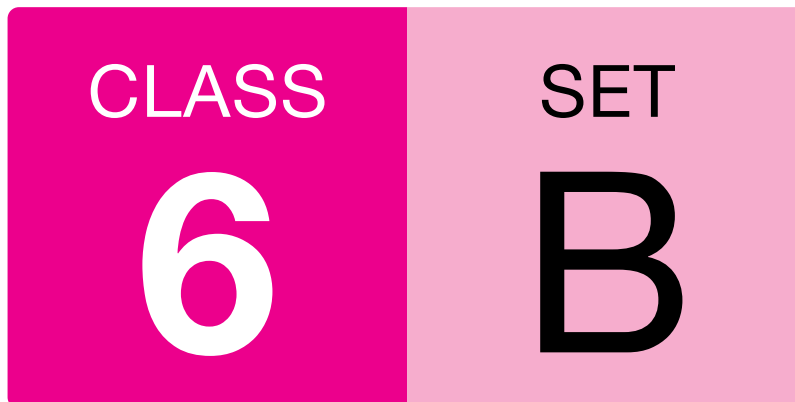




Total Questions : 50

Time : 1 hr.

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 four sections:
Logical Reasoning (10 Questions), **Computer Science** (30 Questions), **AI, Robotics and Information Technology** (5 Questions) and **Achievers Section** (5 Questions).

Each question in Achievers Section carries 3 marks, whereas all other questions carry 1 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 before attempting the paper.



DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO

Name:.....

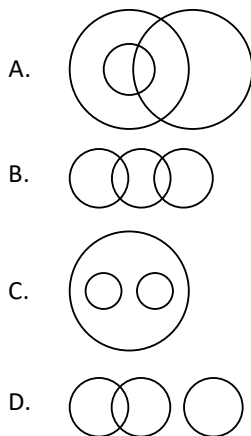
SOF Olympiad Roll No.:..... Contact No.:.....

LOGICAL REASONING

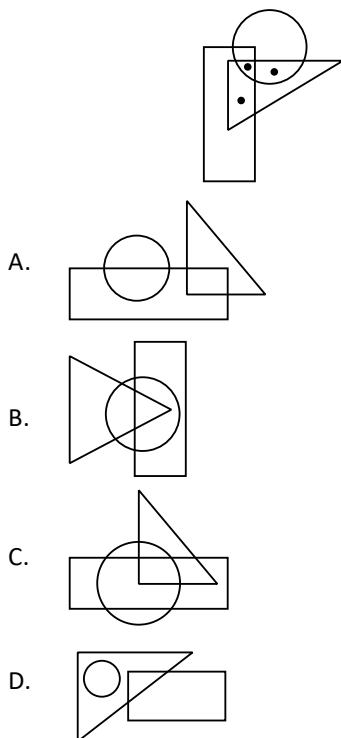
1. In a playground, Aditya walks 20 m towards North. He then takes a left turn and walks 100 m and then turns right and walks 25 m. He then turns right again and walks 100 m. Finally, he turns left and walks 20 m. How far is he now from the starting point?

A. 55 m
B. 60 m
C. 65 m
D. 70 m

2. Which of the following Venn diagrams best represents the relationship amongst, "Women, Fathers and Senior citizens"?



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

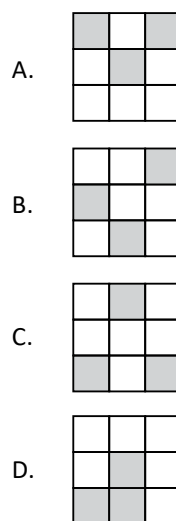


4. Find the missing number, if a certain rule is followed either row-wise or column-wise.

6	12	7	?
8	10	9	180
3	14	8	84

A. 126
B. 144
C. 196
D. 198

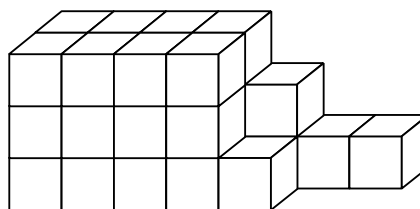
5. Select the odd one out.



