SILVER ZONE FOUNDATION
NEW DELHI, INDIA

ENROLLMENT NUMBER:

STUDENT NAME:

Maximum Marks : 100
Duration : 60 Minutes
Total Questions : 50

Test Paper Type
BB

Class 8

iiO 16th INTERNATIONAL INFORMATICS OLYMPIAD 2019-2020

Instructions for the Candidates

1. Write your 12 digit Enrollment Number and your name on top of the Question Paper in the given space.
2. Keep the OMR Sheet in good/neat condition. Do not fold/damage the OMR Sheet.
3. Do not forget to sign the OMR sheet.
4. The Question Paper Booklet consists of 50 questions, divided into three sections.
5. Section-A: Computer Science (30 questions); Section-B: Reasoning and Aptitude (10 questions); Section–C: Scholar's Zone (10 questions).
6. Each question of Section-A carries 2 marks, Section-B carries 1.5 marks and that of Scholar's Zone carries 2.5 marks.
7. All the questions are compulsory and there is no negative marking.
8. Use of calculator or any other devices in the examination is strictly prohibited.
9. Choose only ONE OPTION as an answer.
10. BLUE/BLACK ball pen is preferred to darken the circle, however, in case of non-availability an HB pencil can be used. Mark your choice of answer in the OMR sheet, by darkening a circle as shown below.
    (A) (B) ● (D)
11. Rough work should be done on the blank sheet/space provided in the Question Paper Booklet.

1. The AutoSum button is present in which group of MS-Excel?
   A. Editing group
   B. Math group
   C. Function library group
   D. Calculation group

2. The tag used in HTML to link it with other URLs is:
   A. \<A\>
   B. \<H\>
   C. \<U\>
   D. \<L\>

3. The desirable properties of a website are:
   i. *A meaningful address*
   ii. *Help and search facilities*
   iii. *Links to related sites*
   iv. *Features that allow users to give feedback*
   v. *Hosting on a mainframe*
   A. i, ii, iii
   B. i, ii, iii, iv
   C. i, ii, iii, iv, v
   D. i, ii, iii, v

4. What is the meaning of Bandwidth in Network?
   A. Transmission capacity of a communication channel
   B. Connected computers in the network
   C. Class of IP used in network
   D. All of these

5. Which of the following IP address classes is multicast?
   A. Class A
   B. Class B
   C. Class C
   D. Class D

6. A list of protocols used by a system, one protocol per layer, is called:
   A. Protocol architecture
   B. Protocol suite
   C. Protocol stack
   D. None of these

7. Which of the following is not a pair tag?
   A. \<p\>
   B. \<u\>
   C. \<i\>
   D. \<img\>

8. Suppose there is a text in a document that is bold, red in color and with green background. We want to apply the same to another paragraph in one go. Which option should we use?
   A. Format Button
   B. Format Menu
   C. Format Painter
   D. Format Macro

9. Which HTML tag would be used to display power in expression (A+B)2?
   A. \<SUP\>
   B. \<SUB\>
   C. \<B\>
   D. \<P\>

10. In PowerPoint, the Header & Footer button can be found on the insert tab in _____.
    A. Illustrations group
    B. Object group
    C. Text group
    D. Tables group

11. What is the main folder on a storage device called?
    A. Root directory
    B. Interface
    C. Device driver
    D. Platform

12. When all the numbers between 0 and 100 in a range should be displayed in red color, apply:
    A. Use=if() function to format the required numbers red.
    B. Conditional Formatting command on the Format menu.
    C. Select the cells that contain numbers between 0 and 100 and then click red color in Text Color tool.
    D. All of these

13. Which of the following types of memory is used for cache memory?
    A. SRAM
    B. DRAM
    C. EDO RAM
    D. SDRAM

14. When a row of data is to be converted into columns:
    A. Copy the cells in row, select the same number of cells in row and paste.
    B. Copy the cells in column then choose Edit → Paste Special, then click Transpose and OK.
    C. Copy the cells then go to Format → Cells then on Alignment tab click Transpose check box and click OK.
    D. Select the cells then place the cell pointer on new cell and choose Edit → Paste Special, mark Transpose check box and click OK.

