SOF
SCIENCE OLYMPIAD FOUNDATION

Inspiring Young Minds
Through Knowledge Olympiads

CLASS 4

SET-B

2016-17

Name:..

Section:.......................... Roll No.:.................................

Contact No..

Total Questions: 35   Time: 1 hr.

NCO
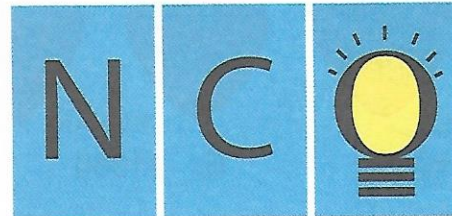
16TH SOF NATIONAL CYBER OLYMPIAD

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 **% of marks/grade** in last class clearly on the **OMR Sheet** and do not forget to sign it.

3. The Question Paper comprises three sections:

   Logical Reasoning (5 Questions), **Computers and Information Technology** (25 Questions) and **Achievers Section** (5 Questions)

   Each question in Achievers Section carries 2 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 in the OMR Sheet, use **HB Pencil** or **Blue / Black ball point pen** only. E.g.

Q. 16: _____ **means to hold down the left mouse button while you move the mouse pointer to a new place.**

A.   Single click   B.   Double click   C.   Dragging   D.   Left click

As the correct answer is option C, you must darken the circle corresponding to option C in the OMR Sheet.
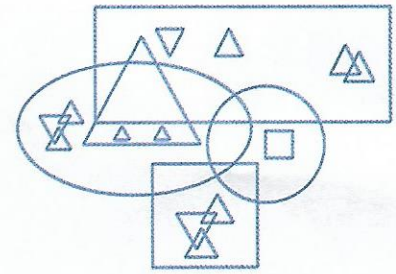
16. Ⓐ Ⓑ ● Ⓓ

7. Rough work should be done in the blank space provided in the booklet.

8. Return the OMR Sheet to the invigilator at the end of the exam.

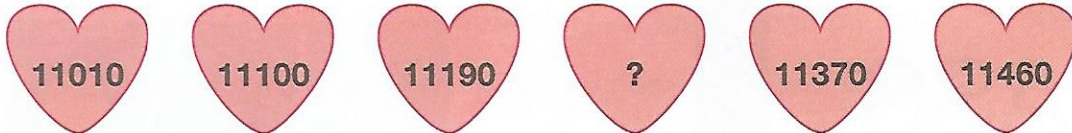9. Please fill in your personal details in space on top of this page before attempting the paper.

1. Find the number of triangles in the given figure.

   A. 16

   B. 12

   C. 15

   D. 14

2. Complete the number pattern given below.
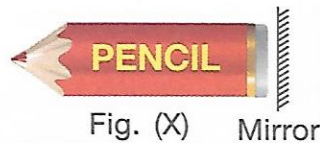
   11010   11100   11190   ?   11370   11460

   A. 11180   B. 11380   C. 11280   D. 11310

3. If ⬜ means ◖, ◖ means △ and △ means ⬛, then which of the following looks like a birthday cap?
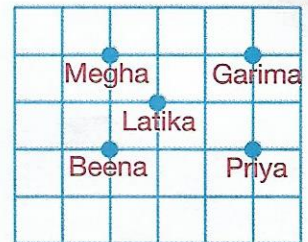
   A. ⬜   B. ◖   C. △   D. ⬛

4. Which of the following is the correct mirror image of Fig. (X)?

   Fig. (X)   Mirror

   A. PENCIL   B. PENCIL (mirrored)   C. PENCIL (mirrored)   D. PENCIL (mirrored)

5. Who is standing to the North of Priya?

   A. Megha

   B. Latika

   C. Garima

   D. Beena

SPACE FOR ROUGH WORK

6. Identify the following :
   - It is a manual calculating device.
   - It consists of nine (sometimes 10) sticks with numbers marked on them.
   - It was invented to perform long multiplication and divisions.

   A. Napier's Bones   B. Difference Engine   C. Arithmometer   D. Pascaline

7. Given here is a snapshot of Research task pane. What would happen when you click on the green arrow pointed by letter 'P' in a document in MS-Word 2010?

