SRI RAMANUJAM MATHS & SCIENCE CREATIVE EXAM

CREATES INTELLECTS

EAVE FOUNDATION, VIJAYAWADA - 4.

(2001 – 2002)

CLASS – VII

Hall Ticket No,

Name :.....

Father Name : .....

School Name : .....

Time 1 $\frac{1}{2}$ Hour Centre _____ **Marks : 100**

మీరు చదువుతున్న పాఠశాల పూర్తి అడ్రసు (వెనుక పేజీలో) **Maths & Hindi Teachers Names** తప్పక వ్రాయవలెను. 2. కరక్ట్ ఆన్సర్ గల నెంబరును కలముతో గ్రుండని ఆకారంలో దిద్దవలెను. ఉదా : ① ② ● ④

1. If $x + \frac{1}{x} = 3$ then $x^2 + \frac{1}{x^2} =$
   ① 17 ② 26 ③ 7 ④ 37
2. $\sqrt{a^{-1}.b} \times \sqrt{b^{-1}.c} \times \sqrt{c^{-1}.a}$
   ① a^2 ② a° ③ $2a^2b^2$ ④ 3abc
3. If $\sqrt{144} = 12$ then $\sqrt{0.0144}$
   ① 0.12 ② 0.012 ③ 0.0012 ④ 12.00
4. The sum of the numbers between 1 and 100 that are divisible by 9 is
   ① 1594 ② 1394 ③ 594 ④ 549
5. If $3^{x+2} = 1$ then value of x =
   ① –2 ② +4 ③ –12 ④ 40
6. If the side of a rhombus is 17cm and one of the diagonal is 30cm,Length of the other diagonal is
   ① 8 ② 16 ③ 32 ④ 40
7. Area of Isosceles right angle triangle of sides 'a' (interms of its hypotenuse 'd')
   ① d^2 ② $\frac{d^2}{2}$ ③ $\frac{d}{2}$ ④ $\frac{d^2}{4}$
8. In a ΔABC, $b^2 = a^2 + c^2$ then __ is a right angle
   ① $\angle A$ ② $\angle B$ ③ $\angle C$ ④ None
9. The average of 9, 11, 13, P, 18, 19 is P then the value of P
   ① 144 ② 70 ③ 24 ④ 14
10. The average marks secured by 36 students was 52. But it was discovered that an item 64 was misread as 46, then correct mean of marks is _____
    ① 51.5 ② 61.5 ③ 71.5 ④ 81.5
11. If $\left(a^m\right)^n = a^{mn}$ then m = _____
    ① n^{n+1} ② $n^{\frac{n-1}{2}}$ ③ $n^{1/n-1}$ ④ $n^{1/n+1}$
12. $(a^{1/3} - b^{1/3})(a^{2/3} + a^{1/3}.b^{1/3} + b^{2/3}) =$ ____
    ① a – b ② a + b ③ $a^3 + b^3$ ④ $a^2 - b^2$
13. $(0.001)^{1/3} =$ _____
    ① $1/100$ ② $\frac{1}{10}$ ③ $\frac{1}{1000}$ ④ 10
14. Value of $16^{0.5} =$ _____
    ① 4 ② 16 ③ 0.5 ④ 8
15. The union of two rays having a common end point is known as _____
    ① Straight line ② Point
    ③ Degree ④ Angle
16. Quotient of $2x^3 - 3x^2 + 2x - 1$ is divided by (x –1) is
    ① $x^2 + x + 4$ ② $x^2 - x + 1$ ③ $2x^2 + 1$ ④ $2x^2 - x + 1$
17. Coefficient of x^2 in the product (x + 1) (x + 2)
23. If $x^a = x^{5a-8}$ then a =
    ① 2 ② 12 ③ 92 ④ 32
24. $\frac{\left(2a^2b^3\right)^4}{(ab)^3} =$ _____
    ① $2ab^9$ ② $2a^{15}.b$ ③ $2a^5b^9$ ④ $2a^5b^5$
25. $\left(3^2\right)^3 \div \left(3^2\right)^2 =$ _____
    ① 109 ② 81 ③ 19 ④ 9
26. If $2^m = 256$ then 2^{2m-5} is
    ① $2^{10} \times 2^{-1}$ ② $2^{11} \times 2^0$ ③ $2^{12} \times 2$ ④ $2^8 \times 2^6$
27. The diagonal of a square is 6cm, its area is
    ① 14 ② 28 ③ 18 ④ 36
28. The diagonals of a Rhombus are 9cm, 12cm its perimeter is _____
    ① 30 ② 54 ③ 67 ④ 96
29. The ratio of the sides of a triangle whose angles are 45°, 45°, 90° is
    ① 1:1:1 ② $1:1:\sqrt{2}$ ③ 1:1:2 ④ $1:2:\sqrt{3}$
30. Number of Independent measurements are required to construct a trapezium is >_____
    ① 3 ② 5 ③ 4 ④ 2
31. The point of concurrence of the angle bisectors of a triangle is called _____
    ① Circumcentre ② Incentre
    ③ ortho centre ④ centroid
32. Centroid divides the median of a triangle in the ratio of (starting from the vertex) is
    ① 1 : 1 ② 1 : 2 ③ 2 : 1 ④ 3 : 2
33. 72° and $\angle B$ are a pair of supplementary angles then $\angle B$ = _____
    ① 90° ② 100° ③ 118° ④ 108°
34. $\sqrt{2^x} = 64$ then x =
    ① 24 ② 9 ③ 6 ④ 12
35. ABCD is a parallogram in which $\angle A = x + 20$ and $\angle C = 3x - 10°$ then x = _____
    ① 15 ② 20 ③ 35 ④ 30
36. Length of arc of sector is 18cm and the radius of sector is 7cm then its area is
    ① $126cm^2$ ② $63\ cm^2$ ③ $16\ cm^2$ ④ $90\ cm^2$
37. Area of four walls of a room 12 mt × 8 mt × 5 mt is
    ① $200\ mt^2$ ② $1200mt^2$ ③ $480\ mt^2$ ④ 125mts
38. $(a^{-1} + b^{-1})^0 =$ _____
    ① 0 ② 1 ③ –1 ④ 2
39. Given A = 2196; P = 2500; n = 2 from the