**APTITUDE**

**Easy Level (1–15)**

1. 25 percent of 200 is  
   A) 25 B) 50 C) 100 D) 75  
   Answer: 50
2. Simplify 6 × 7 + 8  
   A) 50 B) 56 C) 42 D) 60  
   Answer: 50
3. If 10 pencils cost 40 rupees, cost of one pencil is  
   A) 2 B) 3 C) 4 D) 5  
   Answer: 4
4. Average of 5, 10, 15 is  
   A) 5 B) 10 C) 15 D) 20  
   Answer: 10
5. A car travels 60 km in 2 hours. Speed is  
   A) 20 B) 30 C) 40 D) 50  
   Answer: 30
6. Ratio of 8 to 4 is  
   A) 1:2 B) 2:1 C) 3:1 D) 1:3  
   Answer: 2:1
7. Simple interest on 1000 rupees at 10 percent for 2 years is  
   A) 100 B) 150 C) 200 D) 250  
   Answer: 200
8. If x = 5, then 2x + 3 =  
   A) 10 B) 11 C) 12 D) 13  
   Answer: 13
9. Odd number in 2, 4, 6, 9, 10 is  
   A) 2 B) 4 C) 9 D) 10  
   Answer: 9
10. A bottle costs 30 and a cap 10. Cost of 3 sets is  
    A) 90 B) 100 C) 110 D) 120  
    Answer: 120
11. If 3 men do work in 6 days, 6 men take  
    A) 2 B) 3 C) 4 D) 6  
    Answer: 3
12. HCF of 12 and 18 is  
    A) 2 B) 3 C) 4 D) 6  
    Answer: 6
13. If A = B and B = C then A =  
    A) B B) C C) A D) All equal  
    Answer: All equal
14. Successor of 99 is  
    A) 98 B) 99 C) 100 D) 101  
    Answer: 100
15. Square root of 81 is  
    A) 7 B) 8 C) 9 D) 10  
    Answer: 9

**Moderate Level (16–35)**

1. A train travels 120 km in 3 hours. Speed is  
   A) 30 B) 40 C) 50 D) 60  
   Answer: 40
2. Compound interest on 1000 at 10 percent for 2 years is  
   A) 200 B) 210 C) 220 D) 230  
   Answer: 210
3. If 12 men complete work in 15 days, 6 men will take  
   A) 25 B) 30 C) 35 D) 40  
   Answer: 30
4. Average of 20 numbers is 50. Sum is  
   A) 800 B) 900 C) 1000 D) 1100  
   Answer: 1000
5. If a:b = 2:3 and b:c = 4:5, then a:c =  
   A) 8:15 B) 4:9 C) 2:5 D) 5:8  
   Answer: 8:15
6. Selling price 300, cost price 250. Profit percent  
   A) 10 B) 15 C) 20 D) 25  
   Answer: 20
7. A can do a work in 10 days, B in 15 days. Together they take  
   A) 5 B) 6 C) 7 D) 8  
   Answer: 6
8. Probability of getting head in coin toss  
   A) 1/4 B) 1/3 C) 1/2 D) 1  
   Answer: 1/2
9. Boat upstream 10 km/h, downstream 15 km/h. Current speed  
   A) 2 B) 2.5 C) 3 D) 4  
   Answer: 2.5
10. Area of rectangle is 60, length 10. Width  
    A) 5 B) 6 C) 7 D) 8  
    Answer: 6
11. Money doubles in 8 years. Rate percent  
    A) 10 B) 12.5 C) 15 D) 20  
    Answer: 12.5
12. 5x = 20 then x =  
    A) 2 B) 3 C) 4 D) 5  
    Answer: 4
13. A man walks 5 km/h for 2 hours. Distance  
    A) 5 B) 10 C) 15 D) 20  
    Answer: 10
14. Radius 7 cm. Area of circle (pi = 22/7)  
    A) 44 B) 77 C) 154 D) 220  
    Answer: 154
15. Number increased by 20 percent then decreased by 10 percent. Net change  
    A) +7 B) +8 C) +9 D) +10  
    Answer: +8
16. Two pipes fill a tank in 12 and 15 minutes. Together  
    A) 6 B) 6.4 C) 7 D) 8  
    Answer: 6.4
17. Selling price 4 times cost price. Profit percent  
    A) 100 B) 200 C) 300 D) 400  
    Answer: 300
18. Series 2, 4, 8, 16, ?  
    A) 18 B) 20 C) 32 D) 36  
    Answer: 32
19. (10 + 2)² – (10 – 2)² =  
    A) 32 B) 64 C) 96 D) 128  
    Answer: 96
20. Selling price 540, loss 10 percent. Cost price  
    A) 500 B) 550 C) 600 D) 650  
    Answer: 600

