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**INTERNATIONAL
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A1
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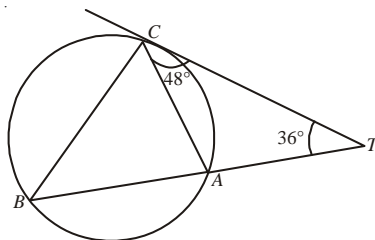
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IMPORTANT INFORMATION

- You are allowed additional 10 minutes to fill the required details in the **RESPONSE SHEET**.
- 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 coordinator teacher.
- 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.

SECTION-A : MENTAL ABILITY

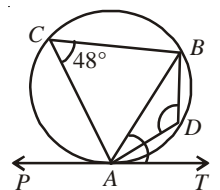
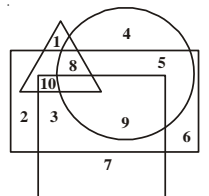
- If TOUR is written in a certain code as 1234, CLEAR as 56784 and SPARE as 90847 what will be the 5th digit for SCULPTURE in the same code?
(1) 3 (2) 6
(3) 0 (4) None of these
- Compare the knowledge of persons X, Y, Z, A, B and C in relation to each other :
1. X knows more than A.
2. Y knows as much as B.
3. Z knows less than C and B.
4. A knows more than Y
The least knowledgeable person amongst all is :
(1) Y (2) Z
(3) A (4) None of these
- A, B and C are three points on a circle. The tangent at C meets BA produced at T. Given that $\angle ATC = 36^\circ$ and that the $\angle ACT = 48^\circ$, calculate the angle subtended by AB at the centre of the circle.
(1) 96° (2) 60°
(3) 70° (4) None of these
- This question is based on the given figure in which Rectangle represent Males, Circle represents the urbans,



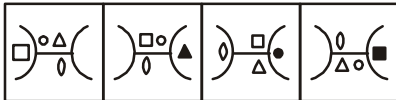
Square represents the educated and Triangle represents the Computer Scientists:

The number indicating uneducated urban males is

- (1) 4 (2) 5
(3) 7 (4) None of these
- Find the four angles of a cyclic quadrilateral ABCD in which $\angle A = (2x - 1)^\circ$, $\angle B = (y + 5)^\circ$, $\angle C = (2y + 15)^\circ$ and $\angle D = (4x - 7)^\circ$.
(1) $55^\circ, 65^\circ, 110^\circ, 130^\circ$
(2) $65^\circ, 55^\circ, 115^\circ, 125^\circ$
(3) $50^\circ, 70^\circ, 120^\circ, 120^\circ$
(4) None of these
- In the given figure, $\angle ACB = 48^\circ$, Find $\angle TAB$.
(1) 45° (2) 48°
(3) 37° (4) None of these
- If in the word 'DISTURBANCE', the first letter is interchanged with the last letter, the second letter is interchanged with the tenth letter and so on, which letter would come after the letter "T" in the newly formed word?
(1) I (2) N
(3) S (4) None of these
- Choose the correct alternative that will continue the same pattern.
225, 336, 447, (.....), 669, 7710
(1) 114 (2) 338
(3) 558 (4) None of these



9. Complete the sequence :



- (1) (2) (3) (4) None of these

10. In a certain code, 'il be pee' means 'roses are blue'; 'sik hee' means 'red flowers' and 'pee mit hee' means 'flowers are vegetables'.