   A. The next word in the document will get shown in the 'Search for' box.

   B. Synonyms for the word 'go' will be searched.

   C. Word 'go' will get inserted at the current cursor position.

   D. Pronunciation of word 'go' will be played.
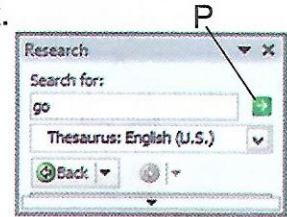
8. Arrange the following in ascending order of their invention.
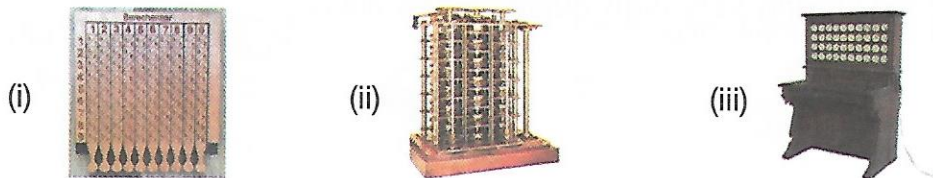
   (i)   (ii)   (iii)

   A. (i)→(ii)→(iii)   B. (iii)→(ii)→(i)   C. (ii)→(i)→(iii)   D. (i)→(iii)→(ii)

9. Select the CORRECT match with respect to MS-Word 2010.

   A. A˄ – Shift the selected text slightly above the baseline

   B. Aa – Used for changing the case of selected text

   C. abc – Delete the selected text

   D. A˅ – Can be used for applying reflection to selected text

10. A drawing is made by you in MS-Paint of Windows 7. What steps should be followed if you want to fill the entire desktop screen with this drawing?

    A. View tab → Display group →   B. View tab → Display group →

    C. Paint button →   → Screen   D. Paint button →   → Fill

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SPACE FOR ROUGH WORK

11. Which among the following is a stored program machine and the successor of ENIAC?

    A. ENIAC ONE   B. EDVAC   C. EDUSAC   D. PARAM

12. Select the INCORRECT match.

    A. ROM   – It stores a special program that helps to load the operating system when the computer is switched ON.

    B. RAM   – It affects the number and size of program that a system can run at a time.

    C. DVD   – It can store data on both sides.

    D. Hard disk – It is a main primary memory device found inside the CPU box.

13. Which of the following tools has not been used for creating the given drawing in MS-Paint of Windows 7?

    A.   B. A

    C.   D. Both A and B

14. Which of the following is a type of optical storage device which stores more data than a DVD and is mainly used for storing very high quality video files?

    A.   B.   C.   D.

15. A _____ is a standard that specifies the interaction between communicating entities in a computer network.

    A. Node   B. Protocol   C. Port   D. Server

16. Which of the following statements is/are CORRECT about computer peripheral?

    A. It is a core element of a computer system.

    B. Power supply and motherboard are examples of computer peripherals.

    C. It is dependent on computer system to perform its functionality.

    D. Both A and B

17. If the storage capacity of a flash drive is 4 GB, then which among the following can be saved in it?

    (i) A video file of 1250 MB   (ii) A backup file of 1 Terabyte

    (iii) A collection of songs of 1024 bytes

    A. Only (i)   B. Only (ii)   C. Only (iii)   D. Both (i) and (iii)

SPACE FOR ROUGH WORK

18. Arrange the following activities performed in sending a message in order of Input-Process-Output cycle.

(i) Message gets converted into data signals and travels by communication path.

(ii) A message is typed and send button is pressed.

(iii) Message got delivered to its intended recipient.

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

19. Which among the following can neither be classified as application software nor as utility software?

A.   B.   C.   D.

20. Match the devices given in Column-I with the functions they perform given in Column-II.

Column-I	Column-II
(a)	(i) Used with magnetic stripe cards
(b)	(ii) Uses laser light to read data
(c)	(iii) Used for processing of objective type answer sheet

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

21. Which of the following options determine the speed of a computer?

A. Speed of its processor and capacity of ROM.

B. Capacity of Hard disk.

C. Speed of its processor and operating system.

D. Speed of its processor and capacity of RAM.

22. Microphone and touchpads are used for providing input. Which of the following devices incorporates both of them in it?

A.   B.   C.   D.
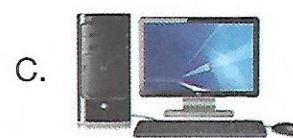
SPACE FOR ROUGH WORK

23. Identify the following :

  – It is a private network that is used only by those organisations who owns it, campus and corporate networks are its good examples.

  – It should be closed off to the general public and require a login for authorised users.