**Hard Level (36–50)**

1. If x + 1/x = 2, then x² + 1/x² =  
   A) 2 B) 3 C) 4 D) 5  
   Answer: 2
2. 2x + 3y = 12, x – y = 1. Value of x  
   A) 2 B) 3 C) 4 D) 5  
   Answer: 4
3. 10000 at 10 percent compound interest for 2 years. Amount  
   A) 11000 B) 12000 C) 12100 D) 12500  
   Answer: 12100
4. A can finish in 10 days, B in 15 days. B helps 5 days. Total days  
   A) 7 B) 8 C) 9 D) 10  
   Answer: 8
5. Triangle sides 3, 4, 5. Area  
   A) 6 B) 7 C) 8 D) 9  
   Answer: 6
6. Average of first 10 natural numbers  
   A) 4 B) 5 C) 5.5 D) 6  
   Answer: 5.5
7. Mixture milk and water 4:1. Add 5 litres water, ratio becomes 3:2. Milk  
   A) 10 B) 15 C) 20 D) 25  
   Answer: 15
8. (81)^(3/4)  
   A) 9 B) 27 C) 81 D) 243  
   Answer: 27
9. sinA = 3/5 then cosA =  
   A) 4/5 B) 3/5 C) 5/4 D) 1/5  
   Answer: 4/5
10. Difference between simple and compound interest on 5000 at 10 percent for 2 years  
    A) 25 B) 50 C) 75 D) 100  
    Answer: 25
11. log10x = 2 then x =  
    A) 10 B) 20 C) 100 D) 1000  
    Answer: 100
12. Two trains 150 m and 100 m cross each other in 12 s. Opposite direction. Relative speed  
    A) 12.5 B) 15 C) 20.8 D) 25  
    Answer: 20.8
13. x² – 5x + 6 = 0. x =  
    A) 1 or 2 B) 2 or 3 C) 3 or 4 D) 4 or 5  
    Answer: 2 or 3
14. Man rows 6 km/h in still water. Current 2 km/h. Upstream 6 km time  
    A) 1 B) 1.5 C) 2 D) 2.5  
    Answer: 2
15. Amount 8000 in 2 years at 10 percent compound interest. Principal  
    A) 6500 B) 6600 C) 6611 D) 6700  
    Answer: 6611

**REASONING**

**Easy Level (1–15)**

1. Next number in the series 2, 4, 6, 8, ?  
   A) 9 B) 10 C) 11 D) 12  
   Answer: 10
2. If TOM = GNL, then CAT =  
   A) XZG B) ZYG C) XZG D) XZH  
   Answer: XZG
3. Which word is odd one out? Apple, Mango, Carrot, Banana  
   Answer: Carrot
4. Find the missing letter in the series A, C, F, J, O, ?  
   A) Q B) T C) U D) V  
   Answer: U
5. Ravi is taller than Manoj but shorter than Kiran. Who is the shortest?  
   A) Ravi B) Manoj C) Kiran D) None  
   Answer: Manoj
6. The angle between clock hands at 3:15 is  
   A) 7.5° B) 15° C) 22.5° D) 30°  
   Answer: 7.5°
7. If 5 → 25, 6 → 36, then 8 →  
   A) 48 B) 56 C) 64 D) 72  
   Answer: 64
8. Choose the odd pair: (1–3), (2–4), (3–6), (4–8), (5–11)  
   Answer: (5–11)
9. Opposite direction of South-West is  
   A) North-East B) East C) West D) South-East  
   Answer: North-East
10. Which word cannot be made from COMPUTER? TERM, CORE, PURE, TONE  
    Answer: TONE
11. If P = 16, Q = 17, then S =  
    A) 18 B) 19 C) 20 D) 21  
    Answer: 19
12. A is mother of B. C is father of A. Relation of C to B  
    A) Father B) Grandfather C) Uncle D) Brother  
    Answer: Grandfather
13. Mirror image of clock showing 2:45 will show  
    A) 9:15 B) 9:45 C) 10:15 D) 10:45  
    Answer: 9:15
14. Arrange in logical order: Plant, Seed, Tree, Fruit  
    Answer: Seed, Plant, Tree, Fruit
15. If 2 = 6, 3 = 12, 4 = 20, then 5 =  
    A) 25 B) 30 C) 35 D) 40  
    Answer: 30

