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ICO INTERNATIONAL CYBER OLYMPIAD	NICO NATIONAL INTERACTIVE SCIENCE OLYMPIAD	NIMO NATIONAL INTERACTIVE MATH OLYMPIAD	NBTO NATIONAL BIOTECHNOLOGY OLYMPIAD	IEO INTERNATIONAL ENGLISH OLYMPIAD	IGO INTERNATIONAL G.K. OLYMPIAD	BIFO BSE INTERNATIONAL FINANCE OLYMPIAD	NIPO NATIONAL IIT-PMT OLYMPIAD
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Level - 1 : All Level-1 successful* participants will get certificate, aptitude report and online subscription, and school toppers will be eligible for school hero medals.

Level - 2 : School toppers* will be selected for level-2-National level - online computer based interactive test held at exam centres all over India. Besides selection for level-3, winner will get merit certificate, medals, educational CDs, laptop, scholarship and other prizes. There is no level 2 in Art, Cricket, Cyber, NIPO and Biotech.

Level - 3 : Toppers will qualify# for level 3-International level-where you will compete with students globally. Get selected for EHF's International Olympiad training camp. Only Indian organization giving students exposure to global competitions. Represent India & win laurels. Guidance by top scientists. Prizes ranges from cash (millions of \$), gadgets, foreign trips, publicity, fame, scholarships, Internships, conference participation and more.

* # See prospectus/website for details

1. You are allowed additional 10 minutes to fill the required details in the **RESPONSE SHEET (OMR)**.
2. The question paper is made as per syllabus guidelines & pattern given in the information Booklet. The Question Paper for Classes 1 to 6 contains 25 Questions each to be answered in 40 minutes. The Question paper for classes 7 to 12 contains 50 Questions each to be answered in 60 minutes. All questions are compulsory. Further instructions are given in the instruction letter to the teacher.
3. Use the response sheet to mark your responses by darkening the required circle. The response sheet has to be returned to the foundation, duly filled in. **THE STUDENT CAN RETAIN THE QUESTION PAPER.**

EHF
INTERNATIONAL
CYBER
OLYMPIAD

ICO

11
Class

A1
Paper
Code

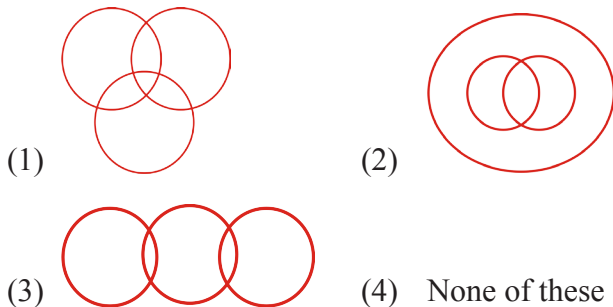
LEVEL - 1

MENTAL ABILITY

1. If 'P + Q' means 'P is the brother of Q'; 'P × Q' means 'P is the father of Q'; 'P ÷ Q' means 'P is the mother of Q'; which of the following would mean 'R is the son of M' ?
(1) $M \times S \times R$ (2) $M + R \times S$
(3) $M \div R \times S$ (4) None of these
2. Pointing to a photograph of a girl, Manoj said "She has no sister or daughter but her mother is the only daughter of my mother". How is the girl in the photograph related with Manoj's mother?
(1) Sister in law (2) Grand daughter
(3) Daughter in law (4) None of these
3. If COUNTRY is coded in certain way as EMWLVPA, ELECTRORATE will be coded in the same manner as—

- (1) CJCEFQPYWC (2) CJGERQTYVG
(3) GJGAVMTYVC (4) None of these
4. In a tournament 14 teams play league matches. If each team plays against every other team once only then how many matches are played?
(1) 85 (2) 105
(3) 91 (4) None of these
5. Half of the villagers of a certain village have their own houses. One fifth of the villagers cultivate paddy. One-third of the villagers are literate. Four-fifth of the villagers are below twenty five. Then, which one of the following is certainly true?
(1) All the villagers who have their own houses are literate.
(2) A quarter of the villagers who have their own houses cultivate paddy.

