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Computer Science Grade 9 — Chapter 3

Programming Fundamentals

by Public Library

Independent practice MCQs from the supplied Class 9 Computer Science notes pack. Total: 50 questions. Each item has four options, the correct letter, and a short explanation.

A. Important / Main Topics

1. What does HTML stand for?

(A) Hypertext Markup Language
(B) High-Level Machine Language
(C) Hyperlink Text Management Language
(D) Home Tool Markup Language

Correct Answer: A

Explanation: HTML stands for Hypertext Markup Language, the language used to define and display content in the form of a webpage.

2. Which HTML tag is used to define the title of a webpage?

(A) `‹head›`
(B) `‹title›`
(C) `‹body›`
(D) `‹html›`

Correct Answer: B

Explanation: `‹title›` — this correctly answers the question.

3. What is the correct way to create a hyperlink in HTML?

(A) `‹link href="url"›text‹/link›`
(B) `‹href="url"›text‹/href›`
(C) `‹a href="url"›text‹/a›`
(D) `‹url›text‹/url›`

Correct Answer: C

Explanation: Hyperlinks are created with the `‹a›` tag-pair and the `href` attribute.

4. Which CSS property is used to add a border to a table?

(A) `table-border`
(B) `outline`
(C) `edge`
(D) `border`

Correct Answer: D

Explanation: The `border` property is used to add a border to a.

5. What is the correct way to declare a variable in JavaScript?

(A) `var x = 5;`
(B) `variable x = 5;`
(C) `int x = 5;`
(D) `x := 5;`

Correct Answer: A

Explanation: In JavaScript, variables are declared with the `var` keyword.

6. Which JavaScript function is used to display an alert box?

(A) `message()`
(B) `alert()`
(C) `popup()`

(D) `msg()`

Correct Answer: B

Explanation: The `alert()` function displays an alert box with a message.

7. What does the `‹br›` tag do in HTML?

(A) Creates a bold text
(B) Creates a bullet list
(C) Inserts a line break
(D) Inserts an image

Correct Answer: C

Explanation: The `‹br›` tag is used to split a sentence into multiple lines.

8. Which JavaScript operator gives the remainder of a division?

(A) `/`
(B) `*`
(C) `+`
(D) `%`

Correct Answer: D

Explanation: `%` — this correctly answers the question.

9. What is the correct syntax for a `for` loop in JavaScript?

(A) `for (i = 0; i ‹ 10; i++)`
(B) `for (i ‹ 10; i++)`
(C) `for i = 0 to 10`
(D) `loop (i = 0; i ‹ 10; i++)`

Correct Answer: A

Explanation: `for (i = 0; i ‹ 10; i++)` — this correctly answers the question.

10. Which HTML tag is used to create an ordered list?

(A) `‹ul›`
(B) `‹ol›`
(C) `‹li›`
(D) `‹list›`

Correct Answer: B

Explanation: `‹ol›` — this correctly answers the question.

11. What is the primary purpose of CSS?

(A) To structure webpage content
(B) To add interactivity to webpages
(C) To control the presentation and layout of webpages
(D) To manage databases

Correct Answer: C

Explanation: To control the presentation and layout of webpages — this correctly answers the question.

12. Which HTML tag is used to insert an image into a webpage?

(A) `‹picture›`
(B) `‹image›`
(C) `‹src›`
(D) `‹img›`

Correct Answer: D

Explanation: The `‹img›` tag is used to insert an image, with attributes like `src` and `alt`.

13. What is the correct way to add a comment in HTML?

(A) `‹!-- This is a comment --›`
(B) `// This is a comment`
(C) `/* This is a comment */`

(D) `# This is a comment`

Correct Answer: A

Explanation: HTML comments are written between `‹!--` and `--›`.

14. Which JavaScript keyword is used to define a function?

(A) `def`
(B) `function`
(C) `func`
(D) `define`

Correct Answer: B

Explanation: The `function` keyword is used to define a function in JavaScript.

15. What will be the output of `10 % 3`?

(A) 3
(B) 0
(C) 1
(D) 10

Correct Answer: C

Explanation: 10 % 3 = 1 (the remainder when 10 is divided by 3).

16. Which CSS property is used to change the text color of an element?

(A) `text-color`
(B) `font-color`
(C) `text-style`
(D) `color`

Correct Answer: D

Explanation: `color` — this correctly answers the question.

17. What is the purpose of the `‹ul›` tag in HTML?

(A) Creates an unordered list
(B) Creates an ordered list
(C) Creates a table
(D) Creates a paragraph

Correct Answer: A

Explanation: Creates an unordered list — this correctly answers the question.

18. In JavaScript, what is the correct way to write a conditional statement?

(A) `if x › 5 then`
(B) `if (x › 5) { }`
(C) `if x › 5 { }`
(D) `when (x › 5) { }`

Correct Answer: B

Explanation: The correct syntax for an if statement is `if (condition) { }`.