**Moderate Level (16–35)**

1. Pointing to a girl, Ravi said “She is the daughter of my grandfather’s only son.” Who is the girl to Ravi?  
   A) Sister B) Cousin C) Mother D) Aunt  
   Answer: Sister
2. If in a certain code “DOG” = 4157, then “CAT” =  
   A) 31420 B) 31620 C) 31425 D) 31525  
   Answer: 31420
3. Five friends P, Q, R, S, T stand in a line. R is not next to S, S is left of P. Who is in the middle?  
   A) P B) Q C) R D) S  
   Answer: Q
4. If A = 1, B = 2, find value of “ACE”  
   A) 7 B) 8 C) 9 D) 10  
   Answer: 9
5. Which is different? Circle, Triangle, Rectangle, Sphere  
   Answer: Sphere
6. If Monday = 1, then Saturday =  
   A) 5 B) 6 C) 7 D) 8  
   Answer: 6
7. Odd number out 64, 125, 216, 343, 512, 100  
   Answer: 100
8. If A:B = 2:3 and B:C = 4:5 then A:C =  
   A) 8:15 B) 4:9 C) 2:5 D) 6:10  
   Answer: 8:15
9. Pattern PEN → OZM, then CAT →  
   A) BZS B) DYT C) AZS D) CZT  
   Answer: BZS
10. If KITE = 39, then BIRD =  
    A) 28 B) 29 C) 30 D) 31  
    Answer: 30
11. Rahul facing north turns right, then left, then right again. Now he faces  
    A) East B) South C) West D) North  
    Answer: South
12. Find the next number 3, 6, 18, 72, ?  
    A) 144 B) 288 C) 360 D) 400  
    Answer: 360
13. All pens are books. No book is pencil. Some pens are not pencils?  
    A) True B) False C) Cannot say D) None  
    Answer: True
14. If 6 men equal 4 women in work, ratio men:women is  
    A) 2:3 B) 3:2 C) 4:3 D) 3:4  
    Answer: 2:3
15. Bird : Nest :: Bee :  
    A) Hive B) Hole C) Tree D) Field  
    Answer: Hive
16. Series 2, 3, 5, 8, 12, 17, ?  
    A) 21 B) 22 C) 23 D) 24  
    Answer: 23
17. Complete pattern A1, C3, E5, G7, ?  
    A) H8 B) I9 C) J10 D) K11  
    Answer: I9
18. Statements: Some cats are dogs. Some dogs are rats.  
    Conclusions: Some cats are rats.  
    A) True B) False C) Cannot be concluded D) None  
    Answer: Cannot be concluded
19. Rearrange TAECR to form a word  
    A) REACT B) TRACE C) CARET D) CREATE  
    Answer: REACT
20. If 5 × 6 = 30 and 6 × 7 = 42 then 8 × 9 =  
    A) 64 B) 70 C) 72 D) 80  
    Answer: 72