15. Convert the binary equivalent 10101 to its decimal equivalent.
    A. 21   B. 12
    C. 22   D. 31

16. A URL specifies which of the following?
    i.   Protocol used
    ii. Domain name of the server hosting web page
    iii. Name of the folder with the required information
    iv. Name of the document formatted using HTML
    v.   Name of ISP
    A. i, ii, iii, iv   B. ii, iii, iv, v
    C. i, iii, iv   D. i, ii, iii, v

17. What is the main difference between a mainframe and a supercomputer?
    A. A supercomputer is much larger than a mainframe computer.
    B. A supercomputer is much smaller than a mainframe computer.
    C. A supercomputer is focussed to execute few programs as fast as possible while a mainframe computer uses its power to execute many programs concurrently.
    D. A supercomputer is focussed to execute as many programs as possible while a mainframe computer uses its power to execute few programs as fast as possible.

18. The acronym of WORM in a Computer System is:
    A. Write Only Read Only
    B. Write Once Read Many
    C. Write Only Read Memory
    D. Write Once Read Memory

19. What is the minimum header size of an IP packet?
    A. 16 bytes   B. 10 bytes
    C. 20 bytes   D. 32 bytes

20. The number of bits used to store a BCD digit is:
    A. 8   B. 2
    C. 4   D. 1

21. Convert decimal 64 into binary.
    A. 01010010   B. 01000000
    C. 00110110   D. 01001000

22. Which of the following attributes of text box control allows to limit the maximum character?
    A. size   B. len
    C. maxlength   D. All of these

23. All of the following are non-volatile memory except:
    A. ROM   B. PROM
    C. Flash memory D. RAM

24. The Compact Disk (CD) was invented by:
    A. Yoshiro Nakamatsu
    B. James Russell
    C. Jean Bartik
    D. Robert Dennard

25. How many binary digits are required to count till 10010?
    A. 7   B. 2
    C. 3   D. 100

26. Which is not a property of attribute behaviour of <Marquee> tag?
    A. Alternate   B. Blur
    C. Scroll   D. Slide

27. What do you mean by broadcasting in networking?

    A. It means addressing a packet to all machines.

    B. It means addressing a packet to some machine.

    C. It means addressing a packet to a particular machine.

    D. It means addressing a packet to accept a particular machine.

28. A non-volatile type of memory that can be programmed and erased in sectors, rather than one byte at a time, is:

    A. Flash memory   B. MPROM

    C. EPROM   D. EEPROM

29. The Cortana is named after a character from which of the following video game series?

    A. Halo   B. Final Fantasy

    C. Fable   D. Destiny

30. Which of the following is a feature of windows 10 that adjusts a device's user interface to accommodate different from factors?

    A. Continuum   B. Flexi

    C. Hub   D. Unify

Section–B (Reasoning and Aptitude)

31. Find the missing term.

    3, 4, 11, 60, 117, 630, ?

    A. 945   B. 1049

    C. 1153   D. 1500

32. Study the following information carefully and answer the questions given below:

    • *'P @ Q' means 'P is mother of Q'.*

    • *'P + Q' means 'P is wife of Q'.*

    • *'P $ Q' means 'P is brother of Q'.*

    • *'P % Q' means 'P is father of Q'.*

    • *'P & Q' means 'P is husband of Q'.*

    Which of the following means A is maternal grandmother of D?

    A. A + M % L + D

    B. B $ A @ D % K & Q

    C. A @ T + N % D $ L

    D. A + H % M $ K % D

33. To establish the same relationship between two pair of terms on either side of '::' choose the option that will replace the question mark?
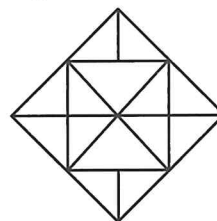
    *D * P * O : 158 : : G * E * M : ?*

    A. 85   B. 96

    C. 100   D. 123

34. If *'ski rps tri'* stands for *'nice Sunday morning'*; *'teh sti rps'* stands for *'every Tuesday morning'* and *'ski ptr qlm'* stands for *'nice market place.* What would *'Sunday'* stand for?

