



## CREST Cyber Olympiad (CCO)

### Previous Year Paper

# Class 10 (Set - A)

**Time Allowed: 1 hour**

**Maximum Marks: 60**

- There are a total of **50 questions** in this booklet comprising **2 sections** namely the **Computer & IT and Achievers' Section** consisting of **40 questions (1 mark each) & 10 questions (2 marks each)** respectively.
- There is **no negative marking**. The use of a calculator is not permitted.
- There is **only ONE correct option** to a given question.
- The use of unfair means may result in the cancellation of the exam. Any such instances must be reported at **+91-98182-94134** or **info@crestolympiads.com**

**DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO**

**FILL IN THE DETAILS**

Candidate Name: \_\_\_\_\_

Class: \_\_\_\_\_ Section: \_\_\_\_\_

CREST ID: \_\_\_\_\_

## Computers & IT (Each Question is 1 Mark)

- ISDN is a set of communication standards for simultaneous digital transmission of voice, video, data, and other network services over the traditional circuits of the public switched telephone network. What is the full form of ISDN?
  - Integrated Service Digital Network
  - Integrated Subscriber Digital Network
  - Indian Subscriber Digital Network
  - International Service Digital Network
- What is the main reason for the OSI model to be created?
  - To create a layered model larger than the DoD model.
  - So application developers can change only one layer's protocols at a time.
  - So different networks could communicate.
  - So Cisco could use the model.
- When a custom tab stop is set up in an MS Word document, what does Word do?
  - Clears all default tab stops
  - Does not clear any default tab stops
  - Clears all default tab stops to the right of custom tab stop
  - Clears all default tab stops to the left of the custom tab stop
- In MS-Word 2010, to switch between insert mode and overtype mode, which of the following options should be done?
  - Click to select the Use overtype mode checkbox
  - Click to select the Use the Insert key to control overtype mode checkbox
  - Double click the Insert status indicator on the status bar
  - Click caption on the insert menu
- Shivam has created a PowerPoint slide using pictures, shapes and text boxes that are used in large numbers and moving them together has become cumbersome. He wants to move them together. Which of the following will help him do this?
  - Tiling
  - Grouping
  - Converting to Image
  - None of the above
- In OSI network architecture, the routing is performed by which of the following layer?
  - Network layer
  - Data link layer
  - Session layer
  - Transport layer
- Which of the following statement(s) is/are true?
  - When issuing a request from an HTML form either a get method or a post method can be used. The form explicitly specifies which of the two is used
  - If the GET method is used, the data request string as if they were submitted using a URL
  - If the POST method is used, the data in the form are packaged as part of the request file. The server program obtains the data by reading the file
  - All of the above

8. Which of the following property of an anchor element signifies an element on which the user is currently clicking?
- link
  - visited
  - hover
  - active
9. What is part of a database that holds only one type of information?
- Report
  - Field
  - Record
  - File
10. What are the Different Views to Display a Table MS Access?
- Datasheet View
  - Design View
  - Pivot Table & Pivot Chart View
- Only 2
  - Only 2, 3
  - Only 3
  - 1, 2 and 3 are true
11. Which HTML tag is used to create a hyperlink in a webpage?
- <link>
  - <hyperlink>
  - <a>
  - <url>
12. What is used to specify the space between the boundary and content in a cell?
- Spacing
  - Cellpadding
  - Cellspacing
  - Align
13. Which of the following is the correct statement in context to Virtual Classrooms?
- Virtual Classroom is one of the significant features of E-shopping learning platform
  - Virtual Classroom is a teaching and learning environment where participants can interact, communicate, view and discuss
  - A Virtual Classroom is a private online meeting space for synchronous real-time activities
  - In Virtual Classrooms, students are limited to the courses available in their geography
14. Fill in the blank:  
Programs are executed on the basis of a priority number in a \_\_\_\_\_.
- batch processing system
  - multiprogramming system
  - time-sharing system
  - data-processing system
15. Fill in the blank:  
A numeric value can be treated as label value if \_\_\_\_\_ precedes it.
- Apostrophe (')
  - Exclamation (!)
  - Hash (#)
  - Tilde (~)
16. From where in MS PowerPoint, can we set the timing for each object?
- Slide show, custom transition
  - Slide show, Slide transition
  - Slide show, custom animation
  - View, slide sorter
17. A web browser is a software application for accessing information on the World Wide Web. Which of the following web browser does not have a graphical user interface?
- Microsoft Edge
  - Mac Safari
  - Linux
  - Lynx
18. Fill in the blanks:  
Using \_\_\_\_\_ and \_\_\_\_\_, we can protect our data from unauthorized access.
- Internet, Crackers
  - PIN numbers, Passwords
  - Hackers, Crackers
  - None of the above

