Mathematics & Numerical Reasoning Test 1

1. What is the missing number in this series?
   57   45   ?   21   9

   A 102
   B 12
   C 30
   D 33
   E none of these

2. A house in Melbourne was sold for $ 280,000. A commission for selling this house was calculated according to the following method: 2% for the first $ 200,000 and 1% for the remainder. How much commission would the agent get for selling that house?

   A $ 48,000
   B $ 4,800
   C $ 5,080
   D $ 56,000
   E $ 5,600

3. A box contains 20 marbles, 8 coloured red, 6 coloured blue and 6 coloured green. If one marble was taken from the box, what is the probability that it was coloured blue or green?

   A 3/6
   B 4/5
   C 2/5
   D 3/10
   E none of these

4. Find the number that comes next in the series
   25   16   ?   4   1

   A 5
   B 7
   C 9
   D 10
   E 13

5. If 10 pencils cost as much as one pen but half the price of a book, then two books will cost the same as:

   A 20 pencils plus 2 pens
   B 10 pencils plus 4 pens
   C 10 pencils
   D 20 pencils
   E none of these

6. The sum of two numbers is 90, and the second divided by the first equals 5. What are the two numbers?

    A 5 & 85
    B 6 & 15
    C 15 & 75
    D 30 & 60
    E 45 & 45

7. If these numbers are written in order, smallest to largest, what will be the middle number?
3736   8620   845   2351   8535

    A 3736
    B 8620
    C 845
    D 2351
    E none of these

8. If 9 March, 2001 is a Friday, what will the following Thursday be?

    A 22 March, 2001
    B 16 March, 2001
    C 15 March, 2001
    D 13 March, 2001
    E none of these

9. Which of the following numbers cannot be divided by 9?
9, 21, 27, 31, 36, 47, 54, 72, 83, 99, 105

    A 9, 21, 31, 36
    B 17, 21, 27, 54, 72
    C 21, 34, 39, 73, 109
    D 9, 21, 36, 83, 99
    E 21, 27, 36, 72, 99, 105

10. A nine litre bucket has four litres of paint in it. How much more paint needs to be added to half fill it?

    A 5 litres
    B 1 litres
    C ½ litres
    D 7 litres
    E you can not tell

11. To measure the volume of a container, we use

    A mm
    B km
    C L
    D kg
    E m^2

12. A unit of area is …

    A tonnes
    B yards
    C mass
    D square metre
    E none of these

13. When a dice of six even sides is tossed, what is the chance of any one side being on the upper face?

    A 1
    B 6
    C 1/3
    D 1/6
    E none of these

14. Which of the following numbers is not a multiple of 9?
    18, 81, 63, 73, 99, 108, 126, 162

    A 63
    B 73
    C 108
    D 162
    E none of these

15. How many lines of symmetry does an equilateral triangle have?

    A 0
    B 1
    C 2
    D 3
    E 4

16. Which one of these has the longest distance?

    A 0.66 km
    B 606 m
    C 6,066 cm
    D 100, 000 mm
    E 6000 dm

17. When the minute hand of a clock moves through 15 minutes of time, how many degrees does it move through?

    A 15°
    B 30°
    C 45°
    D 60°
    E 90°

18. If x = -2, y = 3 then 8x + 3y – 3x + 7y = ?

    A 5x + 10y
    B 11x + 10y
    C 30
    D 40
    E - 300

19. Tom has a bag of marbles. She gave half of them to Tim and then a third of the marbles still in the bag to Tam. He then had 6 marbles left. How many marbles in the bag to start with?

    A 36
    B 30
    C 24
    D 18
    E none of these

20. A report says that about 18,200 students had been sat in the entrance examination. The number was rounded to the nearest ten. Which of these could have been the actual number of students sat for the exam?

    A 18,043
    B 18,149
    C 18,189
    D 18,289
    E 18,328

21. A metal bar, a wooden bar, and a plastic bar are placed in hot water. After 30 seconds, which bar will feel hottest?

    A the plastic bar
    B the metal bar
    C the wooden bar
    D all the tree bars feel the same
    E none of these is correct

22. A pie chart is drawn to represent 4 items. The angles of three of the sectors are 90°, 100° and 125°. The fourth sector as a percentage of the whole pie chart is

    A 12.5
    B 25
    C 45
    D 75
    E none of these