

PAPER – II
(WORKSHOP CALCULATION & SCIENCE AND EMPLOYABILITY SKILLS)
FOR THE TRADES WITH MINIMUM QUALIFICATION 8TH PASS
ONE YEAR DURATION
(EVENING SESSION)
SEMESTER – II

**CARPENTER, FOUNDRYMAN, FOUNDRYMAN TECHNICIAN,
 MASON (BUILDING CONSTRUCTOR), MECHANIC TRACTOR, PLUMBER,
 SHEET METAL WORKER, WELDER , WELDER (GMAW & GTAW),
 WELDER PIPE, WELDER STRUCTURAL, WELDER (WELDING & INSPECTION),
 WELDER (FABRICATION & FITTING)**

TIME: 3 HRS.

MARKS: 125

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 answer:-

1. Area of a circle is given by _____
 a. πr^2 c. Both (a) & (b)
 b. $\pi d^2/4$ d. $\pi d^2/2$
2. One side of a rectangular field is 4 m and its diagonal is 5 m. the area of the field is _____
 a. 12 m^2 c. 20 m^2
 b. 15 m^2 d. $4\sqrt{5} \text{ m}^2$
3. The sides of a triangle are 13m, 14m and 15 m. The perimeter of the triangle is _____
 a. 42 m c. 84 m
 b. 82 m d. 142 m
4. Determine the radius of a circle whose circumference is 110 cm.
 a. 15.5cm c. 51.5cm
 b. 71.5cm d. 17.5cm
5. The height of a triangle whose base is 13cm and area is 65 cm^2 is _____
 a. 12 cm c. 10 cm
 b. 15 cm d. 20 cm

Contd...2/-



6. One inch =
a. 2.54 cm
b. 25.4 mm
c. Both (a) & (b)
d. 254 cm
7. Percentage is a kind of fraction whose denominator is always _____.
a. 0
b. 1
c. 10
d. 100
8. Reduce the ratio 72:18 in its simplest form _____.
a. 4:1
b. 1:4
c. 3:12
d. 12:3
9. If the volume of two cubes are in the ratio 27:1, the ratio of their edges is _____.
a. 3:1
b. 3:2
c. 3:5
d. 3:7
10. 66 cubic centimetre of silver is drawn into a wire of 1 mm in diameter. The length of the wire in meter will be _____.
a. 76 m
b. 80 m
c. 84 m
d. 88 m
11. $(0.351 \times 0.897 + 0.351 \times 0.103) =$ _____.
a. 8.97351
b. 0.351
c. 3.518970
d. 0.897
12. $832 \times 0.999 =$ _____.
a. 8.31168
b. 8.31668
c. 8.31618
d. 0.831168
13. Subtract 9.8103 from 10.01 _____.
a. 1.0197
b. 1.1197
c. 0.1997
d. 0.9197
14. Steel is said to be _____ elastic than rubber.
a. More
b. Less
c. Same as rubber
d. None of these
15. $-40^{\circ}\text{C} =$ _____.
a. 40°F
b. -40°F
c. 80°F
d. -80°F
16. Unit of shear strain is _____.
a. m
b. cm
c. Rad
d. No unit

17. Stress is a/an _____
a. External force
b. Internal resistive force
c. Axial force
d. Radial force
18. The device used for measuring temperature is _____
a. Thermometer
b. Ammeter
c. Anemometer
d. Ammeter
19. The normal temperature of Human body is _____
a. 40 °C
b. 37 °C
c. 42 °C
d. 35 °C
20. The liquid used in a Thermometer is _____
a. Mercury
b. Silver
c. Gold
d. Copper
21. The process by which heat flows from the hotter end to colder end of an object is called _____
a. Conduction
b. Convection
c. Radiation
d. Vaporisation
22. As temperature increases, what happens to the current-carrying ability of a wire?
a. There is no change.
b. The wire can carry more current
c. The wire can carry less current
d. The wire can carry no current
23. A voltmeter is mainly used to _____
a. Measure difference of potential
b. Measure current flow
c. Determine total resistance
d. Determine power output
24. In case of Short Circuit, _____ Current will flow in the Circuit.
a. Zero
b. Very Low
c. Normal
d. Excessive
25. Two bulbs marked 200 watt-250 volt and 100 watt-250 volt are joined in series to 250 volt supply. Power consumed in circuit is
a. 33 watt
b. 67 watt
c. 100 watt
d. 300 watt