### **NUMERICAL ABILITY**

### Direction (1-5): What value should come in place of the question mark (?) in the following questions?

- **1).** 18, 8, 6, 9, 32, ?.
- a) 256
- b) 284
- c) 251
- d) 249
- e) 320
- **2).** 1, 244, 163, 190, 181, ?.
- a) 188
- b) 198
- c) 178
- d) 184
- e) 191
- **3**). 250, ?, 190, 167, 148, 131.
- a) 219
- b) 222
- c) 221
- d) 218
- e) 215
- **4).** 36, 18, 6, 3, 1, ?.
- a) 0.4
- b) 0.25
- c) 0.2

- d) 0.33
- e) 0.5
- **5).** 18, 29, 42, 53, ?.
- a) 70
- b) 66
- c) 72
- d) 69
- e) 80

### Direction (6-15): What value should come in place of the question mark (?) in the following questions?

- **6).**  $[(36 \times 75) \div 15 2520 \div 120] = 3 \times ?$
- a) 72
- b) 53
- c) 66
- d) 48
- e) None of these
- 7).  $172 \times (853 340) \div 19 = ? 720$
- a) 4576
- b) 6128
- c) 5364
- d) 3780
- e) None of these
- 8).  $(35 \% \text{ of } 75000) \div ? = (125 \% \text{ of } 300) \times 2$
- a) 60
- b) 45
- c) 35
- d) 20
- e) None of these
- **9).** (4/15) of 393 + (7/12) of  $468 = ? \times 4$
- a) 107.25
- b) 94.45
- c) 82.65
- d) 78.35
- e) None of these
- **10).** 42 % of 1250 + 15 % of ? = 1113
- a) 3920
- b) 4160

- c) 3350
- d) 3780
- e) None of these
- **11).**  $\sqrt{8281} \div 7 + 63 = ? 25785 \div 9$
- a) 2941
- b) 2785
- c) 2513
- d) 2147
- e) None of these
- **12).** 28 % of 3540 + 267 % of 4500 + 24 % of 5060 =?
- a) 14220.6
- b) 13450.8
- c) 11780.4
- d) 15670.5
- e) None of these

**13).** 
$$(6390 \div 15) + (7182 \div 19) + (10224 \div 8) = ? - 24 \% \text{ of } 750$$

- a) 2534
- b) 2262
- c) 2876
- d) 3148
- e) None of these

**14).** 
$$(4/7)$$
 of  $? - (5/7)$  of  $(91/40)$  of  $3656 = 26\%$  of  $1850$ 

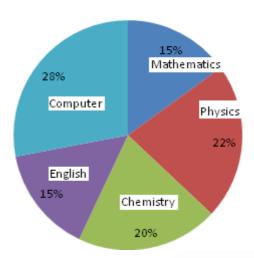
- a) 17852. 6
- b) 11238.5
- c) 15724. 8
- d) 13421.7
- e) None of these

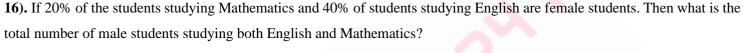
**15).** 
$$(1256 \div 4) \times (138 \div 3) = 810 \div 3 + ?$$

- a) 27895
- b) 35621
- c) 22782
- d) 14174
- e) None of these

Directions (16–20): Given below is the pie chart which shows the percentage distribution of the students studying in different subjects.

# Total number of students: 300





- a) 90
- b) 67
- c) 63
- d) 72
- e) 68

17). What is the average number of students studying Chemistry, Computer and Physics subjects?

- a) 70
- b) 72
- c) 68
- d) 66
- e) 71

**18).** If 75% of students studying Chemistry are appeared in the exam and 80% of students were passed the exam out of the students appeared. Then how many students failed in the exam?

- a) 10
- b) 9
- c) 11
- d) 8
- e) 13

**19).** If the ratio of males and females in the Computer studying students is 4:3. Then what is the difference between the male and female in Computer students?

- a) 12
- b) 28
- c) 7

- d) 14
- e) 13
- **20).** What is the difference between the number of students studying Physics and English together and the number of students studying Chemistry and Computer together?
- a) 34
- b) 54
- c) 35
- d) 32
- e) 33

Directions (21-25): In each questions, two equations numbered I and II have been given. You have to solve both the equations and mark the appropriate option.

(a) if x > y (b) if  $x \ge y$  (c) if x < y (d) if  $x \le y$  (e) if x = y or no relationship can be established.

