

**PAPER-II**  
**WORKSHOP CALCULATION & SCIENCE & ENGINEERING DRAWING**  
**SEMESTER-I**  
**(MORNING SESSION)**  
**(10<sup>th</sup> PASS TWO YEAR TRADES)**

TIME: 3 HRS.

MARKS: 150

Note: This paper contains two parts – Part A & Part B.  
 Attempt all the questions.  
 All questions carry equal marks.  
 This paper carries negative marking. 25% marks will be deducted for each wrong answer.

**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  $\frac{1}{3} \times \frac{1}{2} \div \frac{1}{3}$  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) -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)  $\frac{17}{48}$       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 14cm 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.  $1 \text{ m}^3$  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)  $-2 \text{ km/sec}^2$       b)  $5 \text{ km/sec}^2$       c)  $8 \text{ km/sec}^2$       d)  $-8 \text{ km/sec}^2$
18. Which one among the following four values of squares ends with its last digit six –  
 a)  $19^2$       b)  $82^2$       c)  $109^2$       d)  $24^2$
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) kWh      c) kW      d) None of these

21.  $0^{\circ}\text{C}$  is equal to --  
a)  $20^{\circ}\text{F}$                       b)  $25^{\circ}\text{F}$                       c)  $32^{\circ}\text{F}$                       d)  $320^{\circ}\text{F}$
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  $2304 \text{ m}^2$ , then the side of the square is --  
a) 45 meters                      b) 48 meters                      c) 47.9 meters                      d) 49.02 meters
24.  $0.1 \times 0.01 =$   
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

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