



# CREST Cyber Olympiad (CCO)

Previous Year Paper (2022-23)

**Class 10 (Set - A)**

**Time Allowed: 1 hour**

**Maximum Marks: 60**

- Additional **10 minutes** will be allotted to fill up information on the OMR Sheet, before the start of the exam.
- Fill in all the mandatory fields clearly on the OMR Sheet.
- 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.
- Use **HB Pencil / Ball point pen (Blue / Black) only** for marking the correct choice of answers on the OMR Sheet.
- Rough work is to be done in the space provided in the test booklet. Extra plain sheet may be provided by the school for the rough work.
- The OMR Sheet is to be handed over to the invigilator at the end of the exam.
- No candidate is allowed to carry any textual material, printed or written, bits of paper, any electronic device, digital watches, etc. inside the examination hall.
- 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: \_\_\_\_\_

## Computer & 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
- In a MS PowerPoint presentation, the custom animation option can be applied to which of the following?
  - Font work gallery
  - Gallery
  - Texts
  - All of the above
- Which command will take you to the first slide of your presentation in MS PowerPoint?
  - Ctrl + End
  - Ctrl + Home
  - Next Slide Button
  - Page Up
- What is the disadvantage of wireless LAN?
  - Interference of transmissions
  - High rate of error
  - Slow transmission of data
  - All of the above
- Fill in the blank:  
In MS PowerPoint, shimmer, blinking background, and sparkle text are the types of \_\_\_\_\_.
  - Font styles
  - Font effects
  - Word art
  - Text effects
- To make a number turn into a label in MS Excel, which of the following symbol you should use before the number?
  - ”
  - 
  - “
  - ==
- In context to MS Excel, what is the name given to the cells in which comments are put?
  - Smart tip
  - Web tip
  - Soft tip
  - Cell tip
- To depict the logical flow in flowcharts, which one of the following is used?
  - Connector Circle
  - Arrow Sign
  - Parallelogram
  - Rectangle
- Fill in the blank:  
Serial ATA (Serial Advanced Technology Attachment or SATA) is a standard for connecting and transferring data from \_\_\_\_\_ to the computer system.
  - Network
  - Hard Drives
  - USB Drives
  - SD Cards
- Which of the following represents a relationship among a set of values in context to database?
  - Row
  - Table
  - Field
  - Column

11. What are the columns in a Microsoft Access table called?
- Rows
  - Records
  - Fields
  - Columns
12. Which of the following HTML tag(s) is/are used for a multi-line text input control?
- textml tag
  - text tag
  - textarea tag
  - Both b and c
13. The design of the DBMS depends on its architecture. A DBMS architecture can be seen as either single-tier or multi-tier. In a 3-tier architecture, what do you think are the 3 tiers?
- Server tier, Application tier, Database tier
  - Presentation tier, Application tier, Database tier
  - Presentation tier, Server tier, Database tier
  - Presentation tier, Application tier, Server tier
14. While working with HTML, is it possible to insert a table within another table?
- Yes, but there must be exactly 2 rows and 2 columns in first table
  - Yes, table can be inserted into cell of another table
  - Yes, but there must be no border in second table
  - Yes, but formatting of the second table is not possible
15. Which of the following database language allows you to access or maintain data in a database?
- DCL
  - DML
  - DDL
  - DAL
16. Fill in the blank:  
Voice over IP (Voice over Internet Protocol or "VoIP") technology converts voice calls from \_\_\_\_\_.
- Analog to digital
  - Digital to analog
  - Digital to digital
  - Analog to analog
17. Fill in the blank:  
To make the width of a table adjust to the current width of the viewer's browser window, you should specify a table width of \_\_\_\_\_.
- 100%
  - 640 pixels
  - 1024 pixels
  - Any of the above
18. In MS Access, what is the shortcut to open new database?
- CTRL + N
  - CTRL + O
  - ALT + F4
  - CTRL + S
19. Which of the following command centre of access files will appear when you create or open the MS Access database file?
- Database Window
  - Query Window
  - Design View Window
  - Switchboard
20. Which one of the following statements is correct?  
Statement A: Foreign key fields don't allow duplicate value.  
Statement B: In primary key field, you can enter duplicate value.
- Statement A is correct
  - Statement B is correct
  - Both statements A and B are correct
  - Neither statement A nor Statement B is correct