**Hard Level (36–50)**

1. Statements: All flowers are leaves; some leaves are roots. Some flowers are roots?  
   A) True B) False C) Cannot be concluded D) None  
   Answer: Cannot be concluded
2. Arrange logically: Doctor, Patient, Treatment, Disease, Diagnosis  
   Answer: Disease, Patient, Diagnosis, Doctor, Treatment
3. Find missing number 7, 14, 28, 56, ?, 224  
   A) 96 B) 100 C) 112 D) 120  
   Answer: 112
4. If FISH = GJTJ, then GOAT =  
   A) HPBU B) HQBV C) IPBW D) HPBW  
   Answer: HPBU
5. If A + B means A is father of B, A – B means A is sister of B, A × B means A is brother of B,  
   then P + Q – R means  
   A) P is father of R B) P is brother of R C) P is uncle of R D) None  
   Answer: P is father of R
6. A sits 3rd to left of B, C is 2nd right of A, D is immediate left of B. Who is between A and B?  
   A) C B) D C) E D) None  
   Answer: D
7. Series 3, 9, 27, 81, 243, ?  
   A) 486 B) 729 C) 810 D) 900  
   Answer: 729
8. Five people in a room shake hands once each. How many handshakes?  
   A) 5 B) 8 C) 10 D) 12  
   Answer: 10
9. If A = 1 and Z = 26, value of CODE =  
   A) 26 B) 27 C) 28 D) 30  
   Answer: 27
10. If 5 = 12, 6 = 20, 7 = 30, then 8 =  
    A) 40 B) 42 C) 44 D) 45  
    Answer: 42
11. If it rains, match is cancelled. It did not rain. What can be said about match?  
    A) Played B) Cancelled C) May or may not be cancelled D) None  
    Answer: May or may not be cancelled
12. Six children share 10 toffees so each gets at least 1. Number of ways  
    A) 4 B) 5 C) 6 D) 7  
    Answer: 5
13. Facing north, turn right, then left, then left. Now facing  
    A) West B) South C) East D) North  
    Answer: West
14. All A are B, No B is C, then No A is C  
    A) True B) False C) Cannot say D) None  
    Answer: True
15. Odd pair: 2:8, 3:27, 4:64, 5:100  
    A) 2:8 B) 3:27 C) 4:64 D) 5:100  
    Answer: 5:100

**BASIC CODING (C, JAVA, PYTHON)**

**Easy Level (1–15)**

1. In C, which symbol is used to end a statement?  
   A) . B) , C) ; D) :  
   Answer: ;
2. In Python, which function prints output?  
   A) output() B) echo() C) print() D) display()  
   Answer: print()
3. In Java, which keyword is used to define a class?  
   A) def B) class C) structure D) define  
   Answer: class
4. Which C data type is used to store decimal numbers?  
   A) int B) float C) char D) double  
   Answer: float
5. Python is a \_\_\_\_\_\_ typed language.  
   A) Dynamically B) Statically C) Manually D) Structurally  
   Answer: Dynamically
6. What will be the output of printf("%d", 5 + 3 \* 2); in C?  
   A) 10 B) 11 C) 12 D) 13  
   Answer: 11
7. In Java, which method is the entry point of a program?  
   A) start() B) begin() C) main() D) run()  
   Answer: main()
8. Which symbol is used for comments in Python?  
   A) // B) /\* C) # D) --  
   Answer: #
9. What will 5 // 2 output in Python?  
   A) 2 B) 2.5 C) 3 D) 3.5  
   Answer: 2
10. Which function reads an integer in C?  
    A) read("%d", x); B) scan("%d", x); C) scanf("%d", &x); D) input(x);  
    Answer: scanf("%d", &x);
11. In Java, the result of integer division 9 / 2 is  
    A) 4 B) 4.5 C) 5 D) 6  
    Answer: 4
12. In Python, len("code") returns  
    A) 3 B) 4 C) 5 D) 6  
    Answer: 4
13. In C, which keyword is used to exit a loop?  
    A) continue B) return C) break D) stop  
    Answer: break
14. In Java, the operator "==" checks  
    A) Assignment B) Comparison C) Reference D) None  
    Answer: Comparison
15. In Python, list indexing starts from  
    A) 0 B) 1 C) -1 D) 2  
    Answer: 0

**Moderate Level (16–35)**

1. Output of

int a = 5;

printf("%d", ++a);

A) 4 B) 5 C) 6 D) 7  
Answer: 6

1. Java code

int x = 5;

System.out.println(x++);

A) 4 B) 5 C) 6 D) 7  
Answer: 5

1. Output of

for i in range(3):

print(i)

A) 1 2 3 B) 0 1 2 C) 0 1 2 3 D) 1 2  
Answer: 0 1 2

1. Error in

for(i=0; i<5; i++);

printf("%d", i);