6. If '@' denotes 'x', '#' denotes '-', '@' denotes '÷' and '*' denotes '+', then find the value of $17@6\#12@4*32$.

A. 73
B. 131
C. 142
D. 121

7. Count the number of cubes in the given figure.

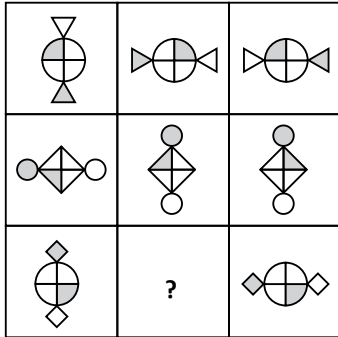


A. 29
B. 31
C. 30
D. 34

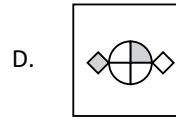
8. Introducing Pawan, a boy said, "He is the son-in-law of my mother's husband." How is Pawan's son related to that boy?

- A. Father-in-law
- B. Nephew
- C. Cousin
- D. Brother-in-law

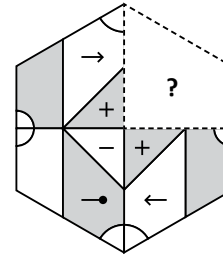
9. Which of the following figures will complete the given figure matrix?



- A.
- B.
- C.



10. Which of the following figures will complete the pattern in the given figure?



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

COMPUTER SCIENCE

11. Identify the following type of memory.

- It's slower than RAM but still helpful.
 - It helps the computer to run more programs at once.
 - If too many programs are open and RAM runs out, the computer uses it.
- A. Cache memory
 - B. Virtual memory
 - C. Optical memory
 - D. Magnetic memory

12. Which of the following computers is smaller than a mainframe computer but larger and more powerful than a microcomputer?

- A. Super computer
- B. Minicomputer
- C. Laptop
- D. Smartphone

13. Which of the following statements hold(s) true about the analytical engine?

Statement 1 : It was the first design of a general-purpose computer that was designed by Charles Babbage.

Statement 2 : It was a mechanical device invented by Blaise Pascal to help with addition and subtraction.

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

14. A _____ is a small preview image of a file, folder or window that helps you see what's inside without opening it in Windows 11.

- A. Control window
- B. Snapshot
- C. Dialog box
- D. Thumbnail

15. Which of the following options is not present under the Merge group of Table Tools Layout tab which gets activated when you insert a table in MS-Word 2016?

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

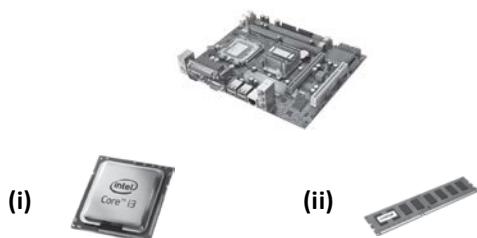
16. Match the following.

- | Column- I | Column-II |
|--------------|---|
| (a) Router | (i) It is a small card inside a computer that lets it connect to a network. |
| (b) Modem | (ii) It is used to connect multiple networks together. |
| (c) Repeater | (iii) It is used to connect your home or school network to the internet service provider (ISP). |
| (d) NIC | (iv) It helps to regenerate a signal and sends it again to extend the network's range. |
- A. (a)-(ii), (b)-(iii), (c)-(iv), (d)-(i)
 B. (a)-(i), (b)-(iii), (c)-(ii), (d)-(iv)
 C. (a)-(iii), (b)-(i), (c)-(ii), (d)-(iv)
 D. (a)-(iv), (b)-(ii), (c)-(i), (d)-(iii)

17. Select the incorrect match with respect to e-mail.

- A. To – The person you are sending the email to.
 B. Subject – A short title or reason for the message.
 C. From – The name of the person writing the email.
 D. Attachment – The main message you want to write.

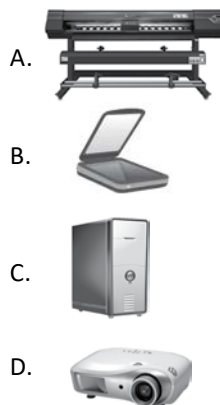
18. Which of the following devices is normally found on the board/card shown here?



