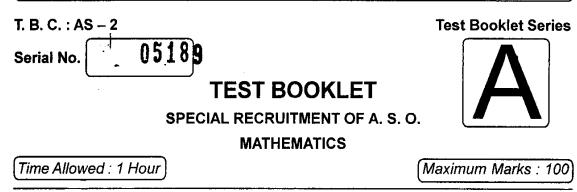


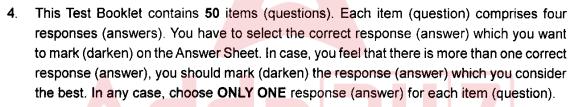


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- For any two positive integers r and s, HCF(r, s) × LCM(r, s) =
 - (A) r×s
 - (B) $r \times r s$
 - (C) $r + s \times s$
 - (D) None of the above
- 2. $5 \sqrt{3}$ is :
 - (A) Rational
 - (B) Irrational
 - (C) Rational and irrational both
 - (D) None of the above
- Let p be a prime number. If p divides m², where m is a positive integer then:
 - (A) p does not divide m
 - (B) mp is always an even number
 - (C) p divides m
 - (D) None of the above
- 4. $8\sqrt{15} \div 2\sqrt{3} =$
 - (A) $3\sqrt{5}$ (B) $4\sqrt{5}$
 - (C) $4\sqrt{3}$
 - (D) 4√15
- 5. The value of 4725-2879 by rounding each number to the nearest hundred is
 - (A) 1900
 - (B) 1846

(C) 1800

(D) None of the above

6. Raj completes $\frac{1}{6}$ of his project in $3\frac{1}{2}$ days. How long would he take to complete the whole project ?

- (A) 21 days
- (B) 7/12 days
- (C) 7/3 days
 - (D) 18 days
- 7. If the HCF of 210 and 55 is expressible in the form 210 × 5 + 55y then y =
 - (A) 19
 - (B) 5
 - (C) 55
 - (D) 19
- In a school there are two sections Section G and Section H of class X. There are 90 students in Section G and 144 students in section H. Determine the minimum number of books required for their class library so that they can be distributed equally among the students of Section G or Section H.
 - (A) 18
 - (B) 720
 - (C) 90
 - (D) 144

RF - 2A/9

(2)

Contd.





- The product of two 2 digit numbers is 1938. If the product of their unit's digits is 28 and that of ten's digits is 15, then find the numbers :
 - (A) 37, 54
 - (B) 36, 54
 - (C) 19, 38
 - (D) 34, 57
- 10. 280% of a number is 560. What is the number?
 - (A) 200
 - (B) 280
 - (C) 1568
 - (D) None of the above
- 11. How many two digit numbers are divisible by 3?
 - (A) 30
 - (B) 20
 - (C) 40

...

- its first term is 10 then the 20th term
- is ;
- (A) 200
- (B) 100
- (C) 1050
- (D) None of the above
- 14. Whether 301 is a term in the list of numbers 5, 11, 17, 23,
 - (A) Yes
 - (B) Yes if we have total number of terms as 51
 - (C) No
 - (D) None of the above
- 15. A quadratic equation $ax^2 + bx + c = 0$ has no real root if :
 - (A) $b^2 4ac > 0$
 - (B) $b^2 4ac = 0$
 - (C) b-4ac<0
 - (D) $b^2 4ac < 0$



- 17. Roots of the quadratic equation $2x^2 - 2\sqrt{2}x + 1 = 0$ are :
 - (A) $\left(\frac{1}{\sqrt{2}}, 2\right)$ (B) $\left(\frac{1}{\sqrt{2}}, 3\right)$ (1 1)

Adda 247

- (C) $\left(\frac{1}{\sqrt{2}}, \frac{1}{\sqrt{2}}\right)$
- (D) None of the above
- For what values of p does the pair of equations given below has unique solution :

$$4x + py + 8 = 0; 2x + 2y + 2 = 0$$

- (A) p = 4
- (B) p ≠ 8
- (C) For all values of p except 4
- (D) None of the above
- 4 chairs and 3 tables cost Rs. 2100
 and 5 chairs and 2 tables cost
 Rs. 1,750, then the cost of a chair is :
 - (A) Rs.150
 - (B) Rs. 500
 - (C) Rs. 15

