## Trimrose Schools

Affiliated to the CISCE Board for ICSE \& ISC
Affiliated to the Cambridge University for IGCSE, AS \& A Level An ISO 9001:2015 Certified Institution

## NATIONAL PRIMTALENT OLYMPIAD EXAMINATIONS CYBER



Guidelines for the Candidates

| 1 | Please check your Name, Class and Section on the OMR sheet provided to <br> you. |
| :--- | :--- |
| 2 | In case, OMR sheet with your name is missing, please fill in information <br> about yourself in the blank sheet provided before start of exam. |
| 3 | All questions are compulsory. There is no negative marking. Use of <br> calculator is not permitted. |
| 4 | There is only ONE correct answer. Choose only ONE option for an answer. <br> 5 |
| 6 | To mark your choice of answers by darkening the circles in OMR sheet, use <br> HB Pencil or Blue/Black ball point pen only. |
| 7 | Return the OMR sheet to the invigilator at the end of the exam |
| 8 | Please fill in your personal details in space on the top of this page before <br> attempting the paper |
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## SECTION A - LOGICAL REASONING

1. Use inductive reasoning to determine the next two terms in the sequence. $1,3,7,15,31, \ldots$
A. 41,53
B. 63,127
C. 69,145
D. 44,57
2. Which of the figures can be used to model an even integer?


Figure A


Figure C


Figure B


Figure D
A. Figures $A \& C$
B. Figures A \& B
C. Figures C \& D
D. Figures B \& D
3. Which of this does not belong to the group?
A. 25-5
B. (b) $16-4$
C. $144-12$
D. 64-7

4．Identify the figure that completes the pattern．
（X）
（2）
（3）
（4）

A． 2
B． 3
C． 4
D． 1

5．Complete the series

MHZ，NIW，OKT，PNQ，

A．RRN
B．QRN
C．QRM
D．QQN

6．A woman introduces a man as the son of the brother of her mother．How is the man related to the woman？

A．Uncle
B．Grandson
C．Cousin
D．Son

7．T，R，P，N，L， $\qquad$ ？

A．J，G
B．J，H
C． $\mathrm{K}, \mathrm{H}$
D．K，
8. In a row of a class has 31 girls, when Ritu has shifted by 6 places towards the left, she became $16^{\text {th }}$ from the right end. What was her position before from the left end of the row?
A. 23
B. 21
C. 22
D. 25
9. A dice is numbered from 1 to 6 in different ways.

If 1 is adjacent to 2,4 and 6 , then which of the following statements is necessarily true?
A. 2 is opposite to 6
B. 1 is adjacent to 3
C. 3 is adjacent to 5
D. 3 is opposite to 5
10. Tanya is older than Eric.

Cliff is older than Tanya.
.Eric is older than Cliff.
If the first two statements are true, the third statement is
A. True
B. False
C. Uncertain
D. none
11. Find out which of the figures (1), (2), (3) and (4) can be formed from the pieces given in figure $(X)$.

(X)

(1)
(2)
(3)
(4)
A. 1
B. 2
C. 4
D. 3

## SECTION B - COMPUTERS AND INFORMATION TECHNOLOGY

12. What is the ASCII code for A?
A. 97
B. 65
C. 66
D. 98
13. Which of the following controls the process of interaction between the user and the operating system?
A. User interface
B. Language translator
C. Platform
D. Screen saver
14. The high level language program must go through various process except
$\qquad$ before execution
A. Linking
B. Loading
C. Controlling
D. Translation
15. The chart that contains only function flow but no code is called as
A. Flow chart
B. Structure chart
C. Both A \& B
D. None
16. What type of resource is most likely to be a shared common resource in a computer network?
A. Printers
B. Speakers
C. Floppy disk drives
D. Keyboards
17. A hardware or software designed to guard against unauthorized access to a computer network is known as $\qquad$
A. Hacker-proof program.
B. Firewall.
C. Hacker-resistant server.
D. Encryption safe wall.
18. What does a Firewall do?

A. Protects against hackers.
B. Protects against computer viruses
C. Protects against threats from inside your organization.
D. None of the above.
19. What type of computers are client computers (most of the time) in a client-server system?
A. Mainframe
B. Mini-computer
C. Microcomputer
D. PDA
20. After the programmer plans the logic of the program, he/she will next
A. Understand the program
B. Translate the program
C. Code the program
D. Test the program
21. A normal CD- ROM usually can store up to $\qquad$ data?
A. 680 KB
B. 680 Bytes
C. 680 GB
D. 680 MB
22. In latest generation computers, the instructions are executed
A. Parallel only
B. Sequential only
C. Both sequential and parallel
D. All of above
23. The symbol displayed in the given flowchart is called a/ an $\qquad$

A. On page connector
B. Off page connector
C. Terminal symbol
D. Decision Symbol
24. Jayant is drawing a flow chart in which he has to show a step which needs to be calculated manually. Which of the following shapes will he select for that step?
A.

B.

C.

D.

