



SOF INTERNATIONAL **COMPUTER SCIENCE OLYMPIAD** 2024-25

DO NOT OPEN THIS BOOKLET UNTIL ASKED TO DO SO

CLASS

SET-B

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), Al, Robotics and Information Technology (5 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?

- C. Thermal Flatbed D. Liquid Crystal Display A. Cathode Ray Tube B. Light Emitting Diode As the correct answer is option C, you must darken the circle corresponding to option C on the 16. A B ● D OMR Sheet.
- 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.





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Assessments

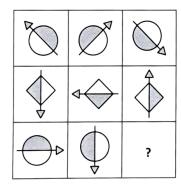
Olympiads

LOGICAL REASONING

- 1. Select the odd one out.
 - A. C24
 - B. E22
 - C. L18
 - D. I18
- 2. Ankur walks 5 m towards North. Then he turns right and walks 10 m. Then he turns 90° clockwise and walks 5 m straight. He then turns right and walks for 10 m. In which direction will he be facing, if he finally turns to his left?
 - A. North
 - B. South
 - C. West
 - D. East
- 3. Select the correct water image of the given figure.

N01623

- a. M01623
- N01623 B
- c. EZ9ION
- D. M01972
- 4. Which of the following options will complete the given figure matrix?



A. 4







D.



- If 'L' stand for '+', 'M' stands for '÷', 'N' stands for 'x' and 'J' stands for '-', then find the value of 15 N 7 L
 46 M 23 J 18.
 - A. 89
 - B. 11
 - C. 75
 - D. None of these
- 6. If 7th November 20XX is Monday, then what day will be on 18th December of the same year?
 - A. Monday
 - B. Saturday
 - C. Sunday
 - D. Tuesday
- 7. Pointing towards a man in a photograph, a woman said, "He is the only brother of my mother-in-law's only daughter." How is the woman related to that man in the photograph?
 - A. Daughter-in-law
 - B. Sister-in-law
 - C. Wife
 - D. Can't be determined
- Arrange the given words in the sequence in which they occur in the dictionary and select the correct option.
 - 1. Warmth
- 2. Warning
- 3. Weather
- 4. Winter
- 5. Wardrobe
- A. 1, 5, 2, 4, 3
- B. 5, 1, 2, 4, 3
- C. 1, 5, 2, 3, 4
- D. 5, 1, 2, 3, 4
- Select the option in which the specified components of the given figure are found.







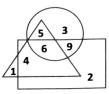








10. Study the given Venn diagram carefully and answer the following question.



riangle o Artists

Which of the following numbers represents fathers who are artists?

- 2 A.
- 6 В.
- 4
- 9 D.

COMPUTER SCIENCE

- Which of the following data storage devices includes flash memory with a USB interface?
 - Jump drive A.
 - Optical disc drive В.
 - Hard disk drive C.
 - None of these D.
- 12. Select the incorrect match of MS-Excel 2016 icons with their functionalities.



It can easily spot trends and patterns in your data using bars, colors, and icons to visually highlight important values.



It quickly converts a range of cells into a table with its own style.



It is used to make important data stand out on the sheet with colors.



- It is used to continue a series or pattern into neighboring cells in any direction.
- 13. Which of the following shortcut keys inserts a new worksheet into your workbook in MS-Excel 2016?



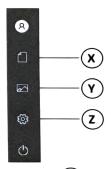


- D.
- Which of the following statements hold(s) true with respect to MS-Word 2016?

It displays a list of macros you Statement 1 : can work with.

It is used to start or stop recording Statement 2: of a macro.

- Only Statement 1 Α.
- В. Only Statement 2
- C. Both Statement 1 and Statement 2
- D. Neither Statement 1 nor Statement 2
- 15. Identify (X), (Y) and (Z) from the given image with respect to Windows 10.



(x)

(Y)

Documents Α.

Power

- Username
- **Pictures Pictures**

Documents

Settings

В.

C.

