

**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                                      s) 1
5. Sum of Number  $\frac{7}{12}$  &  $\frac{-5}{16}$  is equal to –  
 a)  $\frac{-7}{48}$                                       b)  $\frac{-11}{30}$                                       c)  $\frac{13}{48}$                                       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

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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