21. In MS Access, each field has a data type. What is the use of data type in a field?
- To indicate the type of data that can be stored in the field.
  - To indicate the type of table used.
  - To indicate from where information is taken.
  - To indicate the size of data.
22. Which of the following element(s) of an Excel Worksheet can be protected from accidental modification?
- Contents
  - Objects
  - Scenarios
  - All of the above
23. 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
24. Animation schemes can be applied to which of the following in a MS PowerPoint Presentation?
- All slides
  - Selected slides
  - Current slide
  - All of the above
25. Which international community passes judgement on appeals when someone complains that the IESG has failed?
- |         |         |
|---------|---------|
| a. IETF | b. W3C  |
| c. IAB  | d. IANA |
26. ICANN is a non-profit organisation responsible for coordinating the maintenance and procedures of several databases related to the namespaces and numerical spaces of the Internet, ensuring the network's stable and secure operation. All the domain extensions are monitored and regulated by ICANN. What is the acronym for ICANN?
- Internal Corporation for Assigned Numbers and Names
  - Internet Corporation from Assigned Names and Numbers
  - International Corporation from Assigned Numbers and Names
  - Internet Corporation for Assigned Names and Numbers
27. Which category of websites helps people in establishing social relationship and function like an online community of internet users?
- E-Shopping
  - Social Networking
  - Social Group
  - E-Reservation
28. In context to MS Access, which special data type has a fixed Field Length of 1 space?
- VAR
  - BOOLEAN
  - LONG
  - None of the above
29. Fill in the blank:  
In HTML, \_\_\_\_\_ attribute of an image tag is used to increase the space at the top of an image.
- |           |          |
|-----------|----------|
| a. TOP    | b. BEGIN |
| c. VSPACE | d. START |
30. Fill in the blank  
The tag which is used to create Hyperlinks in a web page is \_\_\_\_\_.
- |            |            |
|------------|------------|
| a. <HTML>  | b. <A>     |
| c. <ALINK> | d. <VLINK> |

- 31.** Identify the term with the help of the given description:  
Hacking a web server or taking control of another person's website.
- Web Hiking
  - Web Cracking
  - Web Hijacking
  - None of these
- 32.** Which of these is an advantage of chat rooms?
- All chat rooms are legitimate
  - You get unbiased opinions
  - You are sure that other people are being honest
  - All chat rooms are very secure
- 33.** Fill in the blanks:  
Chat rooms are places, usually, dedicated to a particular topic or shared interest, where you can \_\_\_\_\_ and \_\_\_\_\_ information with your colleagues online and in real time.
- Save, Retrieve
  - Communicate, Share
  - Share, Save
  - Retrieve, Communicate
- 34.** Complete the following sentence:  
A Logical Schema is \_\_\_\_\_.
- the entire database
  - a standard way of organizing information into accessible parts
  - how data is actually stored in a disk
  - All of the above
- 35.** Fill in the blanks:  
You can insert any image in your webpage by using the \_\_\_\_\_ tag, which is an \_\_\_\_\_ tag. It has no closing tag.
- < img >, Empty
  - < image >, Detailed
  - < image >, Empty
  - < img >, Detailed
- 36.** Identify the incorrect statement from the following:
- An HTML tag is bound by angle brackets. It always begins with a less than (<) sign and ends with a greater than (>) sign.
  - The ON tag indicates the start of the command and is written before the portion of the text to be formatted.
  - The OFF tag is the same as the ON tag, but has a backward slash (\) after the command.
  - Except few tags, most of the tags have their corresponding closing tags.
- 37.** You need to follow certain rules when working with HTML elements, some of them are listed below. Identify the incorrect rule:
- Element names are not case sensitive as lowercase and uppercase are treated as the same.
  - Attribute names are not case sensitive. Their values should always be enclosed in either double quotes (") or single quotes (').
  - You can use as much space between the tags as you want. The browsers ignore unknown elements and unknown attributes.
  - Element names can contain spaces and it is not necessary to close a tag.
- 38.** Due to inequality in access to the Internet and ICT, digitalisation is not happening equally all over the world. This is known as Digital Divide. What do you think is a possible strategy in bridging the digital divide?
- Social isolation
  - Digital literacy programs
  - Access to limited and quality knowledge
  - Gender inequality

39. Fill in the blanks:  
Blockchain is a digitally \_\_\_\_\_,  
\_\_\_\_\_ and \_\_\_\_\_ ledger that  
exists across a network and facilitates  
the process of recording transactions.
- Distributed, Centralised, Immutable
  - Undistributed, Decentralised,  
Immutable
  - Distributed, Decentralised,  
Immutable
  - Distributed, Centralised, Mutable

40. Datafication is a vital trend in  
Information Technology. It is the  
modification of human chores and  
tasks into data-driven technology.  
Which among the following options is  
not an example of Datafication?
- Digitisation
  - Netflix
  - Instagram
  - Banks