21).

I. 
$$x^2 + 6x + 9 = 0$$

II. 
$$y^2 - y - 20 = 0$$

22).

I. 
$$x^2 - 10x + 24 = 0$$

II. 
$$2y^2 - 3y - 35 = 0$$

23).

I. 
$$X^2 - 7X = -12$$

II. 
$$Y = \sqrt{16}$$

24).

I. 
$$4x^2 - 9x - 34 = 0$$

II. 
$$y^2 + 20y + 51 = 0$$

25).

I. 
$$x^2 + 361 = 442$$

II. 
$$y + \sqrt{289} = \sqrt{676}$$

Directions (26–30): Each question contains Quantity I and Quantity II. Read the contents clearly and answer your questions accordingly.

- a) Quantity I > Quantity II
- b) Quantity  $I \ge Quantity II$
- c) Quantity II > Quantity I
- d) Quantity II ≥ Quantity I
- e) Quantity I = Quantity II or Relation cannot be established
- 26). Quantity I: The SI on a certain sum of money for 3 years at 5 % per annum is Rs. 4800. Then the principle is?

Quantity II: The CI on a certain sum of money for 2 years at 6 % per annum is Rs. 3708. Then the principle is?

27). **Quantity I:** 3 years ago, the ratio of age of A and B is 3: 4. After 2 years, the sum of their ages is 45. Then find the present age of A?

**Quantity II:** 5 years ago, the ratio of age of P and Q is 3: 4. P's age after 6 years is equal to the present age of Q. Then find the present age of P?

28). **Quantity I:** If the length of a rectangle is increased by 20% while the breadth of the rectangle is decreased by 10% then find percentage change in area of the rectangle?

**Quantity II:** If the breadth of a triangle is increased by 30 % while the height of a triangle is decreased by 20 %, then find the percentage change in area of the triangle?

29). **Quantity I:** Raji can swim at 6 km/hr in still water. The river flows at 3 km/hr and it takes 8 hours more upstream than downstream for the same distance. How far is the place?

**Quantity II:** A man can row 25 km/hr in still water and the river is running at 15 km/hr. If the man takes 2 hr to row to a place and back, how far is the place?

30). **Quantity I:** There are three numbers in the ratio 5: 6: 10. The sum of the largest and the smallest numbers is 126 more than the other number. Find the largest number?

**Quantity II:** 12 % of first number is equal to 25 % of second number. The difference of these two numbers is 78. Then find the largest number?

- 31). Four years ago, the ratio between the age of Ram and Shyam was 4:9 respectively. Sita is 5 years older than Ram. Sita is 5 years younger than Shyam. What is Sita's present age?
- a) 17 years
- b) 20 years
- c) 23 years
- d) 24 years
- e) 25 years
- 32). Rakesh Gangwal and Rahul Bhatia invested in a business in the ratio 10:13. What is the total profit, if Rahul Bhatia's profit share is Rs.832 and 8% of the total profit goes to charity?
- a) Rs.1400
- b) Rs.1500
- c) Rs.1600
- d) Rs.1700
- e) Rs.1800
- 33). The length of train A is 320 metres and that of train B is 415 metres. Train A travelling at a speed of 55 kmphcrosses train B travelling in opposite direction in 21 seconds. What is the speed of train B?
- a) 62 kmph

- b) 53 kmph
- c) 80 kmph
- d) 71 kmph
- e) 75 kmph
- 34). A man rows to a place 40 km distance and come back in 9 hours. He finds that he can row 5 km with the stream in the same time as 4 km against the stream. The rate of the stream is?
- a) 1 km/hr
- b) 1.5 km/hr
- c) 2 km/hr
- d) 2.5 km/hr
- e) None of these
- 35). The area of rectangle is 1.5 times of the area of the square. Length of rectangle is 3 times its breadth. If side of square is 15m. What is the perimeter of the rectangle?
- a) 31.8 m
- b) 42.4 m
- c) 75.6 m
- d) 84.8 m
- e) 78.8 m

#### **Answer Kev:**

1.c	2.d	3.a	4.e	5.b	6.b	7.c	8.c	9.b	10.a
11.a	12.a	13.b	14.b	15.d	16.c	17.a	18.b	19.d	20.e
21.e	22.e	23.d	24.a	25.d	26.a	27.c	28.a	29.a	30.c
31.a	32.c	33.d	34.a	35.d					