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Score: 13/25 (52.00%)

Code: 2271

1. What is the value of x , if $x^*(120) = 960$?

- A) 6
B) 7
C) 8 (Correct)
D) 10

2. What is the formula for $a^m \times a^n$?

- A) a^{m+n}**
B) a^{m-n}
C) a^{mn}
D) $n.a^m$ (Incorrect)

3. Which is the formula for a^m / a^n ?

- A) a^{m+n}
B) **a^{m-n} (Correct)**
C) a^{mxn}
D) $(a^m)^n$

4. What is the subtracted value of $3x - 4x^2 + 2y^2$ from $4y^2 - 2x + 8x^2$?

- A) $2y^2 - 5x + 12x^2$**
B) $2y^2 + 5x - 12x^2$
C) $2y^2 - 5x - 12x^2$ (Incorrect)
D) $(-2y^2 - 5x + 12x^2)$

5. What is the length of arc of a sector, whose radius is 15 cm and angle is 40 Degree?

- A) 9.75 cm
B) 9.8 cm
C) 10.60 cm
D) 10.4 cm (Correct)

6. What is the diameter of the circle, if the area of the circle is 78.5cm^2 ?

- A) 5 cm
B) **10 cm**
C) 15 cm (Incorrect)
D) 5.5 cm

7. What does EMF stands for?

- A) Electronic Magnetic Force
B) **Electro Motive Force**
C) Electro Magnetic Force (Incorrect)
D) Electromated Force

8. Which is the example for dynamically induced Emf?

- A) Motor
B) **Generator (Correct)**
C) Car
D) Motor bike

9. What is the ratio of change in length to original length?

- A) Linear strain (Correct)**
B) Lateral strain
C) Volumetric strain
D) Poisson's ratio

10. What is the relative permittivity of rubber?

- A) Between 2 and 3**
B) Between 5 and 6
C) Between 8 and 10
D) Between 12 and 14 (Incorrect)

11. What is the weight of a rectangular block of a cast iron of $250\text{cm} \times 20\text{cm} \times 8\text{cm}$ (density of cast iron is 7.8gm/cm^3)?

- A) 312 kg**
B) 372 kg
C) 410 kg (Incorrect)
D) 525 kg

12. Which is example for second order lever?

- A) Common balance
B) A pair of scissors (Incorrect)
C) **Bottle opener**
D) Human forearm

13. What is the density of aluminium?

- A) 2.7g/cm^3**
B) 3.7g/cm^3
C) 4.7g/cm^3 (Incorrect)
D) 5.7g/cm^3

14. Which property of a metal possessed by it melts when heat is applied?

- A) Conductivity
B) Malleability
C) **Fusibility (Correct)**
D) Tenacity

15. Which property of a metal enables it by which it can be drawn out into wires under tension without rupture?

- A) Ductility (Correct)**
B) Malleability
C) Hardness
D) Brittleness

16. Which insulating material is used for making switches?

- A) Porcelain
B) PVC
C) **Bakelite (Correct)**
D) Ebonite

17. What is the area of a sector of a circle of radius 5 cm and its angle is 96 Degree?

- A) 20.39cm^2 (Incorrect)
B) **20.93cm^2**
C) 20.89cm^2
D) 20.98cm^2

18. How the 'Principal' is denoted in simple interest calculation?

- A) 'P' (Correct) B) 'I'
C) 'R' D) 'n'

19. What is the profit amount, if the i - phone cost price is Rs.50000/- and selling price is Rs.70000/-?

- A) Rs. 2000/- B) Rs. 10000/-
C) Rs. 20000/- (Correct) D) Rs. 50000/-

20. What is the matured amount for the deposit of Rs.5000/- and the simple interest earned for Rs.500/-?

- A) Rs.4500 (Incorrect) B) Rs.5500
C) Rs.6000 D) Rs.6500

21. What is the difference between the simple and the compound interest amount at 5% per annum for 2 years on a principal of Rs.20000/-?

- A) Rs.5 B) Rs.25 (Incorrect)
C) Rs.50 D) Rs.55

22. What is the retardation of a car moving with a velocity of 50 km/hr is brought to rest in 45 seconds?

- A) 0.40 m/sec^2 (Incorrect) B) 0.30 m/sec^2
C) 0.20 m/sec^2 D) 0.10 m/sec^2

23. How many watts for 1 horse power in metric system?

- A) 725.5 watts B) 735.5 watts (Correct)
C) 745.5 watts D) 755.5 watts

24. How many watts for 1 horse power in British system?

- A) 726 watts B) 736 watts
C) 746 watts (Correct) D) 756 watts

25. What denotes letter 'M' in MKS system? ಮೀಟರ್
ವ್ಯವಸ್ಥೆಯಲ್ಲಿ 'ಮ' ಅಕ್ಷರ ಏನನ್ನು ಸೂಚಿಸುತ್ತದೆ?

- A) Mile B) Meter (Correct)
C) Millimeter D) Micron