- (3) Some villagers under twenty five are literate.
 (4) None of these
6. If '+' means 'divide', '-' means 'equal', '×' means 'add', '÷' means 'is greater than', '=' means 'is less than', '>' means 'multiply' and '<' means 'subtract', then which one of the following choices is correct?
 (1) $5 + 2 \times 1 = 3 + 4 > 1$
 (2) $5 > 2 \times 1 - 3 > 4 < 1$
 (3) $5 \times 2 < 1 - 3 < 4 \times 1$
 (4) None of these
7. In a queue of 70 persons at the fee counter of a college Mohan's position from the window is 54th. How many persons are behind him?
 (1) 15 (2) 17
 (3) 16 (4) None of these
8. How many pairs of letters in the word 'CHAIRS' have as many letters between them in the word as in the alphabet?
 (1) 2 (2) 3
 (3) 1 (4) None of these
9. If Z = 52 and ACT = 48, then BAT will be equal to
 (1) 39 (2) 41
 (3) 46 (4) None of these
10. Which of the following Venn-diagram correctly illustrates the relationship among the classes $\bar{A} : \bar{A}$ Tennis fans, Cricket players, Students



COMPUTERS

11. Comments in XML document is given by
 (1) `<?-- This is comment -- >`
 (2) `<!-- This is comment -- !>`

- (3) `<!-- This is comment -- >`
 (4) None of these
12. The tag used in HTML to link it with other URL is:
 (1) `` (2) `<A>`
 (3) `<U>` (4) None of these
13. Which of the following statements can be used for multiple branching?
 (1) IF THEN ELSE
 (2) ON GOTO
 (3) WHILE.....WEND
 (4) None of these
14. Boolean algebra is also known as:
 (1) Digital Algebra
 (2) Logical Algebra
 (3) Switching Algebra
 (4) None of these
15. According to the Demorgan's law $A + B$ is equal to:
 (1) $A . B$
 (2) AB
 (3) $A + B$
 (4) None of these
16. The statement to reserve memory locations for an array M arranged in 12 columns and 20 rows may be:
 (1) DIMM (20, 12)
 (2) DIM (12, 20)
 (3) DIMM (12, 20)
 (4) None of these
17. The statement DIM C (30' 50) would reserve?
 (1) 1500 locations
 (2) 1800 locations
 (3) 80 locations
 (4) None of these
18. Which of the following variables are related to ON ERROR GOTO statement?
 (1) ERR
 (2) ERL

- (3) Both (1) and (2)
 (4) None of these
- 19.** ASCII stands for-
- (1) American Standard Currency for International Interchange
 - (2) American Standard Code for Information Interchange
 - (3) American Standard codes for Information Interchange
 - (4) None of these
- 20.** A computer program that converts an entire program into machine language is called a/an
- (1) Interpreter
 - (2) Compiler
 - (3) Linker
 - (4) None of these
- 21.** An error in a software is often referred as _____ .
- (1) squid
 - (2) leech
 - (3) bug
 - (4) none of these
- 22.** Storage of 1 KB means the following number of bytes:
- (1) 1000
 - (2) 964
 - (3) 1024
 - (4) None of these
- 23.** Which of the following is not the characteristic of software?
- (1) Software does not wear out
 - (2) Software is flexible
 - (3) Software is always correct
 - (4) None of these
- 24.** Which of the following operations can be performed on the file "NOTES.TXT" using the below code?
- ```
FILE *fp;
fp = fopen("NOTES.TXT", "r+");
```
- (1) Reading
  - (2) Writing
  - (3) Read and Write
  - (4) None of these
- 25.** What is Firewall?
- (1) a Military system
  - (2) a security system
  - (3) an Internet address
  - (4) none of these
- 26.** Every Computer system on the Internet has
- (1) a domain name
  - (2) an IP address
  - (3) both (1) and (2)
  - (4) none of these
- 27.** All of the following are examples of real security and privacy risks EXCEPT:
- (1) hackers
  - (2) spam
  - (3) viruses
  - (4) none of these
- 28.** Apple Macintoshes (Macs) and PCs use different \_\_\_\_\_ to process data and different operating systems.
- (1) languages
  - (2) methods
  - (3) CPUs
  - (4) none of these
- 29.** Match the following terms with their approximate size:
- |                |                        |
|----------------|------------------------|
| (i) Kilobyte   | (1) one million bytes  |
| (ii) Byte      | (2) eight bits         |
| (iii) Gigabyte | (3) one thousand bytes |
| (iv) Megabyte  | (4) one billion bytes  |
| (v) Terabyte   | (5) one trillion bytes |
- (1) c, b, d, a, e
  - (2) b, c, a, d, e
  - (3) a, d, e, c, b
  - (4) none of these