  A. Internet   B. Tetranet   C. Betanet   D. Intranet

24. What would happen after clicking the highlighted option in context menu of Sticky notes shown in the given snapshot of Windows 7?
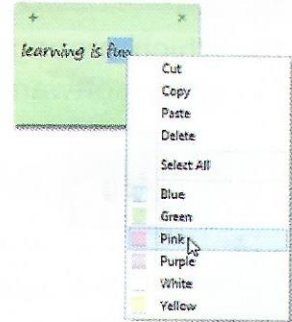
  A. Color of selected text will get change.

  B. Color of all the text will get changed.

  C. Color of Sticky notes will get changed.

  D. Color of desktop will get changed.

25. Unscramble the given word and select the statement which is CORRECT about it.

<p align="center">DARERAHW</p>

  A. It is the name of a term used for describing physical equipment of a computer system.
  B. It is the name of a system used for scanning the paper documents.
  C. It is the name of a program used to access websites.
  D. It is the name of a device that converts analog signals to digital signals.

26. Your teacher has asked you to write a short passage on Emerging Technologies using information from internet. Which of the following would not be required in this task?
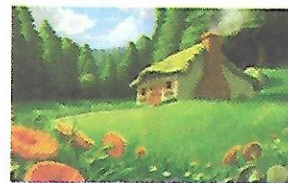
  A.   B.   C.   D.

27. Select the odd one out.

  A.   B.   C.   D.

28. Which of the following options is used for converting Picture-1 into Picture-2 in MS-Paint of Windows 7?

  A.   B.

  C.   D.

Picture-1   Picture-2

SPACE FOR ROUGH WORK

29. What is a smart city?

   A. A city in which use of traditional TVs is replaced by Smart TVs.

   B. A city in which majority of its population possess smartphones.

   C. A city that implements information and communication technologies in particular areas to provide better quality services to its citizens.

   D. Both A and B

30. You have accidentally deleted one of your important files while moving it to another folder. To recover the file you should first access the _____ in Windows 7.

   A.   B.   C.   D.

ACHIEVERS SECTION

31. Observe the snapshot given in Image-1 and Image-2. How would the text in Image-2 look, if following steps are performed in sequence in MS-Word 2010?

   The Mahabharata **is a story** about **a** great **battle.**

   Image-1

   The battle was fought in Kurukshetra near Delhi.

   Image-2

   (i)   Select all the text shown in Image-1.

   (ii) Click on .

   (iii) Click and drag the mouse over all the text shown in Image-2.

   A. The battle was fought in Kurukshetra near Delhi.

   B. **The battle was fought in Kurukshetra near Delhi.**

   C. The **battle** was fought **in** Kurukshetra **near** Delhi.

   D. The **battle** was **fought** in Kurukshetra near **Delhi.**

32. Which of the following statements hold true about the given device?

   Statement 1 : It is used for reading data from optical storage devices.

   Statement 2 : It is a multi-function device that incorporates the function of a fax machine.
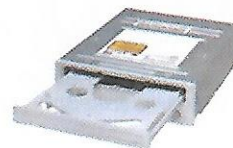
   A. Only Statement 1

   B. Only Statement 2

   C. Both Statement 1 and Statement 2

   D. Neither Statement 1 nor Statement 2

SPACE FOR ROUGH WORK

33. Which of the following is an artificial intelligence based program of Windows Phone 8.1 operating system that responds to natural language voice commands?

A. DuckDuckGo

B. KASPERSKY SECURITY

C. Cortana

D. CorelDRAW

34. Windows Explorer is one of the most important file managing application in Windows 7, which lets you view and manage the files and folders present on your computer. There are several methods to open this program. Which among the following is INCORRECT?

A. Press [Windows] and [E] keys simultaneously on the keyboard.

B. Go to Start button→All Programs→Accessories→Windows Explorer

C. Type winx in Run dialog box and press [Enter ⏎] key.

D. Both A and B

35. The given diagram shows a representation of LAN in a company. The device at center is responsible for providing data to all PCs connected in the network. Which of the following terms can be used to refer this device?
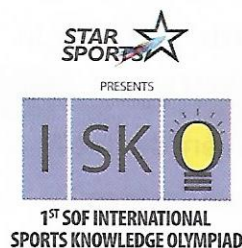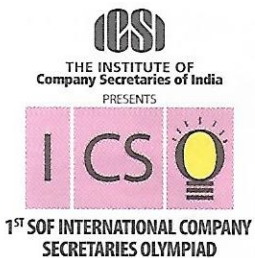
A. Browser

B. DNS

C. Server

D. Folder

SPACE FOR ROUGH WORK