SOF

SCIENCE OLYMPIAD FOUNDATION

Inspiring Young Minds
Through Knowledge Olympiads

CLASS 5

SET-B

Name: ....

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

Contact No..

Total Questions: 50   Time: 1 hr.

N C O
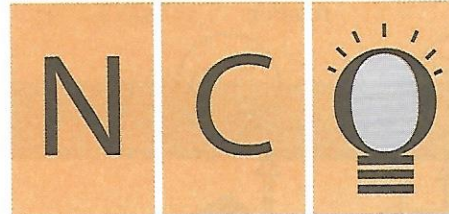
16TH SOF NATIONAL CYBER OLYMPIAD

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 (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 in 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 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.
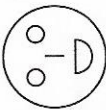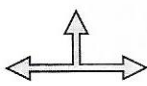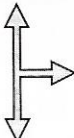
1. If 'Moon' is called 'Star', 'Star' is called 'Earth', 'Earth' is called 'Sun' and 'Sun' is called 'Mars', then where do we live?

   A. Moon
   B. Star
   C. Earth
   D. Sun

2. Select the CORRECT match.

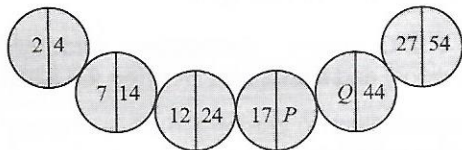 | Figures | Figures after $4\frac{1}{4}$ anticlockwise rotation |
   |---|---|

   A. –

   B. –

   C. –

   D. –

3. Find P and Q respectively in the given number pattern.

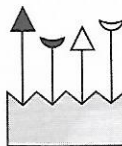   A. 22, 34
   B. 34, 22
   C. 34, 20
   D. 22, 19

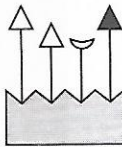4. Which of the following words CANNOT be formed from the letters of the given word?

   CHOREOGRAPHER
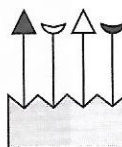
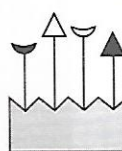   A. GRAPH
   B. CRAP
   C. CAMERA
   D. OGRE

5. There is a certain relationship between figures (i) and (ii). Establish a similar relationship between figures (iii) and (iv) by selecting a suitable figure from the given options which will replace the (?) in fig. (iv).
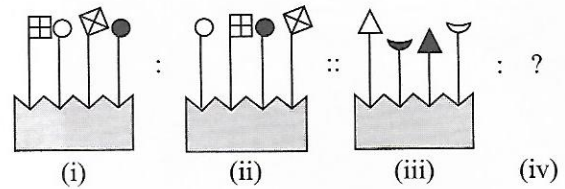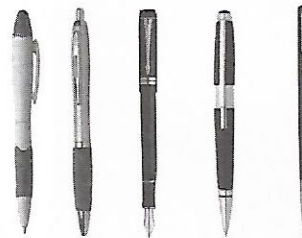

   A.
   B.
   C.
   D.

6. Some names of students and types of pens are given below. How many different combinations of 1 kind of pen and 1 student can be formed?

 | Name of Student |
   |---|
   | Megha |
   | Beena |
   | Garima |
   | Latika |
   | Priya |
   | Mini |

   A. 30
   B. 35
   C. 42
   D. 49

7. Study the following information carefully.
   - Trishika, Sidak and Sanchi likes ice-cream.
   - Sidak and Sanchi likes burger.
   - Trishika and Sidak likes pizza.
   - Only Trishika likes burger and chowmein.

   Who among the following likes all the four food items?

   A. Trishika
   B. Sidak
   C. Sanchi
   D. Can't be determined

8. Which of the following figures have atleast 2 lines of symmetry?

A.

B.

C.

D.
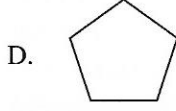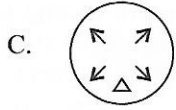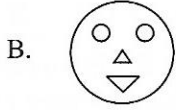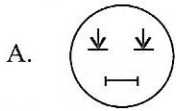
9. If in each of the following numbers, 1 is added to the middle digit, then which number will be the third highest?