Settings **Pictures**

D. Settings

Pictures

Documents

16.	Sele	ect the odd one	out.	
	Α.	Bitdefender	out.	
	В.	Trojan		
	C.	Avira		
	D.	McAfee		
17.	Λ/Λ	_		
-7.	may net	access the inte	ernet i	actual location where users through a wireless local area router that is connected to der.
	Α.	Access point		
	В.	FTP		
	C.	Hotspot		
	D.	Channel		
18.	Mat thei	r descriptions g	rt syn given i	nbols given in Column-I with in Column-II.
		Column-I		Column-II
	(a)		(i)	Allows the flowchart to be drawn without intersecting lines or without reverse flow.
	(b)		(ii)	Indicates any type of internal operation inside the processor or memory.
	(c)		(iii)	Indicates the starting or ending of the program, process, or it interrupts the program.
	(d)		(iv)	Used for input/output operation.
	A.	(a) – (iii), (b) -	- (i), (d	c) – (iv), (d) – (ii)
	B.			i) - (iv), (d) - (iii)
	C.	(a) - (i), (b) -	(ii), (c	i) – (iii), (d) – (iv)
	D.	(a) - (iv), (b) -	- (i), (d	c) - (iii), (d) - (ii)
19.		ch of the followect to QBasic?	wing	statements is incorrect with
	Α.	.bas is the ext	ensio	n of a filename in QBasic.
	В.		r divid	es two numbers and returns
	_	Tl		

- The term used to remove an error is known as compilation.
- '/' operator divides the two numbers.

What would be the output of given QBasic code? 20.

LET X = 2While X < = 10 PRINT X; LET X = X + 2WEND

END

D.	8	6	4	2	0
C.	10	8	6	4	2
В.	2	4	6	8	10
Α.	0	2	4	6	8

Select the correct match with respect to Windows 10.

Show/hide the notification area icons. Used to switch from В. one application window to another. Used to restore C. minimize windows

on the desktop.

+ Alt	-	Used to restore windows to
M		maximize the
+ '''		desktop.

Which of the following options of slide master view can be used to automatically insert a logo on every slide in MS-PowerPoint 2016?



A.

D.

	1::-
•	1::-:

Both B and C

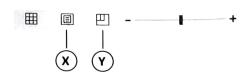
Which of the following statements hold(s) true with respect to Styles in MS-Word 2016?

Statement 1 : 21 : This option creates a style based on the formatting of the selected text.

Statement 2 : 4. : This option opens the Apply Style dialog box.

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

Identify (X) and (Y) in the given image with respect to MS-Excel 2016.



	×	Υ			
	Page Break Preview	Page Layout View			
A.	Page Layout View	Page Break Preview			
B.	Normal View	Page Layout View			
C.	page Layout View	Normal View			

	В. С.	Normal View Page Layout	View	Page Layout View Normal View			
/	Match the following. Column-II						
25.	Column-l			Column-II			
	(a)	CD (i)		It is a high-capacity optical storage device and can store up to 4.7 GB of data.			
	(b)	DVD	(ii)	It is the most common type of optical storage device and is used to store music, movies and data files.			
	(c)	USB drive	(iii)	They are small, removable and often used in digital cameras, smartphones, and other portable devices.			
	(d)	SD cards	(iv)	It is a small portable device that can be used to store data.			

- A. (a) (ii), (b) (i), (c) (iv), (d) (iii)
- B. (a) (i), (b) (ii), (c) (iii), (d) (iv)
- C. (a) (i), (b) (iii), (c) (ii), (d) (iv)
- D. (a) (ii), (b) (iii), (c) (iv), (d) (i)
- 26. The icon shown in the given image of MS-Excel 2016 can be used to ______.

ab ac

- A. Sort by multiple columns or rows
- B. Automatically add the selected cells
- C. Replace your selected text with the new text
- D. Both A and B
- 27. Which among the following computing devices was built by Gottfried Wilhelm von Leibniz?

