PART - A (WORKSHOP CALCULATION & SCIENCE)  (Marks : 75)

Choose the correct answers:

1. 0.2 Kg =
   a) 200 gram     b) 20 gram     c) 2 gram     d) None of these

2. The number \( \frac{1}{3} \times \frac{1}{2} + \frac{1}{3} \) is equal to -
   a) 1     b) \( \frac{1}{2} \)     c) 2     d) \( \frac{1}{4} \)

3. One gallon is equal to _____ litres.
   a) 4.1 litre     b) 4.24 litre     c) 4.50 litre     d) 4.54 litre

4. Reciprocal of -5 is -
   a) \( -\frac{1}{5} \)     b) \( \frac{1}{5} \)     c) \( -\frac{1}{5} \)     d) 1

5. Sum of Number \( \frac{7}{12} \) & \( \frac{5}{16} \) is equal to -
   a) \( \frac{7}{48} \)     b) \( \frac{11}{30} \)     c) \( \frac{7}{48} \)     d) \( \frac{1}{3} \)

6. The quantity of matter of a substance contains is termed as -
   a) Weight     b) Density     c) Relative density     d) Mass

7. Sum of 2.012 and 201.2 is -
   a) 203.32     b) 203.032     c) 201.32     d) 203.212

Contd... 2/
8. 127 cm is equivalent to -
   a) 5 inches  b) 50 inches  c) 500 inches  d) None of these

9. Find the weight of a cube of M.S. of 14 cm side with its density being 7.8 gm/cc.
   a) 21.4 kg  b) 2.14 kg  c) 0.214 kg  d) 1.528 kg

10. 0.3 litre is equal to -
    a) 300 ml  b) 3000 ml  c) 25 ml  d) None of these

11. 1 m³ is equivalent to -
     a) 10 litres  b) 100 litres  c) 1000 litres  d) None of these

12. 25.4 mm is equal to -
     a) 10 inch  b) 0.01 inch  c) 1 inch  d) None of these

13. In a 90 kg weighting non ferrous casting containing Cu, Tin & Zn in the ratio of 6:3:1, the weight of copper is -
     a) 27 kg  b) 9 kg  c) 54 kg  d) None of these

14. A 100 metres long rope is cut into two parts so that one part is \( \frac{2}{5} \) th of total length, length of two parts separated are -
     a) 20m, 50m  b) 40m, 60m  c) 30m, 70m  d) 50m, 50m

15. Product of \( 2\frac{1}{2} \) and \( 3\frac{1}{2} \) is equal to -
     a) 6.5  b) 7.75  c) 8.75  d) 8.125

16. If a pump can raise 1000 litres of water per minute to a height of 45 metres, then its horse power of the pump is -
     a) 9 HP  b) 10 HP  c) 24.3 HP  d) None of these

17. A car weighting 4000 kg travelling of 25 km/sec stops in 5 sec by decelerating uniformly, then its retardation is -
     a) -2 km/sec²  b) 5 km/sec²  c) 8 km/sec²  d) -8 km/sec²

18. Which one among the following four values of squares ends with its last digit six -
     a) 19²  b) 82²  d) 109²  d) 24²

19. The unit of energy in SI system is -
     a) Erg  b) Caloric  c) Joule  d) Volt

20. The unit of power is -
     a) Erg  b) kW  c) kW  d) None of these
21. 0°C is equal to –
   a) 20 °F  
   b) 25 °F  
   c) 32 °F  
   d) 320 °F

22. The value of ‘X’ in the following ratio X : 4 = 9 : 6 is –
   a) 2.66  
   b) 13.5  
   c) 6  
   d) 2.166

23. If the area of a square plot is 2304 m², then the side of the square is –
   a) 45 meters  
   b) 48 meters  
   c) 47.9 meters  
   d) 49.02 meters

24. 0.1 x 0.01 =
   a) 0.1  
   b) 0.01  
   c) 0.001  
   d) 0.00001

25. 52.5 lbs equivalent to –
   a) 23.814 kg  
   b) 26.25 kg  
   c) 15.75 kg  
   d) 115.5 kg