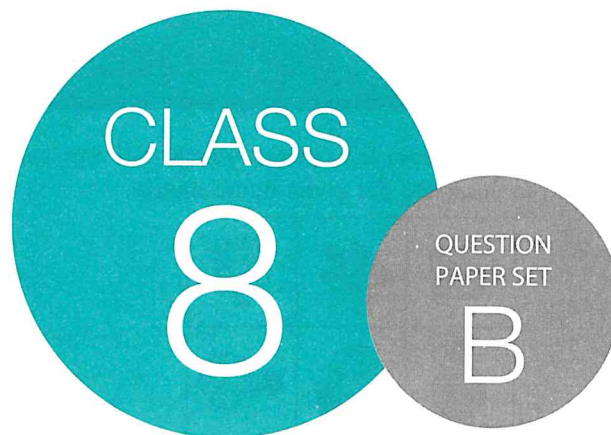


**SOF NATIONAL CYBER
OLYMPIAD 2019-20**



DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO

Total Questions: 50 | Time: 1 hr.

Name:.....

Section:..... SOF Olympiad Roll No.:..... Contact No.:.....

Guidelines for the Candidate

1. You will get additional ten minutes to fill up information about yourself on the OMR Sheet, before the start of the exam.
2. Write your **Name, School Code, Class, Section, Roll No.** and **Mobile Number** clearly on the **OMR Sheet** and do not forget to sign it. We will share your marks / result and other information related to SOF exams on your mobile number.
3. The Question Paper comprises three sections:
Logical Reasoning (10 Questions), **Computers and Information Technology** (35 Questions) and **Achievers Section** (5 Questions).
Each question in Achievers Section carries 3 marks, whereas all other questions carry one mark each.
4. All questions are compulsory. There is no negative marking. Use of calculator is not permitted.
5. There is only ONE correct answer. Choose only ONE option for an answer.
6. To mark your choice of answers by darkening the circles on the OMR Sheet, use **HB Pencil** or **Blue / Black ball point pen** only. E.g.

Q.16: Which of the following is a type of printer?

- A. Cathode Ray Tube B. Light Emitting Diode C. Thermal Flatbed D. Liquid Crystal Display

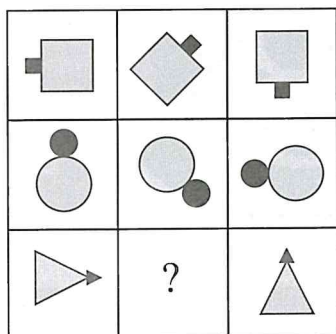
As the correct answer is option C, you must darken the circle corresponding to option C on the OMR Sheet.

16. (A) (B) (C) (D)

7. Rough work should be done in the blank space provided in this booklet.
8. Return the OMR Sheet to the invigilator at the end of the exam.
9. Please fill in your personal details in the space provided on this page before attempting the paper.

LOGICAL REASONING

1. Select a figure from the options which will replace the (?) to complete the given figure matrix.



- A.
- B.
- C.
- D.

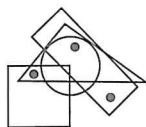
2. How many pairs of letters are there in the word DEPARTMENT which have as many letters between them in the word as in the English alphabets?

- A. Three
B. Two
C. Four
D. More than four

3. Select the odd one out.

- A. AEFJ
B. KOPT
C. EHIL
D. QUVZ

4. Select a figure from the options which satisfies the same conditions of placement of the dots as in the given figure.



- A.
- B.
- C.
- D.

5. Read the given information carefully and answer the question that follows.

Five ships J, K, L, M and N are to be unloaded on 5 consecutive days beginning from Monday to Friday.

- I. Each ship takes exactly one day to unload.
II. K must be unloaded before (not necessarily immediately before) the days on which M and N are unloaded.
III. L cannot be unloaded on Tuesday.
IV. M is the second ship to be unloaded after J is unloaded.

If M is unloaded on Friday, then which of the following is definitely true?