488 514 425 435 587
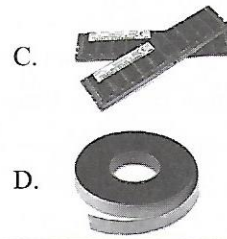
A. 488
B. 514
C. 435
D. 425

10. Find the odd one out.

A. 8 (34) 9
B. 5 (34) 12
C. 7 (144) 11
D. 9 (48) 15

COMPUTERS AND INFORMATION TECHNOLOGY

11. Identify the following :

– It was a working model of a proposed mechanical computer.
– Its design incorporated Input unit, Output unit, Store and a Mill.
– Mill was used to do all the arithmetic operations.

A. Tabulating Machine
B. Pascaline
C. Analytical Engine
D. Leibniz Calculator

12. Which of the following hardware devices generate characters or graphics on a paper by striking cluster of pins on an ink soaked ribbon?

A. Dot matrix printer
B. Flatbed plotter
C. Daisy wheel printer
D. Inkjet printer

13. Whenever we open an application program, it is loaded into the computer's temporary memory from where CPU can very quickly access the information about the program currently being run. Which amongst the following provides the temporary storage to active program in a computer?

A.

B.

C.

D.

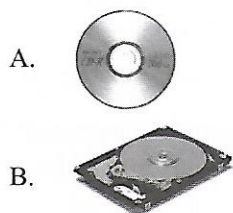14. Which of the following statements hold true about the given logo?

Statement 1 : It is a system for connecting electronic devices to each other or to internet using fiber optics.
Statement 2 : It is a wireless medium for exchanging data in a small network.

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

15. Select the INCORRECT match.

A. – Pointing device found mainly in laptop and notebook computers.

B. – Requires less space than a mouse for operation.

C. – It is a special type of optical scanner.

D. – It converts analog information into digital form.

16. A device is installed in Yuvika's school which helps students who cannot speak properly, to type the information they want to speak and then the device converts it into spoken words. Which type of system has been installed in her school?

    A. Optical Character Reader
    B. Speech Synthesizer
    C. Voice Reproduction System
    D. Optical Mark Reader

17. Which of the following options would replace letters P, Q and R to complete the table given below?

1 Byte	= P
Q	= 2^{20} bytes
1TB	= R

    A. P-1024 bits, Q-1 KB, R-1024 MB
    B. P-8 bits, Q-1 MB, R-1024 GB
    C. P-4 nibbles, Q-1 KB, R-1024 MB
    D. P-1024 bits, Q-1 MB, R-1024 MB

18. How would the text in the given snapshot display after selecting the option from the Drop Cap drop-down list in MS-Word 2010?

    You shall practice it daily

    A. Y ou shall practice it daily

    B. You shall practice it daily

    C. You shall practice it daily

    D. Y ou shall practice it daily

19. Which of the following is an electronic device that reads data printed in the form of black and white lines and then sends the information to the system connected with it?

    A.

    B.

    C.

    D.

20. Avika has drawn a text box in a document and now she wants to change its shape from rectangle to cloud. Which of the following options can be used to do so in MS-Word 2010?

    A.
    B.
    C.
    D.

21. In which of the following views of MS-PowerPoint 2010, there are several panes and each pane has its own scroll bar so that you can move around in one pane independently of the other panes?

    A. Normal
    B. Slide Sorter
    C. Notes Page
    D. Reading View

22. Clicking on which of the following options will display a rectangular frame with a magnifier in center, as shown in the given snapshot of MS-Paint of Windows 7?
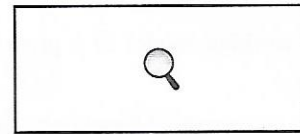
    A.
    B.
    C.
    D.

23. The given set of options can be seen in lower left corner of the screen while viewing a presentation in Slide Show view. Which among these (labelled by numbers 1, 2, 3 and 4) when clicked, will open the slide navigation menu in MS-PowerPoint 2010?
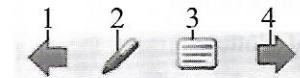
    A. 1
    B. 2
    C. 3
    D. 4

24. Select the odd one out.

    A.
    B.
    C.
    D. fedora

25. Using the ▢ option in MS-Paint, you can _____.

    A.   Switch between the Colors and Black and White mode

    B.   Add a Customised fill pattern in a shape

    C.   Change the size of drawing canvas

    D.   None of these

26. You have inserted header in a document and also want to use this header content in other documents. Which of the following options would replace "?" in the given sequence of steps if you want to display that header in the Header gallery for future use in MS-Word 2010?

