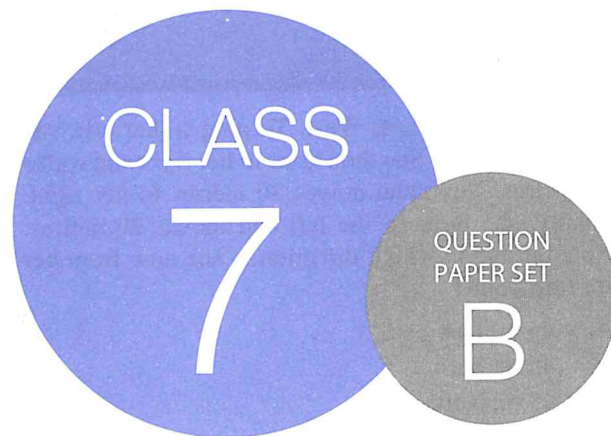


**SOF NATIONAL CYBER
OLYMPIAD 2019-20**



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)

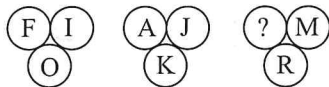
7. Rough work should be done in the blank space provided in this booklet.
8. Return the OMR Sheet to the invigilator at the end of the exam.
9. Please fill in your personal details in the space provided on this page before attempting the paper.

LOGICAL REASONING

1. Kritika faces towards West. Turning to her left, she walks 30 metres. She then turns to her right and walks 25 metres. Next, she moves 30 metres to her right. Finally, she turns to the left and moves 20 metres. How far and in which direction is she now from her starting point?

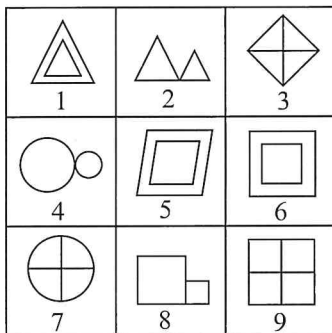
A. 45 m, East
B. 45 m, West
C. 45 m, North
D. 40 m, West

2. Find the missing alphabet, if same rule is followed in all the three figures.



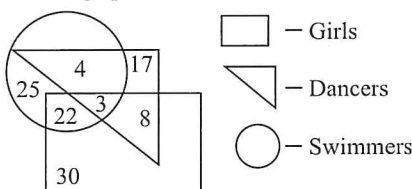
A. A
B. F
C. C
D. E

3. Group the given figures into three classes on the basis of their identical properties using each figure only once.



A. 1, 6, 7; 2, 4, 8; 3, 5, 9
B. 1, 5, 6; 2, 4, 8; 3, 7, 9
C. 1, 4, 7; 2, 5, 8; 3, 6, 9
D. 1, 7, 9; 3, 5, 8; 2, 4, 6

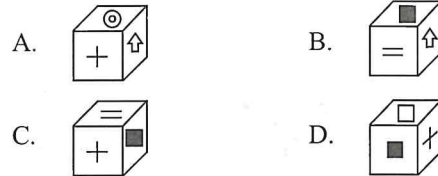
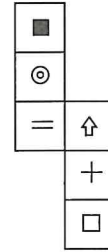
4. Study the given Venn diagram carefully and answer the following question.



Which of the following numbers represents girls who are dancers but not swimmers?

A. 3
B. 22
C. 8
D. 4

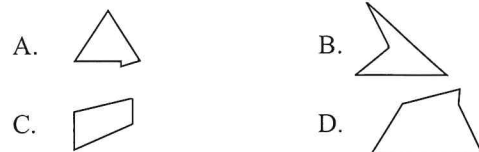
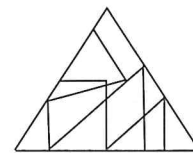
5. The given sheet of paper is folded to form a box. Choose the box from the options that is similar to the box formed.



6. P is father-in-law of Q who is the wife of T. S is mother of T who is the only brother of R. How is R related to P?

A. Brother
B. Son
C. Daughter
D. Can't be determined

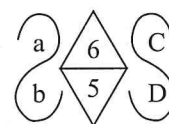
7. Select a figure from the options which is exactly embedded in the given figure as one of its parts.

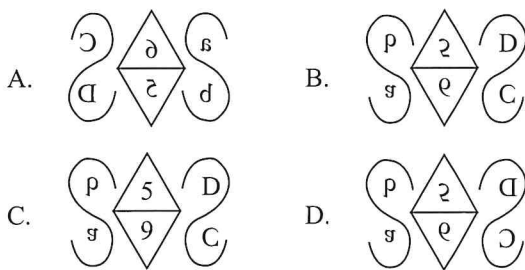


8. If 'A' is written as '-', 'B' is written as '+', 'C' is written as '÷' and 'D' is written as '×', then what is the value of 175 B 25 C 5 D 20 A 3 D 10?