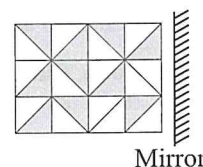
- A. J is unloaded on Wednesday
B. K is unloaded on Tuesday
C. L is unloaded on Monday
D. L is unloaded on Thursday

6. Which of the following interchanges in signs would make the given equation true?

$$16 - 8 \div 4 + 5 \times 2 = 8$$

- A. - and \div
B. - and \times
C. \div and +
D. \div and \times

7. Select the correct mirror image of the given figure.



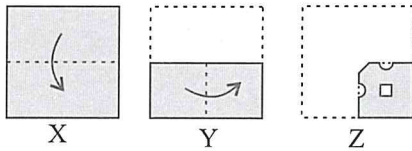
- A.
- B.
- C.
- D.

8. Pranav walks 20 m towards East. Then he turns left and walks 9 m. Then he again turns left and walks 32 m. In which direction and how far is he now from his starting position?

- A. 15 m, North-East
B. 15 m, North-West
C. 15 m, South-West
D. 15 m, South-East

9. The given question consists of a set of three figures X, Y and Z showing a sequence of folding of a piece of paper. Fig. (Z) shows the manner in which the folded paper has been cut. Select a figure from the options

which would most closely resemble the unfolded form of Fig. (Z).



10. In a certain code language, DISTANCE is written as FEQEYYPL. How will CHARCOAL be written in that code language?

- A. LOGWGRCM B. MCRGWGOL
C. KOGWGRCM D. MCRGWGOK

COMPUTERS AND INFORMATION TECHNOLOGY

11. Select the CORRECT match.

- A. Pratyush - It is considered as India's fastest supercomputer.
B. Earth Simulator - Developed by the Government of Bhutan and is used to evaluate the effects of population growth
C. Mac Mini - Small desktop computer, manufactured by Lenovo
D. Trinity - Asian supercomputer, which is ranked as the most powerful supercomputer in the world

12. _____ deals with integration of computer and graphics packages for the purpose of automating design and drafting process.

- A. Drafting
B. Computer-Aided Design
C. Word Processor Package
D. Spreadsheet

13. Which of the following shortcuts is used to italicize the selected text in Flash CS6?

(Note: Assume that the Font Family is: Times New Roman)

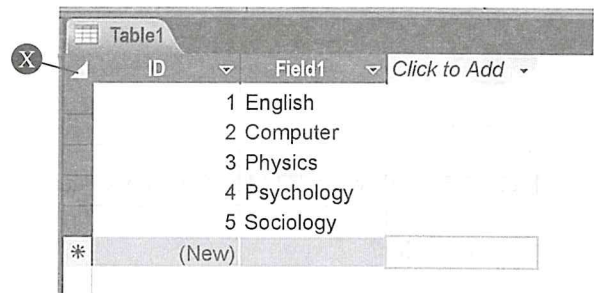
- A. +
B. +
C. + +
D. +

14. Identify the type of cyber attack from the given description.

- It is the creation of e-mail messages with a forged sender address.
- It is used by the spam and phishing e-mails to mislead the recipient about the origin of the message.

- A. E-mail spoofing
B. E-mail jamming
C. E-mail jittering
D. E-mail bombing

15. What would happen if you click on the button marked as "X" in the given table of MS-Access 2010?



- A. It will select the whole table.
B. It will select only first row.
C. It will select only second column.
D. It will delete the whole table.

16. Which of the following options available in the File tab will allow to change the Word document file type into plain text format (as shown here) in MS-Word 2010?



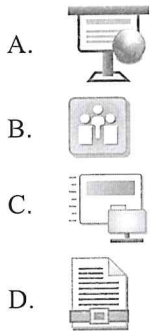
- A. Save & Send
B. Recent
C. Options
D. Info

17. _____ technology is a wearable gestural interface that augments the physical world around us with digital information and lets us use natural hand gestures to interact with that information.

- A. Third Sense
B. Sixth Sense
C. Fourth Sense
D. Seventh Sense

18. Which of the following features will enable the given tasks in MS-PowerPoint 2010?

- Store Slides in a shared location for other people to use
- Receive e-mail notifications when slides change
- Track and review changes to slides



19. Which of the following output is CORRECT if you type the given formula in MS-Excel 2010?

(Note: Cell A1 = 2019)
=REPLACE(A1,3,2,"29")

- A. 0229
B. 2920
C. 29
D. 2029

20. Which of the following HTML statement codes would render the horizontal line in one solid color, instead of shading color?