Select the header content → In the Design tab of Header & Footer tools, click on [?] → Click on Save Selection to Header Gallery

    A.

    B.

    C.

    D.

27. Which of the following options will you select to stretch or elongate an image in MS-Paint of Windows 7?

    A.

    B.

    C.

    D.

28. Which of the following statements is CORRECT about multimedia?
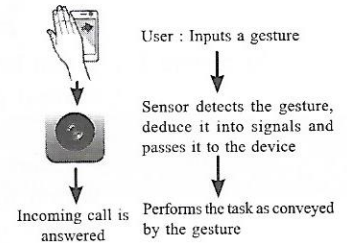
    A.   Multimedia applications can only store digital data they cannot process it.

    B.   A multimedia application with large set of audio and video take lesser time to launch than the one which contains text and static images.

    C.   Video, animations and audio are the continuous form of multimedia elements.

    D.   Both A and B

29. You want to connect a USB mouse with your system, you should plug it in the port which has _____ symbol above it.

    A.

    B.

    C.

    D.

30. Some smartphones allow the users to use some hand motions to perform certain tasks. Such as, a user can answer a call by just waving his hands over the sensor instead of touching the device, as depicted in the diagram. This technology is called _____.

    A.   Passcode

    B.   Air Blow

    C.   Air Gesture

    D.   Wave Interface

User : Inputs a gesture

Sensor detects the gesture, deduce it into signals and passes it to the device

Incoming call is answered

Performs the task as conveyed by the gesture

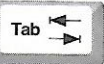31. Clicking on _____ separates the paragraph from the left margins using blank spaces in MS-Word 2010.

    A.

    B.

    C.

    D.
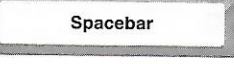
32. Given below are few initial steps to create a shortcut on the desktop for a folder saved in D drive of your computer. Which among the following is CORRECT?

    A.   Right click on desktop → New → Folder

    B.   Right click on desktop → New → Shortcut

    C.   Click on Computer icon on desktop

    D.   Right click on taskbar → Go to Toolbars

33. Today, mostly all organizations create their own web sites on Internet to distribute timely information about corporate achievements, new announcements, etc. This statement shows that internet is used for _____.

    A.   Organizational promotion

    B.   Customer support service

    C.   Resource sharing

    D.   Remote connections

34. Which among the following key combinations, when pressed, will maximize a restored window in a computer running Windows 7?

A. `Alt` + `M`

B. `Alt` + `Tab`

C. `Alt` + `Spacebar` + `X`

D. `Alt` + `Spacebar` + `M`

35. Which of the following statements hold true about the given icon of Format tab which gets active when you insert pictures in MS-PowerPoint 2010?

Statement 1 : It can be used when we want to treat several graphical objects as a single entity.

Statement 2 : Clicking on it opens the selection pane which displays list of all graphical objects in the current slide.

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

36. Personal assistants are programs that can be used to schedule meetings, book movie tickets, store and retrieve personal information such as contacts, birthdays etc. Which among the following is one such program?

A. Cortana

B. CorelDRAW

C.

D.

37. You can use internet to get information about any topic, but you need a web client to access any kind of information available via internet. Which of the following software serve as a web client?

A.

B.

C.

D. hike

38. The given diagram shows connection of various networking devices to the internet. Which among the following will replace "?" in the given diagram?
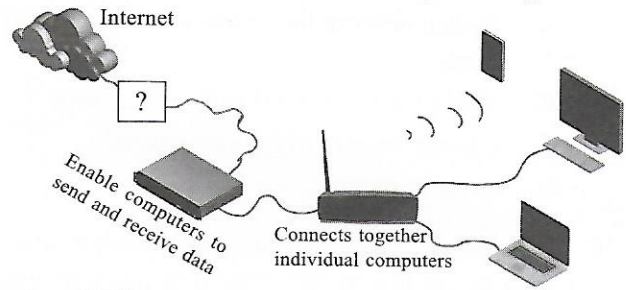
A. NIC
B. Modem
C. ISP
D. Server

39. Identify the following :
   − It serves as a medium in a communication system.
   − It is a type of wired transmission media.
   − It is most widely used communication medium for a telephone company network.