19. What does the `‹video›` tag do in HTML?

(A) Creates a video file
(B) Links to a video file
(C) Embeds a video player in a webpage
(D) Downloads a video file

Correct Answer: C

Explanation: Embeds a video player in a webpage — this correctly answers the question.

20. Which JavaScript method is used to display text on a webpage?

(A) `console.log()`
(B) `alert()`
(C) `prompt()`

(D) `document.write()`

Correct Answer: D

Explanation: `document.write()` — this correctly answers the question.

21. What is the difference between `‹ol›` and `‹ul›` tags in HTML?

(A) `‹ol›` creates numbers; `‹ul›` creates bullets
(B) `‹ol›` creates bullets; `‹ul›` creates numbers
(C) Both create bullet lists
(D) Both create numbered lists

Correct Answer: A

Explanation: `‹ol›` creates numbers; `‹ul›` creates bullets — this correctly answers the question.

22. What is the purpose of the `prompt()` function in JavaScript?

(A) To display an alert box
(B) To take user input
(C) To change the background color
(D) To create a loop

Correct Answer: B

Explanation: The `prompt()` function pops up a message window that takes input from the user.

23. Which CSS property is used to center text within an element?

(A) `align: center;`
(B) `center: text;`
(C) `text-align: center;`
(D) `text-center: true;`

Correct Answer: C

Explanation: `text-align: center;` — this correctly answers the question.

24. What is the purpose of the `alt` attribute in an `‹img›` tag?

(A) Sets the image size
(B) Sets the image border
(C) Sets the image position
(D) Provides a description of the image

Correct Answer: D

Explanation: The `alt` parameter provides a description of the image, which is important for accessibility.

25. What is the output of the following JavaScript code? `var a = 5; var b = 2; document.write(a % b);`

(A) 1
(B) 2.5
(C) 0
(D) 5

Correct Answer: A

Explanation: 5 % 2 = 1 (the remainder when 5 is divided by 2).

B. Less Important / Secondary Topics

26. What is the DOM (Document Object Model)?

(A) A standard that represents an HTML document as a tree of nodes
(B) A type of database
(C) A programming language
(D) A network protocol

Correct Answer: A

Explanation: The DOM is a standard which provides mutual interpretation where grammar of a language can be associated with and can coexist on various operating systems.

27. How many times will the inner loop execute if the outer loop runs 4 times and the inner loop runs 3 times for each outer iteration?

(A) 7
(B) 12
(C) 4
(D) 3

Correct Answer: B

Explanation: 12 — this correctly answers the question.

28. What is the purpose of the ` ` entity in HTML?

(A) A new line
(B) A tab space
(C) A non-breaking space
(D) A paragraph break

Correct Answer: C

Explanation: A non-breaking space — this correctly answers the question.

29. Which of the following is the correct function definition that returns the sum of two numbers?

(A) `function add(a, b) { a + b; }`
(B) `def add(a, b) { return a + b; }`
(C) `function add(a, b) { sum = a + b; }`
(D) `function add(a, b) { return a + b; }`

Correct Answer: D

Explanation: The correct function definition with return is `function add(a, b) { return a + b; }`.

30. What is the primary difference between an array and a variable in JavaScript?

(A) A variable stores a single value; an array stores multiple values
(B) A variable stores multiple values; an array stores a single value
(C) Both store multiple values
(D) Both store single values

Correct Answer: A

Explanation: A variable stores a single value, while an array is a data type that can hold multiple values under one name.

31. What is the correct way to add a background image to a webpage using CSS?

(A) `image: url('image.jpg');`
(B) `background-image: url('image.jpg');`
(C) `background: image.jpg;`
(D) `bg-image: url('image.jpg');`

Correct Answer: B

Explanation: The `background-image: url('...')` property sets an image as the background.

32. What is the purpose of the `target="_blank"` attribute in an HTML link?

(A) Opens the link in the same tab
(B) Opens the link in a new browser
(C) Opens the link in a new tab or window
(D) Downloads the linked file

Correct Answer: C

Explanation: Opens the link in a new tab or window — this correctly answers the question.

33. What is the output of the following JavaScript code? `var x = 10; if (x › 5) { document.write("Hello"); } else { document.write("Bye"); }`

(A) Bye
(B) Nothing
(C) Error

(D) Hello

Correct Answer: D

Explanation: Since x = 10 and 10 › 5 is true, "Hello" is displayed.

34. What is the purpose of the `‹table›` tag in HTML?

(A) Creates a table
(B) Creates a list
(C) Creates a paragraph
(D) Creates an image

Correct Answer: A

Explanation: Creates a table — this correctly answers the question.

35. Which JavaScript method is used to take user input?

(A) `alert()`
(B) `prompt()`
(C) `document.write()`
(D) `console.log()`

Correct Answer: B

Explanation: The `prompt()` function is used to take input from the user.