(iii)

- A. (i) only
 B. (i) and (ii) only
 C. (i) and (iii) only
 D. (iii) only

19. Which of the following options cannot be categorised as peripheral devices of a computer?



20. What does HDMI stand for?

- A. High-Definition Multimedia Interface
 B. Higher-Definition Multimedia Interact
 C. High-Data Multimedia Interface
 D. Higher-Data Multi Interface

21. Which part of the CPU tells all the parts of the computer what to do, when and how to do it?

- A. Control unit
 B. Memory unit
 C. Arithmetic logic unit
 D. None of these

22. To work on different sections of the document at the same time, go to _____ in MS-Word 2016.

- A. View tab → Window group → Split
 B. View tab → Show group → Split
 C. Review tab → Changes group → Arrange All
 D. Insert tab → Links group → Switch windows

23. Which of the following statements is/are correct about defragmentation in Windows 11?

- (i) It is used to optimize drives.
 (ii) It analyses and defragments your hard drives.
 (iii) It improves performance by reorganizing files for faster access.
- A. (i) only
 B. (ii) only
 C. (i) and (ii) only
 D. (i), (ii) and (iii)

24. Which of the following features allows user to add graphics to the presentation and represents data/text in a visually attractive manner in MS-PowerPoint 2016?

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

25. Which of the following methods will create the replica of drawing in MS-Paint of Windows 11?

- A. Select the drawing and press  key.
- B. Select the drawing and hold the  key while dragging it.
- C. Select the drawing and press  +  keys.
- D. Select the drawing and hold the  key while dragging it to another location.

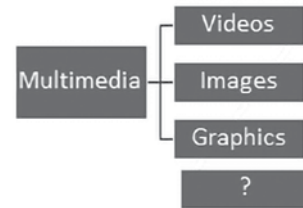
26. Identify the following.

- It acts as a barrier between a trusted internal network and untrusted external networks (like the internet).
 - It blocks unauthorised users, hackers or malware from accessing your private network.
- A. Phishing
- B. Crawling
- C. Firewall
- D. Filtering

27. Which of the following was the first general-purpose, fully electronic digital computer, developed in the United States during World War II?

- A. UNIVAC
- B. Mark I
- C. ABC
- D. ENIAC

28. Which of the following will come in place of the question mark with respect to multimedia?



- A. Text
- B. Audio
- C. Memory
- D. Both A and B

29. Which of the following shortcut key options is correct for adding a new slide in MS-PowerPoint 2016?

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

30. Which of the following options increases the height of the selected cell of an inserted table in MS-Word 2016?

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

31. Which of the following statements is incorrect about heading tags <H1> to <H6> in HTML?

- A. It is used to show levels of importance or section titles on a webpage.
- B. The <H1> tag is the largest and the <H6> tag is the smallest heading tag.
- C. It is used to define headings and subheadings on a webpage.
- D. The <H1> tag is used only for paragraph text.

32. What will happen if you click on given block in Scratch?

glide 3 secs to x: 100 y: 50

- A. The sprite instantly appears at x:100, y:50.
- B. The sprite waits for 3 seconds before moving.
- C. The sprite moves smoothly to x:100, y:50 in 3 seconds.
- D. The sprite disappears after 3 seconds.

33. Which of the following statements is true with respect to memory?

Statement 1 : In EEPROM, data can be erased using UV (ultraviolet) light.

Statement 2 : In EPROM, data can be erased and rewritten electrically, without UV light.

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

34. A computer process physically reorganises the contents of secondary memory like the hard disks by storing files into the smallest number of contiguous regions. This process is called _____.

- A. Drive Sorting
- B. Disk Backup
- C. Disk Defragmentation
- D. Drive Compression

35. Which of the following is the primary purpose of the Widgets panel in Windows 11?

- A. To open Microsoft Office apps.
- B. To manage files.
- C. To show personalised news, weather and calendar.
- D. To open the task manager.