- 21. $g(y) = 2y^3 + 5y 7$ is a :
 - (A) Cubic polynomial
 - (B) Quadratic polynomial
 - (C) Linear polynomial
 - (D) None of the above
- 22. The sum of the squares of zeroes of
 - the quadratic polynomial $f(x) = x^2 8x + k$ is 40 then value of k is :
 - (A) 14
 - (B) 3
 - (C) 8
 - (D) 12
- 23. Verify whether 2 and 0 are zeroes of the polynomial x² 2x :
 - (A) Yes
 - (B) No
 - (C) Yes if $x^2 = 3$
 - (D) None of the above

24. The remainder when $x^4 + x^3 - 2x^2 + x$ + 1 is divided by (x - 1) is :

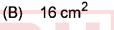
(A) 1

(B) 3



- 26. A fort had provisions of food for 300 men for 90 days. After 20 days, 50 men left the fort. How long would the food last at the same rate ?
 - (A) 108 days
 - (B) 70 days
 - (C) 84 days
 - (D) 48 days
- 27. A and B together can do a piece of work in 12 days. While B alone can finish it in 30 days. In how many days can A alone finish the work ?
 - (A) 18 days
 - (B) 20 days
 - (C) 30 days
 - (D) 12 days
- 28. At what rate percent per annum will a sum of Rs. 2,000 amount to Rs. 2,205 in 2 years, compounded annually?
 - (A) 6
 - (B) 20
 - (C) 2

- 30. Area of a regular hexagon each of whose sides measures 6 cm is :
 - (A) 92.528 cm²
 - (B) 93.528 cm²
 - (C) 36 cm^2
 - (D) None of the above
- 31. The lengths of tangents drawn from an external point to a circle are :
 - (A) Parallel
 - (B) Not equal
 - (C) Equal
 - (D) None of the above
- 32. The area of the sector of a circle with radius 4 cm and of angle 30° is (use $\pi = 3.14$) approximately :
 - (A) 4.19 cm²



- (C) 120 cm²
- (D) None of the above





- 34. Two sides of a triangle are 8 cm and 11 cm respectively and its perimeter is 32 cm then the area of the triangle is :
 - (A) $11\sqrt{2} \text{ cm}^{2^{-1}}$
 - (B) $30\sqrt{2} \text{ cm}^2$
 - (C) $11\sqrt{30}$ cm²
 - (D) $8\sqrt{30}$ cm²
- 35. If the sum of a pair of opposite angles of a quadrilateral is 180°, then the quadrilateral is :
 - (A) Asymptote
 - (B) Cyclic
 - (C) Cubic
 - (D) None of the above
- 36. Surface area of a cuboid whose length, breadth and height are 15 cm, 10 cm and 20 cm respectively is :
 - (A) 6000 cm^2
 - (B) 1300 cm²
 - (C) 3000 cm^2
 - (D) None of the above
- 37. Find the curved surface area of a right

respectively, then the volume of the cone is (take $\pi = 22/7$):

- (A) 154 cm^3
- (B) 1848 cm³
- (C) 84 cm³
- (D) 7546 cm³
- 39. A hemispherical bowl has a radius 3.5 cm. What would be the volume of water it would contain ? (take $\pi = 22/7$):
 - (A) 84.8 cm³
 - (B) 89 cm³
 - (C) 89.8 cm^3
 - (D) None of the above
- 40. A cone of height 24 cm and radius of base 6 cm is made up of modeling clay. A child reshapes it in the form of a sphere. Then the radius of the sphere will be :







- 42. A cube has total surface area 486 cm². Then volume of the cube is :
 - (A) 829 cm^3
 - (B) 486 cm^3
 - (C) 720 cm^3
 - (D) None of the above
- 43. The bar graph is a pictorial representation of numerical data in the form of rectangles of :
 - (A) Equal width or varying heights
 - (B) Equal width and varying heights
 - (C) Equal width and constant heights
 - (D) None of the above
- 44. The number of times a particular observation occurs in a given data is called its :
 - (A) Range
 - (B) Frequency
 - (C) Group
 - (D) None of the above
- 45. The height (in cm) of 9 students of a class are as follows :

155, 160, 145, 149, 150, 147, 152, 144, 148.

- (B) 1
- (C) 71/150
- (D) 79/150
- 47. Suppose we throw a die once, what is the probability of getting a number greater than 4?
 - (A) 1/6
 - (B) 3
 - (C) 4/6
 - (D) 1/3
- 48. A box contains 3 blue, 2 white and 4 red marbles. If a marble is drawn at random from the box, then what is the probability that it will be a red ?
 - (A) 1/9
 - (B) 1/3
 - (C) 2/9
 - (D) None of the above
- 49. An unbaised die is thrown, what is the probability of getting an even number?
 - (A) 1/6 (B) 1/2

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