A. 70
B. 67
C. 77
D. 83

9. Select the correct water image of the given figure.





10. In a row of 40 boys, Satish is 10th to the right of Rohan and Kewal is 10th to the left of Vilas. If Vilas is twenty-sixth from the left end and there are three boys between Kewal and Satish, then what is the position of Rohan in the row?
- 10th from the right end
 - 10th from the left end
 - 39th from the right end
 - Data inadequate

COMPUTERS AND INFORMATION TECHNOLOGY

11. What would the following lines of code will display upon execution in QBASIC?

SCREEN 9

LINE(20,22) – (40,22),4

- A straight yellow line
 - A straight green line
 - A straight red line
 - A diagonal yellow line
12. Locking the taskbar prevents you from _____ in Windows 7.
- Customizing the Notification area
 - Changing its location to screen
 - Resizing it
 - Enabling 'Auto-hide the taskbar' feature
- Only (i)
 - Both (i) and (ii)
 - Both (ii) and (iii)
 - Both (iii) and (iv)
13. Which of the following statements hold(s) true regarding supercomputers?
- Statement 1 : PARAM series is an example of supercomputers.
- Statement 2 : Sequoia was the first supercomputer made in China.
- Only Statement 1
 - Only Statement 2
 - Both Statement 1 and Statement 2
 - Neither Statement 1 nor Statement 2
14. A specially designed webpage that brings information together from diverse sources in a uniform way is called a web portal. Which of the following options offers web portal services?



D. All of these

15. 3D printing is also called as _____.
- Multi manufacturing
 - Virtual printing
 - Additive manufacturing
 - Concept printing
16. Consider the cell A1 has a value 905.76. What would be displayed in the cell when you click on button in MS-Excel 2010?
- 905.7
 - 905.65
 - 906
 - 905.8
17. Optical discs drive requires precision engineering and more complicated drive mechanism than magnetic disks due to the need to have _____.
- Laser generating source and detecting lens
 - SD memory based chip
 - Disc platters mounted on a multi layer central shaft
 - LED indicator and USB port connector
18. Which of the following statements hold(s) true about the given icon with respect to Mail Merge in MS-Word 2010?



Statement 1 : It lets you create and print envelopes.
Statement 2 : It allows you to add an address to your letter.

- Only Statement 1
- Only Statement 2
- Both Statement 1 and Statement 2
- Neither Statement 1 nor Statement 2

19. Identify the following.

- It was originally started as a project by the Ericsson company.
- It is a standard that defines a wireless personal area network operable in an area the size of a room or a hall.
- It is used for providing communication between peripheral devices such as wireless mouse or keyboard with the computer.

- A. Infrared
- B. Wi-Fi
- C. Bluetooth
- D. Wi-max

20. 'Insert Hyperlink' option allows you to _____ in MS-PowerPoint 2010.

- A. Insert an embedded object
- B. Add an animation to an object
- C. Create a link to an existing file or web page and add a screen tip to the link
- D. None of these

21. What is Reverse guest blogging?

- A. A blog in which older posts appear first
- B. A blog which is composed by a single user
- C. A blog that creates reverse proxy
- D. A blog which is composed by its users rather than a single blogger

22. Match the following.

- | | |
|----------------------|---|
| (a) Harvard Mark - I | (i) It was used for cryptanalysis during World War-II. |
| (b) Atanasoff Berry | (ii) Invented world's first programmable computer |
| (c) Konrad Zuse | (iii) It was the first automatic electronic digital computer. |
| (d) Colossus | (iv) It was an electromechanical computer built by IBM in 1944. |

- A. (a) - (i), (b) - (ii), (c) - (iii), (d) - (iv)
- B. (a) - (iv), (b) - (iii), (c) - (ii), (d) - (i)
- C. (a) - (i), (b) - (iii), (c) - (iv), (d) - (ii)
- D. (a) - (ii), (b) - (iv), (c) - (i), (d) - (iii)

23. Given below is the general format of the FOR-NEXT statement of QBasic:

FOR Variable=M1 TO M2 STEP N

.....
.....
.....

NEXT Variable

What will happen if the value of N is zero and the final and initial values (M1 and M2) are different?

- A. It results in endless looping.
- B. It displays a blank screen.
- C. It will display the results in negative integers only.
- D. It will display the results in positive integers only.

24. Identify the type of software with the given description.

- It is a software program, that records user's personal information.
- It monitors a user's computing habits.
- It sends the recorded information to third parties without the user's knowledge.