36. In Table Tools Table Design tab, using 'Shading' you can _____ in MS-Word 2016.

- A. Specify a color for the page background
- B. Specify a color for the background behind the selected text or paragraph
- C. Highlight the text
- D. Highlight the border of the selected cell in a table

37. Which of the following is not a paragraph alignment option in MS-Word 2016?

- A. Align Left
- B. Justify
- C. Center
- D. Align Top

38. Which of the following options can be used to insert embedded object in MS-PowerPoint 2016?

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

39. Which of the following statements hold(s) true about File Explorer of Windows 11?

Statement 1 : It displays the hierarchical structure of drives, folders and files.

Statement 2 : The key combination  +  is used to open it.

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

40. To apply the transition of the current slide to all the slides in the presentation, click _____ in MS-PowerPoint 2016.

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

AI, ROBOTICS AND INFORMATION TECHNOLOGY

41. Which of the following abilities would an AI robot need to play chess game?

- A. Smell recognition
- B. Decision-making and strategic thinking
- C. Flying ability
- D. Cooking food

42. Which of the following is an online platform for using your WhatsApp account on your computer?

- A. Instagram

- B. WhatsApp Web
- C. WhatsUp
- D. Skype

43. Which of the following options is a high-speed hardware interface developed by Intel, in collaboration with Apple, that allows for fast data transfer, video output and power delivery through a single cable?

- A. Thunderbolt port
- B. AGI port

- C. HDMI port
- D. Ethernet port

44. Which of the following statements is/are correct about the smartwatch?

- (i) It can be worn while swimming or in the rain.
- (ii) It can be used to adjust music sounds directly from your wrist.
- (iii) It helps you find directions and keeps a record of the number of steps of your walk.

- A. (i) only
- B. (i) and (ii) only
- C. (ii) and (iii) only
- D. (i), (ii) and (iii)

45. Which of the following can be considered as type(s) of CAPTCHA?

- A. Image-based
- B. Text-based
- C. Both A and B
- D. None of these

ACHIEVERS SECTION

46. What will be the output of the given HTML code?

```
<html>
<head>
<body>
<p><b><u>Computer</u></b><i>Science</i></p>
</body></html>
```

- A. ComputerScience
- B. ComputerScience
- C. Computer*Science*
- D. ComputerScience

- B. It contains various options required to manage multiple windows.
- C. It provides multiple options related to animations.
- D. Both A and B

49. Select the correct statement(s) about the given image.



- (i) It is a physical wire that provides a direct connection between devices.
 - (ii) It has a plastic body and eight metal pins for Ethernet connections.
 - (iii) It is made of silver-plated brass.
 - (iv) It is developed to carry light signals.
- A. (i) and (ii) only
 - B. (iii) and (iv) only
 - C. (ii) and (iv) only
 - D. (ii), (iii) and (iv) only

47. Identify (X) and (Y) with respect to MS-Word 2016.

(X) : It is a type of Page Breaks, which indicates that the text following the column break will begin in the next column.

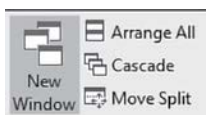
(Y) : It is a type of Section Breaks, which inserts a section break and start the new section on the same page.

(X)

(Y)

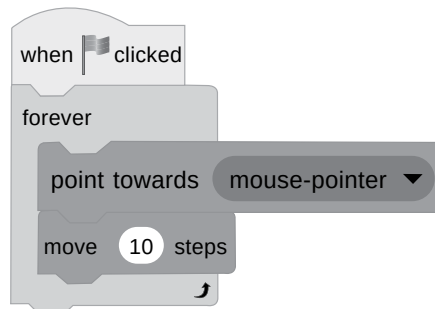
- | | | |
|----|--|--|
| A. | | |
| | | |
| B. | | |
| | | |
| C. | | |
| D. | | |

48. Consider the given image and select the correct statement(s) about it with respect to MS-PowerPoint 2016?



- A. It is available under View tab of Window group.

50. What will be the output of the given code in scratch.



- A. The sprite will spin forever until you click on the green flag.
- B. The sprite will follow the mouse pointer continuously.
- C. The sprite will jump 10 degree towards mouse pointer.
- D. The sprite will move the sprite 10 steps only.

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Head Office: Plot 99, Sector 44 Institutional area, Gurugram -122 003 (HR), India
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