    A. ski   B. rps

    C. tri   D. qlm

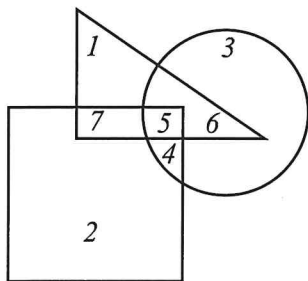35. How many triangles are there in the following figure?

    A. 18   B. 28

    C. 20   D. 24

36. How many such pairs of letters are there in the word 'HORIZON' each of which has as many letters between them in the word as in the English Alphabet?

    A. One

    B. Two

    C. Three

    D. Four

37. The following questions are based on the diagram given below. In the diagram, the triangle stands for graduates, square stands for membership of professional organisations and the circle stands for membership of social organisations. Read each statement and find out the appropriate number(s) to represent the people covered by the given statement.

Number of graduates in professional organisations only

A. 4   B. 5

C. 6   D. 7

38. What comes next in the following pattern?

5	7	4	19
12	3	17	4
3	11	9	10
8	5	13	?

A. 14   B. 19

C. 23   D. 31

Directions (39 & 40): *Study the information and answer the given questions:*

Eight persons are sitting around a circular table. Some of them are facing inside the center while some are facing outside the center. F sits third to the left of L. G sits third to the right of M who is facing inside the center. E sits second to the left of G. Both K and H sits immediate left to each other. Only two persons sit between E and I. F faces same direction as H but opposite to L. K sits second to the left of E. K and I facing same direction but opposite to G.

39. Who among the following person sit immediate right of K?

A. G

B. H

C. M

D. F

40. What is the position of E with respect to I?

A. Second to the left

B. Third to the right

C. Immediate right

D. Fourth to the right

Space for Rough Work

41. In MS-Excel, Ctrl + G is used to:
    A. open Paragraph Dialog box activating Goto Tab.
    B. open Page Setup Dialog box activating Goto Tab.
    C. open Find and Replace Dialog box with activating Goto Tab.
    D. open Goto Dialog box.

42. Cumulative addition of four bits $(1 + 1 + 1 + 1)$ gives:
    A. 1111
    B. 111
    C. 100
    D. 1001

43. <SCRIPT> ... </SCRIPT> tag can be placed within _____.
    A. header
    B. body
    C. Both A and B
    D. None of these

44. The storage that supplements the primary internal storage of a computer is known as:
    A. Secondary storage
    B. Primary storage
    C. Back-end storage
    D. Background storage

45. In Windows 10, what is the shortcut key to Open programs that are pinned to the task bar?
    A. Ctrl + [1][2][3][...]
    B. Windows + [1][2][3][...]
    C. Alt + [1][2][3][...]
    D. Shift + [1][2][3][...]

46. A feature of MS-Word that saves the document automatically after certain interval is available in:
    A. Save tab on Options dialog box
    B. Save As dialog box
    C. Both A and B
    D. None of these

47. How can you disable the extended selection mode?
    A. Press F8 again to disable
    B. Press Del to disable
    C. Press Esc to disable
    D. Press Enter to disable

48. Which of the following statements is/are true?
    A. You can insert text boxes from drawing toolbar in PowerPoint.
    B. You cannot insert text boxes from drawing toolbar in PowerPoint.
    C. Text boxes are provided when you choose a layout and can't be inserted afterwards.
    D. All of these

49. Which of the following languages is used to write animation and games in browser?
    A. Java
    B. HTML
    C. C++
    D. C Programming

50. DNS can obtain the _____ of host if its domain name is known and vice versa.
    A. station address
    B. IP address
    C. port address
    D. checksum

Space for Rough Work