- How is 'red' written in that code?
 (1) sik (2) hee
 (3) be (4) None of these

SECTION-B : GENERAL COMPUTER

11. Usenet is a collection of
 (1) Discussion groups (2) Users
 (3) Networks (4) None of these
12. Each command is followed by a meaning, match them.
- | Command | Meaning |
|---------|---|
| 1. STEP | A. To branch unconditionally out of the normal program sequence to a specified line number. |
| 2. SWAP | B. To terminate program execution and return to command level. |
| 3. STOP | C. To exchange the values of two variables. |
| 4. GOTO | D. To specify the counter increment for each loop in FOR-NEXT statement. |
- (1) 1B, 2C, 3D, 4A (2) 1A, 2B, 3C, 4D
 (3) 1D, 2C, 3B, 4A (4) None of these
13. A logic gate is an electronic circuit which:
 (1) Follows binary arithmetic
 (2) Can only be 0 to 1
 (3) Follows Boolean algebra
 (4) None of these
14. Which of the following is "False" for a database file?
 (1) Each record may contain several fields
 (2) Each record has a reference number
 (3) Length of each field is to be declared in advance
 (4) None of these
15. Which of the following needs Analog devices?
 (1) Measuring clothing material by a meter scale
 (2) Estimating the distance of stars from the Earth
 (3) Calculating the area of a rectangle by multiplying the lengths of two adjacent sides
 (4) None of these
16. A modem is a hardware device that interfaces
 (1) CPO and CRT
 (2) Telephone lines and computer equipment
 (3) Printer and main memory
 (4) None of these
17. A source program in computer is a program
 (1) Written in machine language
 (2) Understood directly by the computer
 (3) Written in high level language
 (4) None of these
18. Retaining data for future reference is called
 (1) Memorising (2) Sorting
 (3) Storing (4) None of these

19. Hyper text markup language is used for
 (1) Doing email (2) Creating website
 (3) Running CD (4) None of these
20. In telnet terminology, the computer you used is called
 (1) Remote (2) Local
 (3) Personal (4) None of these
21. Transmission of computerised data from one location to another is called
 (1) Data transfer (2) Data flow
 (3) Data communication (4) None of these
22. IP address contains..... sets of numbers separated by periods or dots.
 (1) 3 (2) 5
 (3) 4 (4) None of these
23. Which one of the following is a search engine?
 (1) Macromedia Flash (2) Google
 (3) Netscape (4) None of these
24. http://www.eduhealfoundation.org is an example of what?
 (1) an access code (2) a URL
 (3) a directory (4) None of these
25. Match the following
- | Column I | Column II |
|-------------|--------------------------------|
| A. Opera | i. Multiple network connection |
| B. Java 2 | ii. Mail packets |
| C. URL | iii. Web browser |
| D. Datagram | iv. development environment |
- (1) A-i, B-ii, C-iii, D-iv (2) A-iii, B-iv, C-i, D-ii
 (3) A-ii, B-i, C-iii, D-iv (4) None of these
26. Which one below indicates an email address?
 (1) info@edusys.in (2) info@edusys.com
 (3) both of these (4) None of these
27. Which of the following is true?
 (1) A text or graphic hyperlink hides a URL.
 (2) A URL indicates where the web page is stored on the Internet.
 (3) Both (1) and (2)
 (4) None of these
28. Which software below is an email client?
 (1) Windows 98 (2) Outlook
 (3) MS-Office (4) None of these
29. The first computer mouse is built by
 (1) William English (2) Douglas Engelbart
 (3) Charles Babbage (4) None of these
30. The program that controls the execution of application programs and acts as an interface between user of a computer and computer hardware is known as :
 (1) Operating system (2) Linker
 (3) Compiler (4) None of these

SECTION-C : C++ AND VB

31. What will be the output of the following program :
- ```
#include <iostream.h>
void main ()
{
 long number = 5572331, result = 0 ;
 do
 {
 result * = 10 ;
 int digit = number % 10 ;
 result + = digit ;
 number / = 10 ;
 }
 while (number) ;
 cout << "Output =" << result << endl ;
}
```