A) Extra semicolon B) Wrong variable C) Wrong syntax D) Missing bracket  
Answer: Extra semicolon

1. In Java, which keyword is used for inheritance?  
   A) implements B) inherits C) extends D) super  
   Answer: extends
2. Output of def add(a,b): return a+b then add(2,3)  
   A) 2 B) 3 C) 4 D) 5  
   Answer: 5
3. In C, a string always ends with  
   A) ' ' B) '\n' C) '\0' D) '#'  
   Answer: '\0'
4. In Java, which data type stores a single character?  
   A) string B) char C) character D) text  
   Answer: char
5. In Python, which loop continues until condition is false?  
   A) repeat B) while C) for D) do  
   Answer: while
6. In C, size of int usually is  
   A) 2 bytes B) 4 bytes C) 6 bytes D) 8 bytes  
   Answer: 4 bytes
7. Output of Java code

int a=10, b=20;

System.out.println(a>b);

A) true B) false C) 1 D) 0  
Answer: false

1. Output of Python code

a=[1,2,3]

a.append(4)

print(a)

A) [1,2,3] B) [1,2,3,4] C) [4,3,2,1] D) [2,3,4]  
Answer: [1,2,3,4]

1. In C, if for(i=0; i<5; i++), last value of i is  
   A) 4 B) 5 C) 6 D) 7  
   Answer: 5
2. In Java, which keyword makes a variable constant?  
   A) const B) static C) final D) constant  
   Answer: final
3. In Python, exponentiation operator is  
   A) ^ B) \*\* C) \* D) ^^  
   Answer: \*\*
4. In C, output of

int x=5;

x+=3;

printf("%d",x);

A) 5 B) 7 C) 8 D) 9  
Answer: 8

1. In Java, which loop executes at least once?  
   A) for B) while C) do-while D) until  
   Answer: do-while
2. In Python, bool(0) returns  
   A) True B) False C) Error D) None  
   Answer: False
3. In C, why do we write return 0 in main?  
   A) End of loop B) End of program C) Successful execution D) Error  
   Answer: Successful execution
4. In Java, array index starts from  
   A) 0 B) 1 C) -1 D) 2  
   Answer: 0

**Hard Level (36–50)**

1. What is the result of

int a=5;

printf("%d",a++ + ++a);

A) 10 B) 11 C) 12 D) Undefined behavior  
Answer: Undefined behavior

1. Which OOP concept is achieved by method overriding?  
   A) Inheritance B) Encapsulation C) Polymorphism D) Abstraction  
   Answer: Polymorphism
2. Python code

x=[]

def f():

x.append(1)

f()

print(x)

A) [ ] B) [1] C) [1,1] D) Error  
Answer: [1]

1. In C, recursive functions call  
   A) Another function B) Themselves C) Main function D) None  
   Answer: Themselves
2. In Java, which access specifier restricts access to the same class?  
   A) public B) private C) protected D) static  
   Answer: private
3. Lambda functions in Python are  
   A) Named B) Anonymous C) Recursive D) Loops  
   Answer: Anonymous
4. A pointer in C holds  
   A) Value B) Address C) Character D) Name  
   Answer: Address
5. In Java, abstract classes can have  
   A) Only abstract methods B) Only concrete methods C) Both D) None  
   Answer: Both
6. Python code

def f(x=[]):

x.append(1)

return x

print(f(), f())

A) [1] [1] B) [1] [1,1] C) [1,1] [1,1] D) Error  
Answer: [1] [1,1]

1. In C, file opening mode for writing only is  
   A) r B) w C) a D) rw  
   Answer: w
2. In Java, exception handling uses which keyword?  
   A) try-catch B) throw-catch C) error-handling D) guard  
   Answer: try-catch
3. Python module for random numbers is  
   A) randint B) random C) randomize D) rnd  
   Answer: random
4. In C, dynamic memory allocation function is  
   A) alloc() B) malloc() C) create() D) calloc()  
   Answer: malloc()
5. In Java, interface is used for  
   A) Abstraction B) Overloading C) Polymorphism D) None  
   Answer: Abstraction
6. Python code

a=(1,2,3)

a[0]=5

A) [5,2,3] B) (5,2,3) C) Error D) None  
Answer: Error