- A. Spyware
- B. Cryptoware
- C. Boot Sector ware
- D. Poly ware

25. You have a computer that runs Windows 7. To view the processes that are currently trying to access a network resource, you should _____.

- A. Open Resource Monitor and click the Network tab
- B. Open Windows Task Manager and click the Networking tab
- C. Open Personalize and examine the Network Profile Operational log
- D. Open Command Prompt and add all the counters for network interface





26. _____ is a data storage device using integrated circuit assemblies as memory to store data persistently.

- A. CD-ROM
- B. Tape drive
- C. SSD
- D. DVD

27. A _____ is a temporary storage area between the device (for example, the hard disk) and the processor. It is used when there is a speed mismatch between the speed at which data can be processed and Input/Output.

- A. Addressed
- B. Tethered
- C. Linker
- D. Buffer

28. You have two slide masters in your presentation and you want that the second slide master does not get deleted even if you delete all the slides that use it. Which of the following options would help you do so in MS-PowerPoint 2010?












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

29. After selecting the data shown in Table-1, which of the following shortcuts would enable the filters in the data headers as shown in Table-2 in MS-Excel 2010?

Name	Marks		Name	Marks
Ayan	37	→	Ayan	37
Manya	41		Manya	41
Nisha	32		Nisha	32




Table-1

Table-2

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



30. Identify the following feature of MS-Word 2010.



- It identifies a location or a selection of text that you name and identify for future reference.
- You can use this feature to identify text that you want to revise at a later time, instead of scrolling through the document to locate the text.

- A. 
- B. 
- C. 

D. All of these

31. The _____ placeholder of Slide Master will allow you to insert _____ in your slide in MS-PowerPoint 2010.





- A.  , Text
- B.  , Chart

- C.  , Content
- D.  , Picture

32. _____ was designed by Howard Aiken. The machine was slow and took 3 to 5 seconds per calculation, but it was the first fully automatic calculator ever.

- A. ENIAC
- B. Mark I
- C. UNIVAC
- D. PDP-II

33. Which of the following features of MS-PowerPoint 2010 needs Windows Live ID?

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

34. Gaurav has added the range of cells A2:D2 in cell E2 using the SUM function as shown in the given snapshot. Now he wants to copy the same formula in cell E3 and E4 to calculate the sum of respective ranges. Which of the following types of cell referencing should be used by him for these cells in MS-Excel 2010?

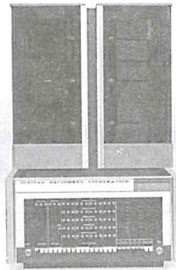
	A	B	C	D	E
1	A	B	C	D	Total
2	34	56	23	45	158
3	86	45	67	23	
4	45	34	92	104	

- A. Mixed
- B. Absolute
- C. Relative
- D. Copy

35. Which of the following components of computer directs the manner and sequence of operations for all other components?

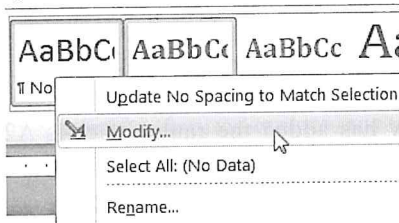
- A. Memory Unit
- B. Input Unit
- C. Control Unit
- D. Output Unit

36. Identify the given device and select the CORRECT statement about it.



PDP-8

- A. It was a second generation computer developed by Tata consultancy services.
 B. It was a third generation computer and was manufactured using IC chips.
 C. It was an electromechanical computer that used large amount of vacuum tubes.
 D. It was a first generation computer that used thousands of IC chips.
37. The given list of commands appear when you right click a style in Styles gallery. Which of the following tasks can be done if you click on the 'Modify' option of the given snapshot of MS-Word 2010?



- A. You can change the name of the pre-defined or in-built styles.
 B. You can freeze or lock the styles to prevent others from using it.
 C. You can replace these styles with icons.
 D. None of these
38. Which of the following statements hold(s) true about the given icon with respect to MS-Excel 2010?

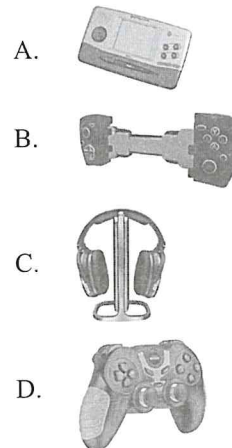


- A. It allows to sort the selected data with the lowest values at the top of the column.
 B. It allows to sort by multiple columns or rows.
 C. It allows to replace the information with new text.
 D. Both A and B
39. _____ was the first generation electronic computer developed by National Bureau of Standards (NBS) in 1950.