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

41. Which of the following statement(s)  
is/are incorrect in context to system  
security?
- In symmetric-key cryptography, the  
sender and the receiver of a  
message do not share a single key  
to encrypt and decrypt the  
message.
  - Generally, firewalls of organisations  
ban traffic on port number 23,  
which is used for an Internet  
application called Telnet. Telnet  
allows remote users to login to  
machines within the organisation.
  - Many packet filtering devices use  
the deep packet inspection (DPI) to  
examine packets for their header  
information as well as content.  
Though DPI can uncover malware  
such as worms within packets, data  
inspection by it has led to issues of  
privacy and censorship.
  - All are incorrect.
42. Which of the following statements are  
not true about public-key  
cryptography?
- In this method, a message is  
encrypted with a public key and  
decrypted with a private key.
  - Both the public and private keys are  
created as a pair, but the private  
key is kept secured so that no  
unauthorized person could decrypt  
the message.
  - Public and private keys are created  
using prime numbers through the  
RSA encryption technique.
  - If the keys are based on small  
prime numbers, it is very difficult for  
crackers to find them within a  
reasonable period of time.
43. Which of the following statements is  
not true about a firewall and packet  
filtering?
- At a basic level, a firewall is a  
packet filter device that monitors  
both outgoing and incoming  
packets in an organisation.
  - It is a combination of software and  
hardware that is usually placed  
inside the router that connects the  
organisation to the ISP and the  
Internet.
  - In a firewall, packet-level filtering  
can be applied to packets of  
different protocols and services, to  
packets with specific source and  
destination addresses, and to  
packets using specific port  
numbers.
  - In a firewall, application-level  
filtering cannot be applied to some  
applications like email.

44. When trying to access a URL, the following message is displayed on the browser:

Server Error 403.

What could be the reason for the message?

- a. The requested HTML file is not available.
- b. The path to the interpreter of the script file is invalid.
- c. The first line of the output from the script is not a valid HTTP header.
- d. The requested HTML file or CGI script has insufficient permission.

45. 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

46. Which of the following statements are true?

Statement 1: Internet is a network of networks which consists of inter-connected networks.

Statement 2: Graphics and video cannot be added to an HTML document.

Statement 3: The title of a document can contain maximum 64 characters.

Statement 4: Mozilla Firefox is a free web browser.

Statement 5: Windows Internet Explorer is also known as MSIE.

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

47. Find the errors in the following lines of HTML code and write the correct code:

```
< HTML >  
< HEAD >  
< TITLE > Cyber Olympiad  
< /HEAD >  
< /HEAD >  
< /TITLE >  
< /HTML >
```

a.  

```
< HTML >  
< HEAD >  
< TITLE > Cyber Olympiad  
< /HEAD >  
< /TITLE >  
< /HTML >
```

b.  

```
< HTML >  
< HEAD >  
< TITLE > Cyber Olympiad  
< /TITLE >  
< /HEAD >  
< /HTML >
```

c.  

```
< HTML >  
< HEAD >  
< TITLE > Cyber Olympiad  
< /HEAD >  
< /HEAD >  
< /HTML >
```

- d.
- ```
< HTML >
< HEAD >
< TITLE > Cyber Olympiad
< /HEAD >
< /TITLE >
< /HEAD >
< /HTML >
```

48. Which of the following statements are true?

Statement 1: Ethical hacking helps identify security vulnerabilities.

Statement 2: Using passwords we can safeguard our computers from unauthorized access.

Statement 3: Data backup basically means retrieving back lost and inaccessible data.

Statement 4: The term distance learning is being gradually replaced by virtual School.

- Only Statement 3 is true
- Statement 2 and Statement 3 are true
- Statement 1, Statement 2 and Statement 4 are true
- All the given statements are true

49. A table containing the definitions of different features exhibited by a DBMS is given below. Identify the name of the feature from the options given below: Data Summarizing, Data Sorting, Data Classification, Concurrency Control, Reduce Data Redundancy

|      | Description                                                                           |
|------|---------------------------------------------------------------------------------------|
| i.   | To categorize data on the basis of some conditions.                                   |
| ii.  | Arrangement of data in a proper sequence.                                             |
| iii. | Helps in controlling duplication of data, which in turn minimizes data inconsistency. |
| iv.  | To get the synopsis of data on the basis of some criteria.                            |

|    |                                                                                                                      |
|----|----------------------------------------------------------------------------------------------------------------------|
| v. | Allows multiple transactions to access and modify shared data at the same time without violating the data integrity. |
|----|----------------------------------------------------------------------------------------------------------------------|

- Reduce Data Redundancy
  - Data Sorting
  - Concurrency Control
  - Data Classification
  - Data Summarizing

- Data Classification
  - Data Sorting
  - Reduce Data Redundancy
  - Data Summarizing
  - Concurrency Control

- Data Sorting
  - Concurrency Control
  - Data Classification
  - Data Summarizing
  - Reduce Data Redundancy

- Concurrency Control
  - Data Classification
  - Data Summarizing
  - Reduce Data Redundancy
  - Data Sorting

50. Identify the incorrect statement from the following:

- Web browser contains the basic software you need in order to find, retrieve, view, and send information over the Internet
- Web browser includes software that lets you send and receive E-mails worldwide instantly
- You can read messages from newsgroups (or forums) about thousands of topics in which users share information and opinions
- The most popular browsers are outlook and Bing



## Answer Key

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