A. Twisted cables
B. Coaxial cables
C. Wi-Fi
D. Infrared rays

40. Which of the following is NOT an in-built entertainment application in Windows 7?

(i) LINE   (ii)

(iii)   (iv)

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

41. Videos can be stored using the AVI format. What does AVI stand for?

A. Audio Video Interface
B. Audio Video Interleave
C. Audio Video Interaction
D. Audio Video Internet

42. Which of the following is NOT required for a multimedia project?

A. High speed memory device
B. CUI based system
C. A high resolution display screen
D. A Fast processor

43. Main board and logic board are alternative names of which computer component?

A.

B.

C.

D.
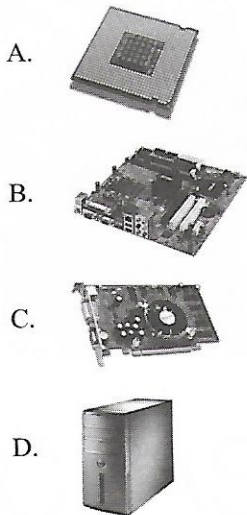
44. A _____ is the smallest computer which can function as a mobile phone, fax sender and internet browser. It combines computing, telephone, fax and networking features.

A. Laptop
B. Mainframe
C. PDA
D. Supercomputer

45. _____ is a set of routines that performs a variety of generalized operations such as sorting, searching, merging, copying, printing and maintenance on data files in your computer.

A. File utilities
B. File activator
C. File concerner
D. FTP

ACHIEVERS SECTION

46. You have created a lengthy document and inserted some pictures and text boxes in it. You want to quickly edit the text of the document and for that you want that the graphical elements shall not appear during the editing process. Which of the following views shall you enable for this purpose in MS-Word 2010?

A.

B.

C.

D.
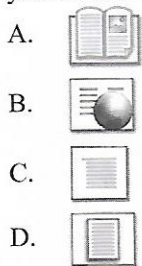
47. When does the given dialog box get displayed in MS-PowerPoint 2010?
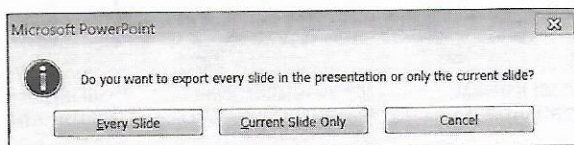
A. When you run a slide show of a presentation.
B. When you save a presentation in one of the graphics formats.
C. When you convert a SmartArt graphic to a shape.
D. When you create duplicate slides in a presentation.

48. Observe the given diagram, which shows the relationship among hardware, software and users of a computer system in the form of layered architecture. Which of the following layers does the task of coordinating operations of various hardware devices to optimize the performance of all devices?
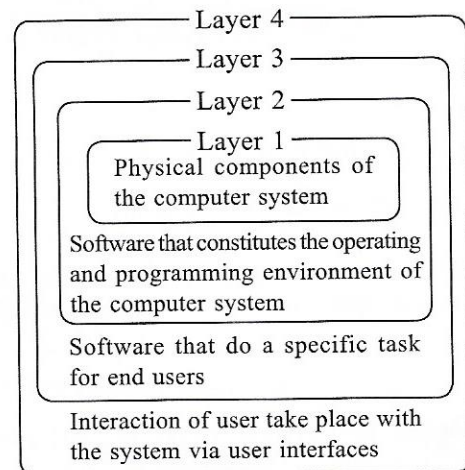
A. Layer 1
B. Layer 2
C. Layer 3
D. Layer 4

49. Select the INCORRECT match.

A. George Boole – First person to design a computer which had memory to store results.

B. Howard Aiken – Developed the first automatic sequence controlled calculator, the Mark I.

C. Blaise Pascal – Invented a mechanical calculator that used gears, wheels and dials.

D. John Atanasoff – Invented the first electronic digital computer.

50. Match the icons given in Column-I with the task they perform given in Column-II with respect to Windows 7.

Column-I		Column-II
(a)		(i) You can use it to check the Product ID of edition of Windows installed.
(b)		(ii) Allows you to change the resolution of your system.
(c)		(iii) Let you access utilities like disk defragmenter service.

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

SPACE FOR ROUGH WORK