML element for the largest heading:
A. <h6> **B. <h1>** C. <heading> D. <head>

Annual 2026, Set B (Paper code 2SA-I 26007, 20071 (B))

1. Which tool provides coding, debugging and compiling in one place?
A. Translator B. Text Editor
C. IDE D. Repository

2. Which component of system software controls input and output operations?
A. Word processor **B. Device driver**
C. Spreadsheet D. Web browser

3. Which number system uses digits from 0 to 7?
A. Binary **B. Octal**
C. Decimal D. Hexadecimal

4. The algorithm commonly used to arrange data in ascending or descending order is
A. Sorting B. Searching C. Traversal D. Merging

5. What is meant by abstraction in computer science?
A. Writing long programs **B. Hiding unnecessary details**
C. Using hardware only D. Storing and copying data

6. Which field enables machines to perform tasks that normally require human intelligence?
A. Data Science B. Computer Networks
C. Database Management **D. Artificial Intelligence**

7. Different properties or statistics in data are represented in a circular chart in:
A. Pie chart B. Bar chart
C. Line chart D. Scatter plot

8. What does Blockchain mainly provide?
A. Fast internet speed
B. Hardware control
C. Secure and distributed record keeping
D. Graphical interface for better visual representation

9. Which AI application enables computers to understand human language?
A. Robotics
B. Natural Language Processing
C. Computer Networks Setting
D. Database Management System

10. Which factor mainly contributes to the digital divide?
A. Lack of electricity and gas
B. High computer speed
C. Too much data and information
D. Limited access to internet and devices

11. Which of the following is an example of cyberbullying?
A. Sending polite messages and email
B. Watching and sharing videos
C. Posting hurtful comments online
D. Reading news and articles on websites

12. What is the main purpose of using digital tools in market research?
A. To collect and analyze customer information
B. To design logos
C. To write and execute programs
D. To repair hardware and software

13. Gathering of numerical data and statistics is a part of:
A. Qualitative research
B. Quantitative research
C. Individual interviews
D. Narrative study

Annual 2026, Set D (Paper code 2SA-I 26007, 22071 (D))

1. Which software helps programmers store and manage code versions?
A. Code Compiler
B. Code Debugger
C. Code repository
D. Code Translator

2. Which system software manages data transfer between RAM and storage devices?
A. Operating system
B. Presentation software
C. Antivirus
D. Text editor

3. What does the hexadecimal number system consist of?
A. Digits 0-15
B. 10 Alphabets and 6 digits
C. Digits 0-9 and letters A-F
D. Digits 1-6 and letter A-J

4. Which algorithm checks each element one by one to find a value?
A. Binary search
B. Linear search
C. Quick sort
D. Merge sort

5. Which feature helps divide a program into smaller reusable parts?
A. Compilation
B. Debugging
C. Modularity
D. Execution

6. Which type of machine learning uses labeled data?
A. Unsupervised learning
B. Reinforcement learning
C. Deep learning
D. Supervised learning

7. Which data visualization method shows parts of a whole?
A. Line chart
B. Histogram
C. Scatter plot
D. Pie chart

8. Which field commonly uses Blockchain technology?
A. Online Video editing
B. Cryptocurrency systems
C. Text formatting
D. Online Gaming

9. Which AI field is responsible for creating intelligent robots?
A. Robotics
B. Data Science
C. Cloud Computing
D. Cyber Security

10. How does the digital divide affect access to education?
A. It improves learning for all
B. It limits access to online resources
C. It removes the need of textbooks
D. It increases computer games

11. Which action can help prevent cyberbullying?
A. Sharing passwords
B. Blocking and reporting abusive users
C. Ignoring privacy settings
D. Responding angrily and writing long emails

12. Why is online research important for a business idea?
A. It helps understand customer needs
B. It increases hardware speed
C. It reduces software cost
D. It replaces marketing and promotion

13. If a researcher only surveys their friends for a business idea, what can occur?
A. Perfect representation
B. Objective data
C. Random sampling
D. Selection bias

Annual 2026, Set M (Paper code 2SA-I 26007, 29071 (M))

1. Which solution can help reduce the digital divide?
A. Limiting internet use
B. Closing public libraries
C. Reducing technology education
D. Providing affordable internet access

2. Which strategy helps create a safer online environment?
A. Using strong privacy settings
B. Posting personal information publicly
C. Accepting all friend requests
D. Uploading family pictures

3. Which digital source provides real-time customer opinions?
A. Printed books
B. Offline notes
C. Social media platforms
D. Archived files

4. Which hardware interaction is controlled by system software?
A. Typing a document
B. Printing a file
C. Editing an image
D. Creating slides

5. Why are encoding schemes used in computer systems?
A. To store programs only
B. To represent data in binary form
C. To increase hardware size
D. To design software

6. Which algorithm divides a list into smaller parts to sort efficiently?
A. Bubble sort
B. Insertion sort
C. Quick sort
D. Linear search

7. Which machine learning method groups similar data without prior labels?
A. Supervised learning
B. Unsupervised learning
C. Classification
D. Regression

8. Which feature makes Blockchain data difficult to alter?
A. Encryption and decentralization
B. Centralized control and no passwords
C. Simple passwords
D. Single-user access

9. Which of the following is a real-world application of NLP?
A. Face detection
B. Image compression
C. Game rendering
D. Language translation