

JUNIOR ENGINEERING

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1. $287 \times 287 + 269 \times 269 - 2 \times 287 \times 269 = ?$

- a) 534 b) 446 c) 354 d) 324

Ans d

2. $(12)^3 \times 6^4 \div 432 = ?$

- a) 5184 b) 5060 c) 5148 d) 5084

Ans: a

3. The smallest 3-digit prime number is

- a) 103 b) 107 c) 109 d) none of these

Ans: d

4. The sum of first five prime number is

- a) 11 b) 18 c) 26 d) 28

Ans: d

5. How many of the following number are divisible by 132?

264, 396, 462, 792, 968, 2178, 5184, 6336

- a) 4 b) 5 c) 6 d) 7

Ans: a

6. Find the least number which when divided by 20, 25, 35, and 40 leaves remainder 14, 19, 29, and 34 respectively

- a) 1294 b) 1394 c) 1494 d) 1594

Ans: b

7. The sum of two numbers is 216 and their HCF is 27. The number is:

- a) 27, 189 b) 81, 189 c) 108, 108 d) 154, 162

Ans: a

8. The least number which is perfect square and is divisible by each of the numbers 16, 20, and 24, is:

- a) 1600 b) 3600 c) 6400 d) 14400

Ans: b

9. $\left(\frac{10.3 \times 10.3 \times 10.3 + 1}{10.3 \times 10.3 - 10.3 + 1} \right)$ is equal to:

- a) 9.3 b) 10.3 c) 11.3 d) 12.3

Ans c

10. If $4x + 5y = 83$ and $\frac{3x}{2y} = \frac{21}{22}$, then $y-x = ?$

- a) 3 b) 4 c) 7 d) 11

Ans: b

11. Evaluate: $\sqrt{41 - \sqrt{21 + \sqrt{19 - \sqrt{9}}}}$

- a) 3 b) 5 c) 6 d) 6.4

Ans: c

12. If $\sqrt{6} = 2.449$, then the value of $\frac{3\sqrt{2}}{2\sqrt{3}}$ is:

- 0.6122 0.8163 1.223 1.2245

Ans: d

13. If 8% of $x = 4\%$ of y , then 20% of x is:

- 10% of y 16% of y 80% of y
none of these

Ans: a

14. A man bought toffees at 3 for a rupee. How many for a rupee must be sell to gain 50%?

- a) 1 b) 2 c) 4 d) 5

Ans: b

15. Find the single discount equivalent to a series discount of 20%, 10% and 5%

- a) 30% b) 31% c) 31.6% d) 32.6%

Ans: c

Directions: From among the given alternatives select the one in which the set of numbers is most like the set of numbers given in the question

16. **Given set :** (3, 7, 15)

- a) 2, 6, 10 b) 4, 8, 18
c) 5, 9, 17 d) 7, 12, 19

ANS: c)

17. **Given set :** 63, 49, 35

- a) 81, 63, 45 b) 64, 40, 28
c) 72, 40, 24 d) 72, 48, 24

ANS: a)

Directions: (Q-18 to 19) In each of the following questions, select the related number from the given alternatives.

18. $456 : 15 :: 789 : ?$

- a) 15 b) 16
c) 18 d) 24

ANS: d)

19. $0.16 : 0.0016 :: 1.02 : ?$

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- a) 10.20 b) 0.102
c) 0.0102 d) 1.020

ANS: c)

Directions: (Q.20 to 21) In each of the following questions, select the related letter from the given alternatives.

20. A D H M : Z W S N :: CFJO : ?

- a) YVRM b) WTPK
c) XWTP d) ZXVT

ANS: a)

21. BOQD: ERTG :: ANPC : ?

- a) DQSF b) FSHU
c) SHFU d) DSQF

ANS: a)

Directions: Select the related letter/ number from the given alternatives.

22. M O : 13 11 :: H J : ?

- a) 19 17 b) 18 16
c) 8 10 d) 16 18

ANS: b)

23. 987: IHG :: 654 : ?

- a) FDE b) FED
c) EFD d) DEF

ANS: b)

24. A is B's daughter. B is C's mother. D is C's brother. How is D related to A?

- a) Father b) Grandfather
c) Brother d) Son

ANS: c)

Directions: (Q25 to 26) In the following question you have to identify the correct response from the given premises stated according to following symbols:

25. If '+' means '-', '-' means 'x', 'x' means '÷' and '÷' means '+' then
 $2 \div 6 \times 6 \div 2 = ?$

- a) 1 b) 0
c) 10 d) 5

ANS: d)

26. If '-' stands for division '+' stands for subtraction, '÷' stands for multiplication, 'x' stands for addition, then which one of the following equations is correct?

- a) $70 - 2 + 4 \div 5 \times 6 = 44$
b) $70 - 2 + 4 \div 5 \times 6 = 21$
c) $70 - 2 + 4 \div 5 \times 6 = 341$
d) $70 - 2 + 4 \div 5 \times 6 = 36$

ANS: b)

27. If 'a' denotes '÷', 'b' denotes '+', 'c' denotes '-', 'd' denotes 'x', then

$24a6d4b9c8 = ?$

- a) 2 b) 17
c) 34 d) 19

ANS: b)

28. Mohiniattam is the folk dance of

- a. Tamil Naidu
b. Andhra Pradesh
c. Kerala
d. Karnataka

ans- (c)

29. Spherical shape of rain droplet is due to

- a. Cohesion
b. Surface tension
c. Adhesion
d. Capillary action

ans- b

30. Project tiger was launched in

- a. 1973
b. 1976
c. 1978
d. 1983

ans- d

31. World development report is the annual publication of

- a. UNDP
b. IBRD
c. WTO
d. IMF

ans- a

32. Who was the first Indian lady actress to receive the Padma Shri Award

- a. Smita Patil
b. Nargis Dutt
c. Meena Kumari
d. Madhubala

ans- c

33. Direction (Q.33 to Q.37):-

Study the following information carefully and answer the question given below. A, B, C, D, E, F, G and H are sitting around a circular table facing centre. H is fourth to the left of B and second to the right of F. A is third to the left of C, who is not an immediate neighbour of F. G is second to the left of A. D is second to the right of E.

33. Who is on the immediate right of F?

- (a) H (b) A (c) G (d) E

Ans-b

34. Who is third to the left of A?

- (a) C (b) F (c) B (d) G

Ans-c

35. In which of the following pairs is the first person sitting on the immediate left of the second person?

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- (a) EH (b) DB (c) CE (d) AF

Ans-B

36. Which of the following pairs represents the immediate neighbours of E?

- (a) DH (b) HC (c) CA (d) None of These

Ans-b

37. Who is on the immediate right of H?

- (a) E (b) C (c) H (d) F

Ans-a

38. Directions to solve:- (38-40)

In each of the following questions find out the alternative which will replace the questions mark

38. Ocean: Water :: Glacier : ?

- (a) Mountain (b) Cave (c) Refrigerator
(d) Ice

Ans-d

39. Fruit: Mango :: Mammal : ?

- (a) Snake (b) Sparrow (c) Fish (d) Cow

Ans-d

40. Mountain: Hill :: River : ?

- (a) Canal (b) Ocean (c) glacier (d) Road

Ans-a

