** Learners’ Academy English School**

**Std:- X First Term Examination Total Marks -50**

**Date:-18/09/17 Subject –Maths Time –1 hour**

 **PART -A**

**Choose the correct option.**

1. g.c.d (15,24,40) =……………..

A.136 B.1 C.221 D.391

2. l.c.m. (220,132 )=…….

A.660 B.136 x 221 x 391 C. g.c.d(136, 221,391) D.136 x 221

3.If g .c .d. (a,b) = 18, l.c.m (a,b)≠

A.36 B.72 C.48 D.108

4.5n (n € N) ends with…..

A. 0 B. 5 C. 3 D. 6

5. Product of any four consecutive positive integer is divisible by………..

A. 16 B. 48 C. 24 D. 32

6. √‾3+√‾5=…………

A. √‾3+√‾2 B.√‾5+1 C. √‾5+1/2 D. does not exit

7. 0.02222…....is a

A. rational number B. integer C. irrational number D. Zero

8. The product of the Zeros of x2-4x+3 is ……

A. 1 B. 3 C. 4 D. -4

9. The graph of p(x)=3x-2-x2 intersect the x axis………..point.

A. 0 B.1 C.2 D.3

10.The graph of p(x)=3x+5 represent…………..

A. astraight line B. Parabola open upward

C. parabola open downward D. a ray

11the cubic polynomial p(x)=x3-x has ……..zeros.

A .o B. 1 C.3 D.2

12.If the sum of Zero is -7 and the product of the Zero is 12, then the quadratic polynomial is ……….. .

A. p(x) = x2-7x+12 B. p(x) = x2+7x-12 C. p(x)=x2+7x+12 D. p(x) = x2-7x-12

13.For p(x) = x2-2x-3, p(2) =……… .

A. 1 B. 3 C. -3 D. 0

14. If in a two digit number ,the digit at unit place is x and the digit at tens place is 5 ,then the number is …………. .

A. 50+x B. 30+x C.x+50 D. 5x

15.The number of real zero of y = p(x) is …………. In the given figure.

A. 2 y

B. 0

C. 1 o x

D. 3

16. The solution set of x-3y=1and 3x+y=3 is ………. .

A. (0,1) B. (1 , 1) C. (1 , 0) D. (1,3)

17. To eliminate x, from 2x + y = 8 and –x + 2y = 2 second equation is multiplied by…….. .

A. 1 B. 2 C. 3 D. -1

18 .3year ago ,the sum of ages of a father and his son was 40years .After 2 years the sum of ages of the father and his will be ………..

 A.40 B.46 C.50 D.60

19.The pair of linear equation 2x + y – 3=0 and 6x + 3y=9 has ……………

A. a unique solution B. two solution

C. No solution D. Infinitely solution

20. In a two digit number the digit at tens place is 7 and the sum of digit is 8 times the digit at unit place. Then the number is……… .

A. 70 B. 71 C. 17 D. 78

21. The sum of two number is 10 and the difference of then is 2. Then the greater number of these two is………

A. 2 B. 4 C. 6 D. 8

22. A pair of the linear equation which has no solution is called------------

A. inconsistent pare B. Linearly dependent C. Consistent D. None of these

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23.the sum of two digit no is 35.four times the larger number is 5 more than 5 times the smaller number .Find the numbers.

A. 20 ,15 B. 46 ,25 C. 55 ,6 D. 60, 15

24 the solution set of 2x + 4y = 8 and x + 2y = 4 is ……… .

A. (2,1) B. empty set C. infinite set D. (0,0)

 25. ABC ↔DEF is a similarity in ∆ABC and ∆DEF, m ∠ A=40, m∠ E+m∠ F=…….. .

A.40 B.80 C. 140 D. 180

26. In ∆XYZ and ∆ PQR , XYZ ↔PQR is similarity. XY=12, YZ=8, ZX=16, PR=8, So PQ+QR=…

A . 20 B. 10 C. 15 D. 9

27. The bisector of ∠Bin AC in D. If BA=12, BC=16, AD=9,then AC=……….

A. 15 B. 21 C. 18 D. 8

28. In ∆ PQR, P-M-Q and P-N-R ,If PQ=18, PM=12, PR=9 and NR=……,then MN|| QR.

A. 27/2 B. 3 C. 24 D. 6

29. The corresponds ABC↔YZX is similarity m∕͟B + m∕͟c=120 so m∕͟Y=………

A. 70 B. 55 C. 110 D. 60

30. In ∆ABC, AB2 +AC2 =50.The length of the median AD=3.so BC=………..

A. 4 B. 24 C. 8 D.16

31. In ∆ABC m⁄͟ B=90, AB=BC. Then AB:AC=………..

A.1:3 B 1:2 C. 1:$\sqrt{2}$ D. $\sqrt{2:1}$

32. In ∆ABC m⁄\_B =90 and AC=10 .The length of the medianBM=………..

A. 5 B. 5√‾2 C. 6 D.8

33. The diagonal of a square is 5√‾2.The length of the side of the square is …………

A. 10 B. 5 C. 3√‾2 D. 2√‾2

34. The perimeter of an equilateral triangle is 6. The length of altitude of the triangle is …

A. $\sqrt{3}$ /2 B. 2√‾3 C. 2 D.√‾3

35. The length of a diagonal of the rectangle is 13. If one of the side of the rectangle is 5 ,the perimeter of the rectangle is…………….

A. 36 B. 34 C. 48 D. 52

36. The length of a median of an equilateral triangle is √‾3. Length of the side of the triangle is ………………

A. 1 B. 2√‾3 C. 2 D. 3√‾3

37. In ∆ABC m∕͟A=90, ‾ADis an altitude .So AB2=………

A. BD.BC B. BD.DC C. BD/DC D. BC.DC

38. the probability of the certain event is ……………

A. o B. 0.5 C. 1 D. 2

39. the probability of an event is greater than or equal to………..

A. 1 B. 1.2 C. 2 D. 0

40. The probability of the impossible event is………..

A.0 B. 1 C.2 D.3

41.The probability that you will get 101 marks in the paper which is in your hand is ……… .

A. 1 B. 0.5 C. 0 D. -0.5

42. The probability of the event “the sun rises in the west” is ……….. .

A. 1 B. 0.5 C. 0 D. -0.5

43. The sum of the probability of all the elementary events of an experiment is …………. .

A. 0 B. 0.2 C. 1 D. 0.8

44.Equation $\frac{x}{2}$ - $\frac{y}{3}$ = 1 can be expressed in the standard form as .

A. 2x-3y-6=0 B. 3x-2y-6=0 C. 3x-2y=1 D. 2x-3y=3

45. If P(A) = 0.65, then P(A) = …….. .

A. 0 B. 0.35 C. 0.65 D. 1

46. A tangent from p, a point in the exterior of a circle, touches the circle at Q. if OP = 13, PQ = 5, then the diameter of the circle is ………… .

A. 576 B. 15 C. 8 D. 24

47. In $∆$ ABC, AB = 3, BC = 4, AC = 5, then the radius of the circle touching all the three sides

A. 2 B. 1 C. 4 D. 3

48. A chord of circle (0,5) touches circle (0,3). Therefore the length of the cord = ……….. .

A.8 B. 10 C. 7 D. 6

49. The point of contact of tangents from an exterior point p to the circle with centre o are A and B. If m ⁄͟POB = 30, them m ⁄͟AOB = ……….

A. 30 B. 60 C. 90 D. 120

50.P is in exterior of circle (0,15). A tangent from p touches the circle at T. if PT = 8, then OP = ……….

A. 17 B. 13 C. 23 D. 7

**All The Best**