19. When the database is organized in some fixed format of records of several than the model is known as Record-Based Data Model. Which of these is a valid record-based data model?
- Entity-Relationship model
  - Object-Oriented model
  - Relational model
  - Master-describing
20. Choose the incorrect statement as per the given statement:  
The target attribute in <form> tag can have one of the following values:
- `_blank` : Opens the linked document in an old window or old tab
  - `_self` : Opens the linked document in the same window/tab as it was clicked
  - `_parent` : Opens the linked document in the parent frame
  - `_top` : Opens the linked document in the full body of the window
21. Which of the following is true about RBAC (Role-Based Access Control)?
- It limits access based on user role and permissions
  - It assigns permissions randomly
  - It tracks user behavior
  - It is only used for security software
22. How does task switching in multitasking work?
- The OS runs all tasks at the same time
  - The OS switches between tasks rapidly to give the appearance of simultaneous execution
  - The OS pauses tasks to save resources and give the appearance of simultaneous execution
  - The OS assigns a specific processor to each task
23. Which of the following is often considered key digital evidence in cybercrime investigations involving communication?
- Photos
  - Emails and messages
  - Website layouts
  - Document templates
24. Network forensics investigates what aspect of digital forensics?
- Devices used in the crime
  - Hardware configuration
  - Specific emails
  - Data packets and communication through a network
25. How would a database handle multiple authors writing multiple books in a many-to-many relationship?
- By assigning one author to one book in each record
  - By creating a junction table that relates authors to books
  - By assigning multiple authors to one book
  - By limiting the number of authors per book
26. In web design, what does UI stand for?
- User Integration
  - User Interface
  - Unilateral Interaction
  - Universal Interaction
27. Which function from the math module returns the square root of a number?
- `math.pow()`
  - `math.sqrt()`
  - `math.square()`
  - `math.root()`
28. What is the purpose of `datetime.timedelta()`?
- It provides random access
  - Used to represent a time difference
  - It performs string manipulation
  - It returns a fixed value

29. Which of the following BEST describes a lambda function?
- A function without any parameters
  - A one-line anonymous function
  - A function that always returns None
  - A function with multiple return statements
30. In Microsoft Word, what is the purpose of the Track Changes feature?
- To allow others to edit the document without leaving a record
  - To compare two versions of a document
  - To automatically correct spelling and grammar
  - To track and display edits made by reviewers
31. What does packet loss most commonly result in?
- Higher throughput
  - Increased IP conflict
  - Network delay or data corruption
  - Better speed
32. Which model is involved when a large manufacturing company supplies raw materials to other company for production?
- B2B
  - C2B
  - C2C
  - B2C
33. Why are customer reviews important for e-commerce websites?
- They slow down the website loading
  - They reduce product availability
  - They influence buyer decisions and build trust
  - They remove products from stock
34. In an online store, which feature helps users view and compare available products?
- Order management system
  - Payment portal
  - Product listing and catalogue
  - Tracking system
35. What is a challenge faced during data integration in large e-commerce platforms?
- Making colourful product pages
  - Tracking physical delivery trucks
  - Combining data from various systems into a unified format
  - Offering discounts to loyal customers
36. In a for loop, which part is responsible for incrementing or decrementing the loop variable?
- Initialization
  - Condition check
  - Loop body
  - Update statement
37. In the flowchart for a basic calculator, how do you determine the operation (addition, subtraction, etc.) selected by the user?
- Ask the user for input
  - Check if the input number is even or odd
  - Use a decision block to check operation type
  - Skip this step
38. What is the result of the condition A AND B if A is false and B is true?
- 1
  - FALSE
  - Undefined
  - Error

39. Which of the following is not an application of Machine Learning in personalization?
- Product recommendations
  - Personalizing advertisements based on browsing history
  - Predicting stock market trends
  - Customizing search engine results

40. How can businesses implement green computing in their daily operations?
- By reducing the use of computers entirely
  - By utilizing virtual servers and reducing physical hardware
  - By manufacturing more devices
  - By increasing the complexity of software

## Achievers' Section (Each Question is 2 Marks)

41. Match the following:

	Column A		Column B
1.	Trojan horse	a.	Someone who breaks into someone else's computer system, often on a network; bypasses passwords or licenses in computer programs; or in other ways intentionally breaches computer security
2.	Logic bomb	b.	It is a network security system that monitors and controls incoming and outgoing network traffic based on predetermined security rules
3.	Cracker	c.	It is a piece of code intentionally inserted into a software

			system that will set off a malicious function when specified conditions are met
4.	Firewall	d.	It is a program downloaded and installed on a computer that appears harmless, but is, in fact, malicious

- 1 – c, 2 – a, 3 – d, 4 – b
- 1 – d, 2 – c, 3 – a, 4 – b
- 1 – b, 2 – c, 3 – a, 4 – d
- 1 – a, 2 – c, 3 – d, 4 – b

42. Which one of the following statements is false?
- The data dictionary is normally maintained by the database administrator.
  - Data elements in the database can be modified by changing the data dictionary.
  - The data dictionary contains the name and description of each data element
  - A data dictionary is a tool used exclusively by the database administrator.