- (1) 1332557 (2) 7551332  
(3) 1332755 (4) None of these
32. In C++, the % refers to  
(1) percentages (2) modulus operator  
(3) division (4) None of these
33. A variable is given a value through  
(1) an assignment statement  
(2) the cout statement  
(3) the <iomanip.h> header file  
(4) None of these
34. In a group of nested loops, which loop is executed the most number of times?  
(1) the outermost loop  
(2) the innermost loop  
(3) all loops are executed the same number of times  
(4) None of these
35. The statement i++; is equivalent to  
(1) i = i + i; (2) i = i + 1;  
(3) i = i - 1; (4) None of these
36. Which looping process is best used when the number of iterations is known?  
(1) while (2) for  
(3) do-while (4) None of these
37. If there is more than one statement in the block of a for loop, which of the following must be placed at the beginning and the ending of the loop block?  
(1) parentheses ( ) (2) brackets [ ]  
(3) braces { } (4) None of these
38. In C++ a function contained within a class is called  
(1) a member function (2) an operator  
(3) a class function (4) None of these
39. The fields in a class of a c++ program are by default  
(1) protected (2) private  
(3) public (4) None of these
40. What will be the output of the following program?  
#include<iostream.h>  
void main ( )  
{ int v1 = 5, v2 = 10 ;  
for (int x = 1 ; x <= 2 ; x++)  
{ cout<<"+v1<< \t <<v2--<<endl ;  
cout<<"-v2<< \t <<v1++<<endl ;  
}  
}
- (1) 7 10 (2) 7 9  
9 6 9 5  
9 8 9 7  
7 8 7 7  
(3) 6 10 (4) None of these  
8 6  
8 8  
6 8

### SECTION-C : JAVA

31. int i = 1, j = 10;  
do {  
if (i++ > -j) {  
continue;  
}  
} while (i < 5);  
System.out.println("i = " + i + " and j = " + j);  
**What is the result?**  
(1) i = 6 and j = 5 (2) i = 5 and j = 5  
(3) i = 5 and j = 6 (4) None of these
32. int x = 3;  
int y = 1;  
if (x = y) {

```
System.out.println("x = " + x);
}
```

**What is the result?**

- (1) x = 1  
(2) Compilation fails.  
(3) The code runs with no output.  
(4) None of these
33. public class Test {  
public int aMethod() {  
static int i = 0;  
i++;  
return i;  
}  
public static void main (String args[] ) {  
Test test = new Test();  
test.aMethod();  
int j = test.aMethod();  
System.out.println(j);  
}  
}
- What is the result?**  
(1) Compilation fails. (2) 1  
(3) 2 (4) None of these
34. int i = 0;  
for (; i < 4; i += 2) {  
System.out.print(i + " ");  
}  
System.out.println(i);  
**What is the result?**  
(1) 0 2 4 5 (2) 0 2 4  
(3) 0 1 2 3 4 (4) None of these
35. ClassOne.java:  
package com.abe.pkg1;  
public class ClassOne {  
private char var = 'a';  
char getVar() { return var; }  
}  
ClassTest.java:  
package com.abe.pkg2;  
import com.abc.pkg1.ClassOne;  
public class ClassTest extends ClassOne {  
public static void main(String[] args) {  
char a = new ClassOne().getVar();  
char b = new ClassTest().getVar();  
}  
}
- What is the result?**  
(1) Compilation succeeds and no exceptions are thrown.  
(2) Compilation fails.  
(3) An exception is thrown at line 5 in ClassTest.java.  
(4) None of these
36. int i = 1, j = -1;  
switch (i) {  
case 0, 1: j = 1;  
case 2: j = 2;  
default: j = 0;  
}  
System.out.println("j=" + j);  
**What is the result?**  
(1) j = 0 (2) Compilation fails  
(3) j = 1 (4) None of these
37. Float f = new Float("12");  
switch (f) {  
case 12: System.out.println("Twelve");  
case 0: System.out.println("Zero");  
default: System.out.println("Default");  
}

