

PAPER-II
WORKSHOP CALCULATION & SCIENCE & ENGINEERING DRAWING
SEMESTER-I
(MORNING SESSION)
(10th 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.

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

Choose the correct answers:

1. $0.1 \times 0.01 =$
a) 0.1
b) 0.01
c) 0.001
d) 0.0001
2. If the volume of pure water is given as 62 m^3 and its mass as 62000 kg, then the density =
a) 100 kg m^{-3}
b) 10 kg m^{-3}
c) 1000 kg m^{-3}
d) 1×10^{-3}
3. The perimeter of rectangle is 320m, its sides are in the ratio of 5:3 then its area is –
a) 6000 m^2
b) 3000 m^2
c) 12000 m^2
d) 24000 m^2
4. A Force due to pull of gravity is known as _____
a) Weight
b) Force
c) Mass
d) None of these
5. The unit of energy in SI system is –
a) Joule
b) Calorie
c) Erg
d) Electron volt

Contd...2/-

6. The weight of cube material of 14 cm side and whose density is 7.8gms/cc is –
a) 21.4 kg
b) 25.4 kg
c) 44.4 kg
d) 34.4 kg
7. Find the ratio of 90 cm to 15 m.
a) 3:50
b) 5:3
c) 6:1
d) None of these
8. The example of potential energy is –
a) Blowing wind
b) Rotating wheel
c) Flowing water
d) Water in over head tank
9. Parentage of kind of fraction whose denominator is always –
a) 0
b) 1
c) 10
d) 100
10. $12846 \times 593 + 12846 \times 407 = (\dots\dots\dots)$
a) 24064000
b) 12846000
c) 24038606
d) 24203706
11. $\frac{26}{\sqrt{x}} = 2$
a) 196
b) 169
c) 125
d) 225
12. If $250/\sqrt{x} = 10$. Find the value of x.
a) 6250
b) 2506
c) 625
d) 256
13. Compare the ratios 2:3 & 4:7.
a) $2:3 < 4:7$
b) $2:3 > 4:7$
c) $2:3 = 4:7$
d) None of these
14. $342197 \times 9999 = \underline{\hspace{2cm}}$
a) 3221627803
b) 3521627803
c) 3421627803
d) 3321627803
15. If the side of a square is increased by 25%, then its area is increased by _____ %.
a) 56.25
b) 50
c) 125
d) 156.25
16. When we apply force on any object, it changes its position, we say that _____ is done.
a) Nothing
b) Work
c) Effort
d) None of these

Contd...3/-

17. Work depends upon _____.
a) Amount of force
b) The distance through which object moves
c) Both (a) & (b) d) Neither (a) nor (b)
18. The two diagonals are not necessarily equal in a _____.
a) Rectangle b) Square
c) Rhombus d) Isosceles trapezium
19. The bisectors of any two adjacent angles of a parallelogram intersect at -
a) 30° b) 45°
c) 60° d) 90°
20. How many diagonals are there in a hexagon?
a) 6 b) 8
c) 9 d) 10
21. $3/5 = ?$
a) 30% b) 40%
c) 45% d) 60%
22. 0.8% when expressed as decimal is -
a) 0.08 b) 0.008
c) 8 d) 0.8
23. What least number must be subtracted from 176 to make it a perfect square?
a) 16 b) 10
c) 7 d) 4
24. _____ can neither be created nor be destroyed.
a) Work b) Power
c) Energy d) All of these
25. To find _____ energy, we use the formulae mgh .
a) Mechanical b) Electrical
c) Potential d) Kinetic