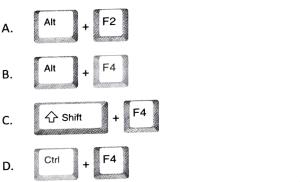




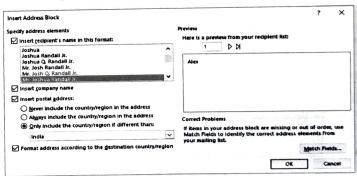




- 28. Which of the following options will be used to activate the selection pane in MS-Excel 2016?
 - A. Home tab \rightarrow Editing group \rightarrow Click on 'Find & Select' drop down list \rightarrow Selection Pane.
 - B. Page Layout tab \rightarrow Arrange group \rightarrow Selection Pane.
 - C. Page Layout tab \rightarrow Sheet Options group \rightarrow Selection Pane.
 - D. Both A and B
- 29. Which of the following options is used to close any active window in Windows 10?



- 30. Which of the following input devices allows direct data entry from source documents?
 - A. Data scanning devices
 - B. Point and draw devices
 - C. Digitizer
 - D. Speech recognition devices
- 31. Which of the following options, when clicked, will display the given dialog box while working with Mail Merge in MS-Word 2016?



- A. =
- 3.
- c. 🖺
- D. $\frac{1}{2}$

52.	res	nch of the following statements hold(s) true with pect to MS-Excel 2016?		C.	It can be used to highest or	l to s der.	sort the name in tables in l _{owest}	
		tement 1:		D.				
		summarize complex data in a Pivot						
	Sta	Table. Statement 2: It is used to create a table to			Which of the following types of memories contains the given features? Volatile in nature			
		organize and analyze related data.		•	Stores freque	ntly	accessed data and instructions	
	Α.	Only Statement 1			temporarily.		and instructions	
	В.	Only Statement 2		•	Allows to acc	ess (data randomly.	
	C.	Both Statement 1 and Statement 2		•			CPU performance.	
	D.	Neither Statement 1 nor Statement 2		(i)	ROM		(ii) Cache Memory	
33.	lder	ntify the following type of transmission media.		(iii)			(iv) USB drive	
	•	It refers to the physical channels through which		A.	(i) and (ii) onl	У		
		signals are directed along a defined path.		В.	(iii) and (iv) o	nly		
	•	It is generally preferred when we need to execute		C.	(ii) and (iii) or	nly		
		direct communication.		D.	(i) and (iv) on	ly		
	A.	Guided media	20	The	ability of a sy	ctor	m to cumpant	
	В.	Unguided media	38.	nro	cessor to alloca	ste 1	m to support more than one	
	C. Radio media			processor to allocate tasks between them is called				
	D.	Microwave media		_				
34.	Whi	ch of the following statement 1 11/2		Α.	Multitasking			
	com	ch of the following statements hold(s) true about puter viruses?		В.	Multiprocessin	ng		
				C.	Batching			
		ement 1 : A web scripting virus attacks web browser. This allows cyber criminals to	,	D.	Multiuser			
	attack major websites, such as social			39. Match the following.				
	C+-+	networking sites, email providers, etc.		•	Column-I		Column-II	
	Stat	ement 2: Network viruses are extremely dangerous because these largely affect files with .exe or .com extensions.		(a)	Super (Computer	i)	It is a general purpose computer that is designed for individual use.	
	A.	Only Statement 1		(b)	Mainframe (ii)	It is the fastest computer that	
	В.	Only Statement 2		. ,	·	•	can process billions of data	
	C.	Both Statement 1 and Statement 2					within a second.	
	D.	Neither Statement 1 nor Statement 2		(c)	•	iii)	It can process huge amount	
35.	Locking the taskbar prevents you fromin Windows 10.				Computer		of data, e.g., millions of transactions in a second and is used for real time transactions.	
	(i)	Customizing the Notification area		A.	(a) – (ii), (b) –	(iii)		
	(ii)	Enabling 'Auto-hide the taskbar' feature		В.	(a) - (i), (b) - (a)			
	(iii)	Resizing it		C.	(a) - (i), (b) - (a)			
	Α.	(i) only B. (ii) only		D.	(a) – (iii), (b) –		• • •	
	C.	(iii) only D. (i) and (ii) only	-					
			40.				is also known as a hierarchical	
36.		ch of the following statements is correct about -Merge in MS-Word 2016?			orm a hierarchy.		ode connects all other nodes	
	Α.	It makes it easy to send the same letter to a large		A.	Ring			
		number of people.		В.	Bus			
	В.	A single change made in the main letter will not be		C.	Tree			
		reflected in the letters of all the other recipients.		D.	Star			

AI, ROBOTICS AND INFORMATION TECHNOLOGY

Which of the following services is not offered by 41. Google?