30. Which of the following is an interactive programming language?
- (1) COBOL
  - (2) FORTRAN
  - (3) PASCAL
  - (4) None of these
31. On the Task bar the time is shown in the \_\_\_\_\_ .
- (1) start menu
  - (2) desktop
  - (3) notification area or tray
  - (4) none of these
32. A JPG is
- (1) A Jumper Programmed Graphic
  - (2) A format for an image file
  - (3) A type of hard disk
  - (4) None of these
33. Changing computer language of 1's and 0's to characters that a person can understand is
- (1) Highlight
  - (2) Clip art
  - (3) Decode
  - (4) None of these
34. Which of the following statements is preferred to create a string "Welcome to Java Programming"?
- (1) String str = "Welcome to Java Programming"
  - (2) String str = new String ("Welcome to Java Programming")
  - (3) String str; str = "Welcome to Java Programming"
  - (4) None of these
35. Which of the following statements about the Java language is true?
- (1) Both procedural and OOP are supported in Java.
  - (2) Java supports only procedural approach towards programming.
  - (3) Java supports only OOP approach.
  - (4) None of these
36. The observation that a bubbled input OR gate is interchangeable with a bubbled output AND gate is referred to as:
- (1) De Morgan's second theorem
  - (2) The commutative law of addition
  - (3) The associative law of multiplication
  - (4) None of these
37. The part of algorithm which is repeated for the fixed number of the fixed number of times is classified as
- (1) iteration
  - (2) selection
  - (3) sequence
  - (4) none of these
38. In a constellation diagram, a signal element type is represented as a
- (1) dot
  - (2) line
  - (3)  $x$  component
  - (4) none of these
39. National Internet Service Provider (ISP) networks are connected to one another by private switching stations are called
- (1) Network Access Points
  - (2) Peering Points
  - (3) National ISP
  - (4) None of these
40. Connecting devices are divided into
- (1) three different categories
  - (2) four different categories
  - (3) five different categories
  - (4) none of these

### INTERACTIVE SECTION

41. Consider the following program and what will be content of t?
- ```
#include<stdio.h>
int main()
{
FILE *fp;
```

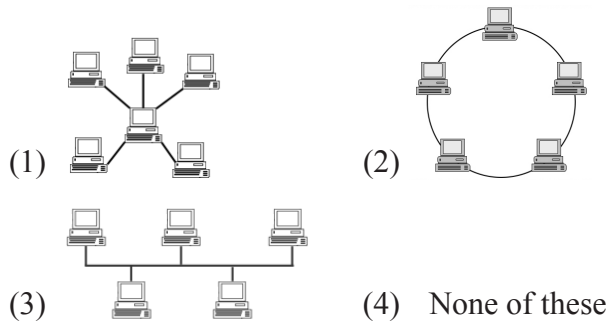
```
int t;
fp = fopen("DUMMY.C", "w");
t = fileno(fp);
printf("%d\n", t);
return 0;
```

- (1) Size of "DUMMY.C" file
- (2) The handle associated with "DUMMY.C" file
- (3) Garbage value
- (4) None of these

42. BSNL, MTNL, Satyam, Mantra Online are

- (1) examples of ISP in Delhi
- (2) examples of ISP in India
- (3) examples of ISP in World
- (4) none of these

43. In this topology, all networked devices connect to a single continuous cable.

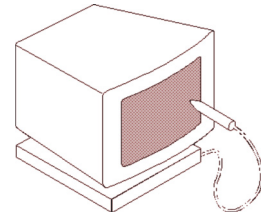


44. Which section in the figure shows cursor movement keys?



- (1) a
- (2) b
- (3) c
- (4) none of these

45. This is an input device that utilizes a light-sensitive detector to select objects on a display screen.



- (1) Light Pen
- (2) Bar code reader
- (3) Scanner
- (4) None of these

46. Your computer has gradually slowed down. What's the most likely cause?

- (1) Over heating
- (2) Your processor chip is just getting old
- (3) Adware/Spyware is infecting your PC
- (4) None of these

47. What is the value of 'number' after the following code fragment execution?

```
int number = 0;
int number 2 = 12;
while (number < number2)
{
    number = number + 1;
}
```

- (1) 5
- (2) 12
- (3) 21
- (4) None of these

48. MS Excel is a/an _____ .

- (1) word processor software
- (2) image processing software
- (3) spreadsheet package
- (4) none of these

49. UNIVAC was the first commercial computer designed in USA in 1951. What is the full form of UNIVAC?

- (1) Universal Array Computer
- (2) Universal Automatic Computer
- (3) United Array Computer
- (4) None of these

50. Which one of the following is an impact printer?



(4) None of these



END OF THE EXAM