**What is the result?**

- (1) Zero (2) Twelve  
 (3) Compilation fails. (4) None of these

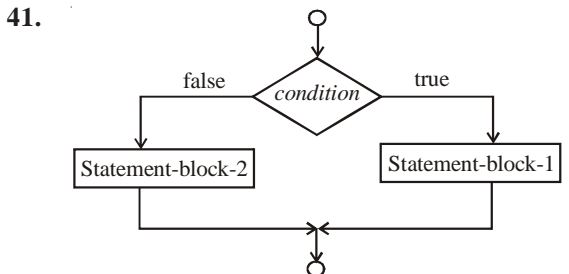
```
38. for (int i=0; i <3; i++) {
 switch(i) {
 case 0: break;
 case 1: System.out.print("one ");
 case 2: System.out.print("two ");
 case 3: System.out.print("three ");
 }
 System.out.println("done");
```

**What is the result?**

- (1) one two three two three done  
 (2) one two done  
 (3) one two three done  
 (4) None of these

39. Which statements is true?  
 (1) The default constructor initializes method variables.  
 (2) The default constructor has the same access as its class.  
 (3) The compiler creates a default constructor only when there are no other constructors for the class.  
 (4) None of these
40. Which statement is true?  
 (1) A try statement must have at least one corresponding catch block.  
 (2) Multiple catch statements can catch the same class of exception more than once.  
 (3) Except in case of VM shutdown, if a try block starts to execute, a corresponding finally block must always run to completion.  
 (4) None of these

**SECTION- D : EtG INTERACTIVE SECTION**

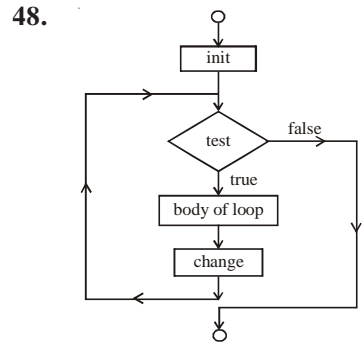


This flowchart represents \_\_\_\_\_  
 (1) for statement (2) if-else statement  
 (3) while statement (4) None of these

42. Which of the following retains the information it's storing when the power to the system is turned off?  
 (1) ROM (2) CPU  
 (3) RAM (4) None of these
43. What is BIOS an acronym for?  
 (1) bootstrap initial operating system  
 (2) basic input output startup  
 (3) basic input output system  
 (4) None of these
44. A certain computer hardware components does not process the data itself but acts as a central nervous system for other data manipulating components. What is it called?  
 (1) Control unit (2) RAM  
 (3) ALU (4) None of these
45. Which of following statement is not correct about IP?  
 (1) IP is hardware dependent

- (2) The IP address format is often referred to as dotted quad notation.  
 (3) IP address are 32 bit numbers  
 (4) None of these

46. A logic gate is an electronic circuit which:  
 (1) Allows electron flow only in one direction  
 (2) Makes logic decisions  
 (3) Works on binary algebra  
 (4) None of these
47. What is encryption?  
 (1) Invisibly access Internet  
 (2) Scrambling of message for security  
 (3) Access e-mail without downloading  
 (4) None of these



What is the correct algorithm for this flowchart?

- (1) while ( exp )  
 {  
 .....  
 statement-block  
 .....  
 }  
 (2) switch ( expression )  
 {  
 :  
 case val-4 :  
 case val-5 :  
 case val-6 : statement-block  
 break;  
 :  
 }  
 (3) for ( init ; test ; change )  
 {  
 .....  
 statement-block  
 .....  
 }  
 (4) None of these

49. The Input and Output devices are located away from the central computer facility in which particular type of processing.  
 (1) Batch processing  
 (2) Time sharing  
 (3) Interactive mode  
 (4) None of these
50. In Flowchart of a computer program, symbols are used for indicating certain steps. Can you tell for what purpose the diamond shaped symbol is used?  
 (1) Input /output  
 (2) Decision making  
 (3) Processing  
 (4) None of these