25. What is the name of first computer virus?
A. The Famous
B. HARLIE
C. PARAM
D. Creeper
26. Which code will make your background red in HTML?
A. <body style=background-color:red;>
B. <body style="background-color:yellow;">
C. <body style="background-color:red;">
D. <body colormybg="background-color:red;"
27. Advantages of the network?
A. Expensive Hardware
B. Specialist staff required
C. Communication
D. Hacking
28. Which is not the reserved keyword for Java Programming language
A. int
B. char
C. try
D. var
29. Which is/are true for a variable in Java
i. Numeric variables are used to assign both alphabets, digits or special characters
ii. Variable name should not include a space in between the characters
iii. Variable name can have 7 characters.
iv. Data type of the variable depends upon the constant assigned to it.
A. ii and iii
B. i and iv
C. i and ii
D. ii and iv
30. The primitive data type used to declare the fractional numbers are called
$\qquad$ .
A. Integers
B. Boolean
C. Floating numbers
D. Characters
31. What is the name of the viruses that fools a user to download and/or execute them by pretending to be useful applications?
A. Cracker
B. Worm
C. Trojan horses
D. Key logger
32. If you wanted to add links to your web page - what tag would you use?
A. $\langle a\rangle\langle/ a\rangle$
B. $\langle\mathrm{P}\rangle$
C. <Link>
D. <div>
33. Mathematical function in Java that returns the rounded value down to the nearest integer
A. floor (a)
B. ceil (a)
C. abs (a)
D. round (a)
34. Which of these is not a peripheral, in computer terms?
A. Monitor
B. motherboard
C. mouse
D. keyboard
35. What is the name of the computing device shown in the picture?

A. ENIAC
B. An old telephone system
C. An electricity box - like those find on a house, but larger for a business.
D. ENAIC
36. The latest version of windows (Windows 10) was released in:

## Hi. I'm Cortana.

Ask me a question!
A. 2014
B. 2016
C. 2015
D. 2013
36. This image is an example of a motherboard for $\qquad$ ?

A. Calculator
B. Mobile Phone (Cell Phone)
C. Laptop
D. Drone
37. What is the AutoComplete feature of MS Excel?
A. It automatically completes the abbreviated words
B. It completes text entries that match an existing entry in the same column
C. It completes text and numeric entries that match an existing entry in the same column
D. It completes text entries that match an existing entry in the same Worksheet
38. A cyber bully is someone who $\qquad$
A. Chats with you online
B. Invites you to a party through facebook
C. Impersonate others online
D. Uses the internet to get famous
39. In FTP, a file can be organized into records, pages, or a stream of bytes to attribute the $\qquad$
A. data structures
B. transmission modes
C. None of the choices are correct
D. file types
40. The intersection of a column and a row is called a $\qquad$ .

A. gridline
B. cell
C. value
D. formula
41. What coding would be used to define a header cell in an HTML table
A. th>Month</th>
B. $<t d>$ Month</td>
C. <h1>Month</h1>
D. <h2>Month</h2>
42. CSS stands for?
A. Closed Source Style
B. Crucial Style Sheets
C. Cascading Style Sheets
D. Corresponding Static Style
43. Which format usually works best for photos?
A. JPEG
B. DOC
C. GIF
D. WAV
44. Two or more computers connected together over a wide geographical area (e.g. county, country, globe). What type of network is this?
A. LAN
B. School Network
C. WAN
D. The Internet
45. What would be the formula to divide A2 by the sum of A1 and A3?
A. $=A 1+A 3 / A 2$
B. $=(A 1+\mathrm{A} 3) / \mathrm{A} 2$
C. $=A 2 /(A 1+A 3)$
D. $=A 2 / A 1+A 3$

## SECTION C - ACHIEVERS SECTION

46. Given figure shows a type of network topology. Name the topology:

A. Tree topology
B. Bus Topology
C. Ring topology
D. Star topology
47. Give the output for the following Java program segment
float $x=3.54$
double $y=1.05$
System. out. println(Math. floor(x));
System. out. println(Math.ceil(y));
A. 3.50 and 1.00
B. 3.00 and 1.00
C. 4.00 and 2.00
D. 3.00 and 2.00
48. A detailed flowchart is called as $\qquad$ .
A. Stack
B. Macro
C. Micro
D. Union
49. What is the cell address for Mr. Bates 2007 Salary?

|  | A | B | C | D | E |
| ---: | :--- | ---: | ---: | ---: | ---: |
| $\mathbf{1}$ | Teacher's Salary |  |  |  |  |
| $\mathbf{2}$ |  |  |  |  |  |
| $\mathbf{3}$ | Teacher | 2006 Salary | 2007 Salary | 2008 Salary | Total Salary |
| $\mathbf{4}$ | Mrs. Hathaway | 29000 | 32000 | 60000 |  |
| $\mathbf{5}$ | Mrs. Schmidtt | 24000 | 33000 | 46000 |  |
| $\mathbf{6}$ | Mr. Galloway | 28000 | 33500 | 34560 |  |
| $\mathbf{7}$ | Mrs. Reed | 35000 | 41000 | 42510 |  |
| $\mathbf{8}$ | Mr. Plinkworth | 43000 | 52000 | 53150 |  |
| $\mathbf{9}$ | Mrs. Satterwhite | 26000 | 32250 | 39000 |  |
| $\mathbf{1 0}$ | Mr. Florez | 73500 | 76900 | 78000 |  |
| $\mathbf{1 1}$ | Mrs. Santina | 51000 | 64860 | 65600 |  |
| $\mathbf{1 2}$ | Mrs. Woodacre | 38675 | 43870 | 45300 |  |
| $\mathbf{1 3}$ | Mr. Bates | 54600 | 58890 | 60000 |  |
| $\mathbf{1 4}$ |  |  |  |  |  |
| $\mathbf{1 5}$ | Highest Salary |  |  |  |  |
| $\mathbf{1 6}$ | Lowest Salary |  |  |  |  |
| $\mathbf{1 7}$ | Average Salary |  |  |  |  |
| $\mathbf{1 8}$ | Median Salary |  |  |  |  |
| $\mathbf{y}$ |  |  |  |  |  |

A. C
B. 13
C. 13 C
D. C 13
50. Which of the following is not a type of spoofing?
A. email
B. ip
C. application
D. Domain