- A. <hr=solid color>
B. <hr="horizontal">
C. <hr> "0" </hr>
D. <hr noshade>

21. What is Google chromecast?

- A. A dongle that allows computers and wireless devices to stream video to a TV over a wireless network
B. Google's new web browser
C. A 3D video technology
D. Google's chatting software

22. Identify the following.

- It is a network of physical objects embedded with electronics, software and sensors that involves machine-to-machine communication (M2M) without any human interaction.
 - Its examples are heart monitoring implants and automobiles with built-in sensors.
- A. Block Chaining
B. Internet of Things
C. Cloud Computing
D. RPA

23. Identify the given tool of Flash CS6.



- A. Circle Tool
B. 3D Rotation Tool
C. Lasso Tool
D. Bone Tool

24. Flash CS6 offers a variety of drawing modes in which we can draw our images and objects like oval, rectangle, lines, etc. Which of the following is the default drawing mode for Adobe Flash CS6?

- A. Merge Drawing mode
B. Primitive Drawing mode
C. Object Drawing mode
D. All of these

25. Which of the following statements hold(s) true regarding MICR?

- Statement 1 : It shines a light beam onto the input document and writes the information on the cheques using laser beam.
Statement 2 : It offers greater security as compared to OCR technology as printed characters can not be altered.

- A. Only Statement 1
B. Only Statement 2
C. Both Statement 1 and Statement 2
D. Neither Statement 1 nor Statement 2

26. Which of the following options of MS-Word 2010 is used for searching reference materials from various sources such as encyclopedia and dictionaries?

- A. Translate
B. Thesaurus
C. Research
D. Word Count

27. Storage capacity of a magnetic tape = _____ × _____.

- A. Number of recording surfaces, Number of disks
B. Data recording density, Length
C. Length, Number of seconds
D. Number of tracks per surface, Number of bytes per sector

28. Select the INCORRECT match regarding the formulas of MS-Excel 2010 with their results referring to the values shown in the given snapshot.

	A	B
1	31	17
2	9	

- A. =IF(A1=31,B1-A1) - -14
 B. =IF(A2/3=0,"even","odd") - even
 C. =IF(A1<B1,TRUE,IF(B1<A2,"False","OK")) - OK
 D. =IF(A1=31,A1-B1," ") - 14

29. The snapshot given here shows that the word "Computer" is being dragged from one place to another in MS-PowerPoint 2010. Which of the following options will replace the "?" in the given steps if you want to disable this dragging and dropping of words in MS-PowerPoint 2010?

COMPUTER

File tab → Options → ? → Editing options → Clear the checkbox named as: Allow text to be dragged and dropped

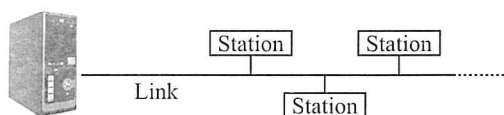
- A. Click on "Quick Access" in Format dialog box
 B. Click on "Proofing" in PowerPoint Options window
 C. Click on "Display" in Proofing dialog box
 D. Click on "Advanced" in PowerPoint Options window

30. What does the link attribute in given HTML code represent?

```
<html>
<body link="blue">
<p><a href="https://www.nationalcyber.org">National
Cyber</a>
</p>
</body>
</html>
```

- A. It specifies the default color of unvisited links in a document.
 B. It specifies the default color of non-active links in a document.
 C. It specifies the default color of visited links in a document.
 D. None of these

31. Given diagram shows Point-to-Multipoint connection, in which more than two specific devices share a single link. Which of the following is an example of Point-to-Multipoint connection?



- A. Radio broadcasting
 B. Television broadcasting
 C. Changing TV channels by infrared remote control
 D. Both A and B

32. Comments are the additional text or information which are not displayed by the browser. With comments you can place notifications and reminders in your HTML code. Which of the following options will be used to add comments in an HTML document?

