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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 m³ 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 –
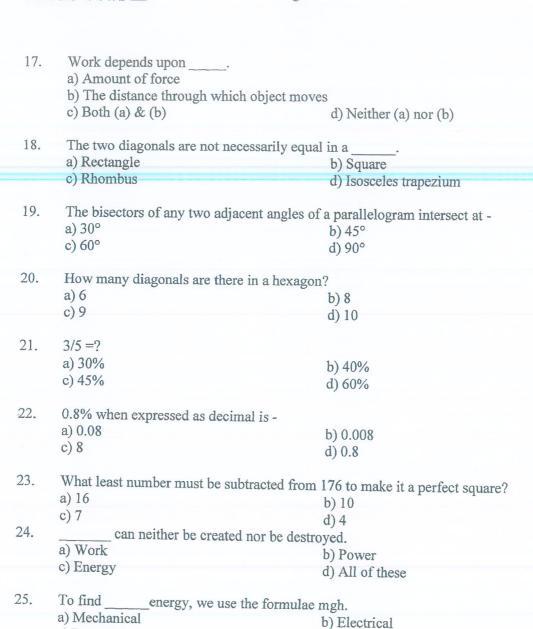   a) Joule   b) Calorie
      c) Erg   d) Electron volt

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. 12846x593+12846x407= (..............)
    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 x 9999= _____
    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

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

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