43. Identify the term with the help of the description given below:

1. It is the creation of documents using page layout software on a personal computer
2. It was first used almost exclusively for print publications, but now it also assists in the creation of various forms of online content
3. The term is sometimes used to refer to processes that allow printing out paper copies of documents in a localized hardware scenario
4. It refers to the use of a digital desktop for laying out and constructing documents
  - a. CAI (Computer-Aided Instruction)
  - b. CAD (Computer-Aided Design)
  - c. CAL (Computer-Aided Learning)
  - d. DTP (Desk Top Publishing)

44. Fill in the blanks:

- i. Internet is a Global \_\_\_\_\_ Platform.
  - ii. Search engines use an extremely efficient software called spider is also known as \_\_\_\_\_.
  - iii. \_\_\_\_\_ operator broadens the search by including results which contain either 1 keyword or the other keyword or both.
  - iv. \_\_\_\_\_ is a set of rules which determines how the data is transferred over networks.
  - v. \_\_\_\_\_ is simply used for the purpose of file transfer over the Internet.
- a. (i) Interface  
(ii) Web scraping  
(iii) AND  
(iv) Protocol  
(v) SMTP
  - b. (i) Network  
(ii) Web automation  
(iii) NAND

- (iv) Protocol  
(v) HTTP
- c. (i) Network  
(ii) Web crawler  
(iii) OR  
(iv) Protocol  
(v) FTP
- d. (i) Interface  
(ii) Web browser  
(iii) NOT  
(iv) Protocol  
(v) TCP/IP

45. Which of the following statements are true?

**Statement 1:** The browser will display the bullets after the list of items using HTML code.

**Statement 2:** The default value for HTML <OL> tag is a filled circle.

**Statement 3:** In HTML, you can start the ordered list with a different number.

**Statement 4:** The HTML <IMG> tag is an empty element.

**Statement 5:** An image in a web page can be aligned with a HTML center tag.

- a. Only Statement 1 and Statement 2 are true
- b. Only Statement 2 and Statement 5 are true
- c. Only Statement 4 and Statement 5 are true
- d. Only Statement 3 and Statement 4 are true

46. Which of the following statements are true?

**Statement 1:** A table border will always be displayed by default even if the value for table border is not given.

**Statement 2:** Cellpadding is not the pixel space within a cell.

**Statement 3:** It is not possible to control the dimensions of individual table cells or rows.

**Statement 4:** We can give different colors to each cell in a table.

**Statement 5:** Spanning is useful for

displaying heading and titles in a continuous row or column.

- a. Only statement 2 is true
- b. Only statement 4 and statement 5 are true
- c. Statement 1, statement 3 and statement 4 are true
- d. All the given statements are true

47. Which of the following statements best defines the relationship between cybersecurity and digital forensics?

- a. Digital forensics and cybersecurity both aim to protect users from threats
- b. Cybersecurity and digital forensics are completely unrelated fields
- c. Digital forensics deals only with hardware, while cybersecurity deals with software
- d. Cybersecurity focuses on prevention, while digital forensics focuses on post-crime investigation

48. When embedding an object in a database, what can potentially happen to the database size?

- a. The database size remains unaffected
- b. The database size may increase significantly
- c. The database size will decrease
- d. The database size will remain constant

49. Which list comprehension creates a list of even numbers less than 6?

- a. `[x for x in range(6) if x % 2 == 0]`
- b. `[x for x in range(6) if x % 2 == 1]`
- c. `[x*2 for x in range(3)]`
- d. `[x for x in range(2, 6)]`

50. Which of these statements is true for the OR operator?

- a. It returns true if at least one condition is true
- b. It returns false only if both conditions are false
- c. It is used to negate a condition
- d. It only works with numerical data

## Answer Key

- |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. a  | 2. c  | 3. d  | 4. b  | 5. b  | 6. a  | 7. d  | 8. d  | 9. b  | 10. d |
| 11. a | 12. b | 13. b | 14. b | 15. a | 16. c | 17. d | 18. b | 19. c | 20. a |
| 21. a | 22. b | 23. b | 24. d | 25. b | 26. b | 27. b | 28. b | 29. c | 30. d |
| 31. c | 32. a | 33. c | 34. c | 35. c | 36. d | 37. c | 38. b | 39. c | 40. b |
| 41. b | 42. b | 43. d | 44. c | 45. d | 46. b | 47. d | 48. b | 49. a | 50. a |