- A. <-- Write your comments here -->
 B. <-- !Write your comments here! -->
 C. <!-- Write your comments here -->
 D. <-- Write your comments here !-->

33. Using the Define Name feature, you have named the cells as following in MS-Excel 2010:

Cells A1:A4=Label

Cells B1:B4=Grade

Now considering the given snapshot, what would be the result of the given formula?





= SUM(MIN(Label),MAX(Grade))

	A	B
1	4	1
2	3	2
3	2	3
4	1	4

- A. 6
 B. 5
 C. 8
 D. 7

34. Identify the following.

- It is a non-sequential access memory and is directly accessed by CPU.
- It determines the size and number of programs that can be simultaneously held within the computer as well as the amount of data that can be processed quickly at a time.

- A. 
 B. 
 C. 
 D. 

35. Which of the following statements hold(s) true about DDR (Double Data Rate Memory)?

Statement 1 : It requires less power and has a speed which is double than that of SDRAM.

Statement 2 : It is a type of ROM used in minicomputer.

- A. Only Statement 1
B. Only Statement 2
C. Both Statement 1 and Statement 2
D. Neither Statement 1 nor Statement 2





36.  is used to _____ in MS-Access 2010.

- A. Insert or create portions of a database or an entire database application
B. Create a new blank table in Design view
C. Publish a query of the current database
D. Refresh all

37. Hspace attribute of tag adds _____ side of an image in HTML.

- A. Space to the left and right
B. Space to the top and bottom
C. Height to the left and bottom
D. None of these

38. Which of the following options of Table Tools can be used to change the name and caption of the fields in a table in MS-Access 2010?

- A. 
B. 
C. 
D. 

39. _____ ports connect special types of musical instruments to sound cards.

- A. BUS
B. UPS
C. KBD
D. MIDI

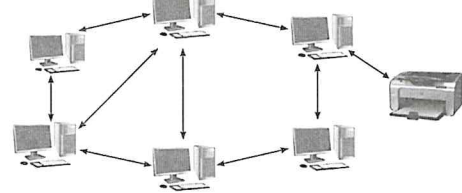
40. Select the odd one out.

- A.  ClamWin
B.  Quick Heal
Security Simplified

C.  panda

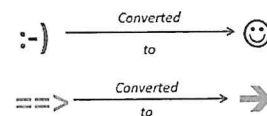
D.  ubuntu

41. In the given image, there is no server. Files are being shared between workstations, and a printer connected to one workstation can be accessed by other workstations as well. Identify the type of network.



- A. Client-zero server
B. Peer-to-peer
C. Client-to-peer
D. Peer-to-Client Server

42. Which of the following features would convert the smiley and arrow symbols into special symbols as shown here in MS-PowerPoint 2010?



- A. AutoInterchange
B. AutoCorrect
C. AutoFill
D. AutoSymbol

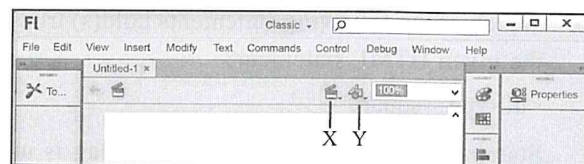
43. Observe the given snapshot of MS-Excel 2010, which shows you price of a product named Shoes and its discount/reduction rates in different months. It also shows you a formula written in cell B9.

	A	B	C	D
1	Product	Price		
2	Shoes	50		
3				
4				
5	Month	Oct	Nov	Dec
6	Reduction	10%	30%	70%
7				
8	Price-month	Oct	Nov	Dec
9	Shoes	=B52*(1-B56)		

What would be the result in cells B9, C9 and D9 respectively, after you press enter in cell B9 and then drag the formula across cells C9 and D9?