36. A student wants to display their name on a webpage. Which JavaScript function should they use?

(A) `alert()`
(B) `prompt()`
(C) `document.write()`
(D) `console.log()`

Correct Answer: C

Explanation: `document.write()` — this correctly answers the question.

37. A user clicks a button on a webpage and a popup appears asking "Are you sure?". Which JavaScript function is responsible for this?

(A) `document.write()`
(B) `prompt()`
(C) `confirm()`
(D) `alert()`

Correct Answer: D

Explanation: `alert()` — this correctly answers the question.

38. A student wants to create a list of their favorite food items with numbers. Which HTML tag should they use?

(A) `‹ol›`
(B) `‹ul›`
(C) `‹li›`
(D) `‹list›`

Correct Answer: A

Explanation: `‹ol›` — this correctly answers the question.

39. What will be the output of the following code? `var a = 5; var b = 2; var c = a % b; document.write(c);`

(A) 2.5
(B) 1
(C) 0
(D) 5

Correct Answer: B

Explanation: 5 % 2 = 1 (the remainder when 5 is divided by 2).

40. A student wants to add a background image to their webpage that stays fixed while scrolling. Which CSS property should they use?

(A) `background-image`
(B) `background-color`
(C) `background-attachment: fixed`
(D) `background-repeat`

Correct Answer: C

Explanation: `background-attachment: fixed` — this correctly answers the question.

41. In a nested loop, how many times will the inner loop execute if the outer loop runs 4 times and the inner loop runs 3 times for each outer iteration?

(A) 7
(B) 4
(C) 3
(D) 12

Correct Answer: D

Explanation: 12 — this correctly answers the question.

42. A student wants to check if a number is greater than 10. Which JavaScript statement should they use?

(A) `if (number › 10) { }`
(B) `if number › 10 then { }`
(C) `if (number ›› 10) { }`
(D) `when (number › 10) { }`

Correct Answer: A

Explanation: The correct syntax for an if statement is `if (number › 10) { }`.

43. What does the ` ` entity represent in HTML?

(A) A new line
(B) A non-breaking space
(C) A tab space
(D) A paragraph break

Correct Answer: B

Explanation: A non-breaking space — this correctly answers the question.

44. A student wants to create a function that calculates the sum of two numbers. Which is the correct function definition?

(A) `function add(a, b) { a + b; }`
(B) `def add(a, b) { return a + b; }`
(C) `function add(a, b) { return a + b; }`
(D) `function add(a, b) { sum = a + b; }`

Correct Answer: C

Explanation: The correct function definition with return is `function add(a, b) { return a + b; }`.

45. Which CSS property is used to center text within an element?

(A) `align: center;`
(B) `center: text;`
(C) `text-center: true;`
(D) `text-align: center;`

Correct Answer: D

Explanation: `text-align: center;` — this correctly answers the question.

46. A student wants to create a webpage with a heading, a paragraph, and an image. Which HTML code is correct?

(A) `‹h1›Heading‹/h1›‹p›Paragraph‹/p›‹img src="image.jpg"›`
(B) `‹h1›Heading‹/h1›‹p›Paragraph‹/p›‹image src="image.jpg"›`
(C) `‹heading›Heading‹/heading›‹p›Paragraph‹/p›‹img src="image.jpg"›`

(D) `‹h1›Heading‹/h1›‹paragraph›Paragraph‹/paragraph›‹img src="image.jpg"›`

Correct Answer: A

Explanation: The correct tags are `‹h1›` for heading, `‹p›` for paragraph, and `‹img›` for image.

47. What is the output of the following JavaScript code? `var x = 5; var y = 10; if (x › y) { document.write("A"); } else if (x ‹ y) { document.write("B"); } else { document.write("C"); }`

(A) A
(B) B
(C) C
(D) Error

Correct Answer: B

Explanation: Since x = 5 and y = 10, x ‹ y is true, so "B" is displayed.

48. Which of the following is the correct way to add a video clip to a website?

(A) `‹video src="video.mp4" controls›‹/video›`
(B) `‹media src="video.mp4" controls›‹/media›`
(C) `‹video›‹source src="video.mp4" type="video/mp4"›‹/video›`
(D) `‹movie src="video.mp4" controls›‹/movie›`

Correct Answer: C

Explanation: The `‹video›` tag with a `‹source›` tag specifies the video file and its type.

49. What is the purpose of the `id` attribute in HTML?

(A) To style an element
(B) To create a link
(C) To insert an image
(D) To uniquely identify an element

Correct Answer: D

Explanation: To uniquely identify an element — this correctly answers the question.

50. Which of the following correctly describes the relationship between HTML, CSS, and JavaScript?

(A) HTML provides structure, CSS provides presentation, JavaScript provides interactivity
(B) HTML provides presentation, CSS provides structure, JavaScript provides interactivity
(C) HTML provides interactivity, CSS provides structure, JavaScript provides presentation
(D) All three provide structure

Correct Answer: A

Explanation: HTML defines the content structure, CSS controls the presentation and layout, and JavaScript adds inter.