- Identify the following.
 - It is a type of barcode that can be scanned easily by a digital device.
 - It stores information as a series of pixels in a square-shaped grid.
 - Optical Mark Reader Code Α.
 - Bar Code Reader В.
 - C. Quick Response Code
 - D. Magnetic Ink Character Recognition
- is a first supercomputer developed by 43. IBM that won a chess game against a reigning World Champion.

- Α. Param Yuva
- B. Deep Blue
- **EKA** C.
 - **Param**
- What is/are the role(s) of robots in an industry?
 - It reduces the amount of labor needed.
 - It increases productivity.
 - (iii) It thinks more creatively than human beings.
 - (i) only A.
 - (i) and (ii) only B.
 - (ii) and (iii) only C.
 - (i), (ii) and (iii)
- Which of the following devices comes under the 45. category of virtual reality system?







(i)

(i) only

(ii) and (iii) only

Α.

- C. (i) and (iii) only
- (i), (ii) and (iii)

ACHIEVERS SECTION

Which of the following statements is correct about 46. the given icon of Windows 10?



- This icon is used to change the date, time and time zone of your computer. To access this icon, Go to Start \rightarrow Type Control Panel \rightarrow Clock and Region.
- This icon is used to only set the time zone of your computer. To access this icon, Go to Start \rightarrow Windows Accessories \rightarrow Control Panel \rightarrow Clock.
- This icon is used to adjust your computer settings. To access this icon, Go to Start \rightarrow Control Panel \rightarrow Clock and Region.
- This icon is used to change user account settings. To access this icon, Go to Start \rightarrow Control Panel \rightarrow Clock and Region.

- 47. Select the correct match with respect to MS-Excel 2016 error types.
 - #REF! It occurs when, in a formula, a number is divided by zero.
 - ### It occurs when a cell reference was B. deleted after creating the formula.
 - #NULL! -C. It occurs when a formula miss punctuations, commas and quotation marks, etc.
 - D. #DIV/0! -It occurs when a formula, contains an incorrect cell reference.
- 48. What will be the output of the given QBasic code? **CLS**

SUM = 0

FOR I = 20 TO 2 STEP -2

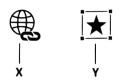
SUM = SUM + I

NEXT I

PRINT SUM

- 20
- В. 0
- C. 65
- D. 110

49. What are the functions of the given MS-PowerPoint 2016 options marked as X and Y?



- A. X It is used to create a link in your document for quick access to webpages and files.
 - Y It is used to give the selected object an action to carry out when you click it or mouse over it.
- B. X It is used to add a note related to the selected part of the document.
 - Y It is used to give the selected object an action to carry out when you click it or mouse over it.
- C. X It is used to insert SmartArt graphic to visually communicate information.
 - Y It is used to make or spot patterns and trends in your data.

- D. X It is used to create a link in the document for quick access to webpage and files.
 - Y It is used to insert SmartArt graphic to visually communicate information.
- 50. Select the incorrect match with respect to the internet
 - (i) WWW It is a collection of information, resources, pictures, sounds, multimedia on the internet that are linked and connected together.
 - (ii) IP address It is a six digits physical address associated with NIC.
 - (iii) FTP File transfer protocol is a method of transferring files between two computers on the internet.
 - (iv) URL It a text on a webpage that links to another document or webpage.
 - A. (ii) only
 - B. (ii) and (iv) only
 - C. (i), (ii) and (iiii) only
 - D. (ii), (iii) and (iv) only

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