- A. 75,45,25
B. 45,35,15
C. 80,70,60
D. 35,45,15

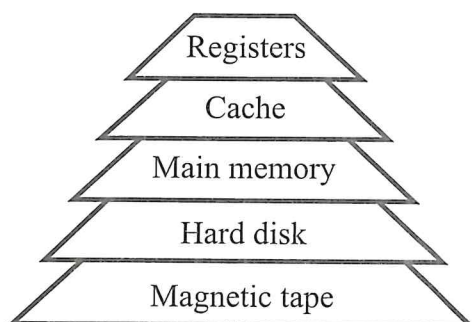
44. If the storage capacity of a ROM chip is 2.50 MB then it can store upto _____ bytes.
- 2.50×1024
 - $2.50 \times 1024 \times 1024$
 - $2.50 \times 1024 \times 1024 \times 1024$
 - $2.50 \times 1024 \times 1024 \times 1024 \times 1024$
45. Observe the given screenshot carefully and identify what do the areas marked as X and Y represent respectively with respect to Flash CS6?



- Edit Scene, Edit Symbols
- Edit Symbols, Edit Scene
- Onion Skin, Onion Skin Outlines
- Onion Skin Outlines, Onion Skin

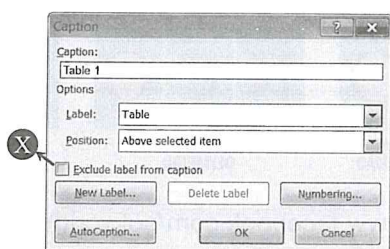
ACHIEVERS SECTION

46. The given diagram shows the memory hierarchy of a computer system.



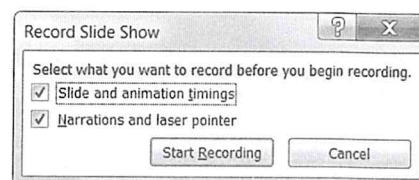
Which of the following statements hold(s) true, if we follow this hierarchy from top-to-bottom?

- Storage capacity decreases.
 - Access time by the CPU decreases.
 - Cost per bit of storage decreases.
 - Both A and B
47. The given dialog box is used to add the caption to the objects (such as images, tables, equations, etc.). What caption would be added to the object when you click on the checkbox marked as "X" and then click OK in the given dialog box of MS-Word 2010?



- 1
 - Table-1
 - 1.1
 - Table 1.1
48. When you start recording the slide show in MS-PowerPoint 2010, the dialog box shown here will be displayed which gives you the option whether you

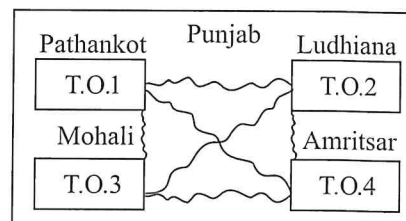
want to record the slide or animations timings and narration and laser pointer. Which of the following statements hold(s) true about the given dialog box?



- Statement 1 : This dialog box will be displayed only if you have animation or narrations inserted in your slide.
- Statement 2 : It will be displayed only when we start recording from the first slide, in any other case, it will not be displayed.
- Only Statement 1
 - Only Statement 2
 - Both Statement 1 and Statement 2
 - Neither Statement 1 nor Statement 2

49. Which of the following topologies is used in the connection of telephone regional exchange offices of different cities of Punjab in which each regional office needs to be connected to every other regional office?

(In the given diagram, ~~~~~ represents connection and T.O. means Telephone Office).



- Bus Topology
- Mesh Topology
- Star Topology
- Ring Topology

50. Which of the following statements hold(s) true about the given HTML statement?

`<ul type="square">`

Statement 1 : type="square" in `` tag is used to mark the items of the list with square symbol, such as: ■ Wireless.

Statement 2 : The given statement is not correct because type="square" is associated with `` tag.

- A. Only Statement 1
- B. Only Statement 2
- C. Both Statement 1 and Statement 2
- D. Neither Statement 1 nor Statement 2

SPACE FOR ROUGH WORK



For latest updates & information, please like  our Facebook page (www.facebook.com/sofworld) or register on <http://www.sofworld.org/subscribe-updates.html>

For Level 1 and Level 2 preparation material / free sample papers, please log on to www.mtg.in



National Office: Plot 99, First Floor, Sector 44 Institutional area, Gurugram -122 003 (HR) India
Email: info@sofworld.org | Website: www.sofworld.org
Regd. Office: 406, Taj Apt., Ring Road, New Delhi-110 029
Note: Please address all communication to the National Office only.