- A. Standards Eastern Automatic Computer
 B. Standards Eastern Computer

- C. Standards Eastern Mechanical Calculator
 D. Eastern Standards Electromechanical Computer

40. Which of the following devices is a Phonejoy controller that turns your smartphone into a gaming console?



41. Given below is the actual process of displaying the information from the web. Arrange the following steps in a CORRECT order.

- (i) Client machine sends the request to the server machine.
 (ii) Enter the URL of the web page (stored on the web servers interconnected around the globe) in the Address Bar of the web browser on the PC.
 (iii) Server transmits the web page data to the computer.
 (iv) Web browser displays the content on the screen.
- A. (ii) → (iii) → (i) → (iv)
 B. (ii) → (iv) → (i) → (iii)
 C. (ii) → (i) → (iii) → (iv)
 D. (ii) → (iii) → (iv) → (i)

42. Which of the following devices is being used by the banking industry to record or store the daily transaction so that it becomes a permanent record for them that can only be read whenever required but cannot be altered?

- A. DVD
 B. WORM disc
 C. Blu-ray disc
 D. Solid state drive

43. Which of the following options of Control Panel will give you information about your computer's speed and performance in Windows 7?




44. How many times will the given code be executed in QBASIC?

```
LET i = 0
FOR J = i To 1
PRINT "TEST"
NEXT J
```

- A. 0
B. 1

- C. 2
D. Infinite

45. Using  option available under view tab in MS-Word 2010, you can _____ in your document.

- A. View the list of recorded macros
B. Play the embedded animation object
C. Pause the recording of a macro temporarily
D. Insert a mathematical equation

ACHIEVERS SECTION

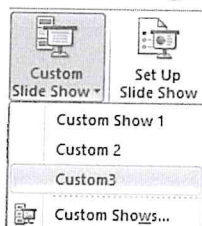
46. In QBASIC code user has to enter 10 positive numbers, if the user enters a negative number, the program control should come out of the loop and execute rest of the statements. Which of the following statements would replace the "?" in this code?

```
SUM = 0
FOR i = 1 TO 10
INPUT N
?
```

```
SUM = SUM + N
NEXT i
PRINT SUM
```

- A. IF $N > 0$ THEN EXIT
B. IF $N < 0$ THEN EXIT FOR
C. IF $N = 0$ THEN EXIT
D. FOR $N < 0$

47. Observe the given snapshot of MS-PowerPoint 2010. What will happen when a user clicks on the highlighted portion "Custom 3" from the given drop-down menu?



- A. "Custom Shows" dialog box will get displayed.
B. Slides contained in this custom show will get displayed in a Normal view.
C. It will start a full screen slide show of selected custom show i.e. "Custom 3".
D. It will create a copy of Custom 3 ppt.

48. Observe the features that have been marked as "P", "Q" and "R" in the given snapshot of Status bar of MS-Excel 2010. Match the buttons (that are addressing the corresponding features) given in Column-I with their functions given in Column-II.



Column-I

(a) **P**

(b) **Q**

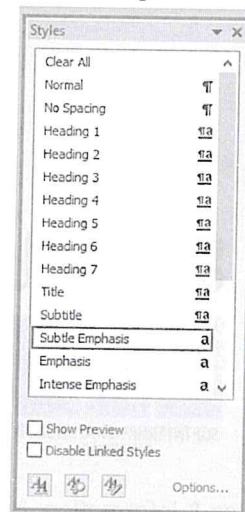
(c) **R**

Column-II

- (i) Displays the page break preview, that shows where the pages will break when spreadsheet will be printed
(ii) Displays the spreadsheet as it will appear on printed page
(iii) Displays the spreadsheet in Normal view

- A. (a) - (iii), (b) - (i), (c) - (ii)
B. (a) - (ii), (b) - (i), (c) - (iii)
C. (a) - (iii), (b) - (ii), (c) - (i)
D. (a) - (i), (b) - (iii), (c) - (ii)

49. Given image is of a Styles task pane in MS-Word 2010. What will happen when you check the "Show Preview" option available in this pane?



- A. The preview of the selected style will be displayed in work area of the current window.
B. The preview of all the styles will be shown in the Styles task pane itself.
C. The preview of the selected style will be shown in a separate window.
D. A new document containing the view of the current document will be created and the preview will be shown in new document.

50. A set of two or more software programs that together addresses a specific organization's need is called a software package/suite. Which of the following is an example of software suite?

A.



B.



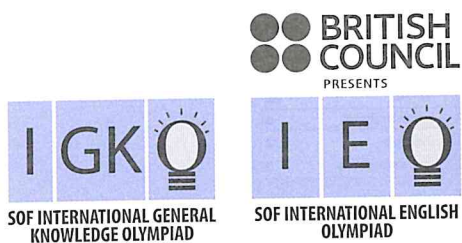
C.




D.



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.