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Score: 15/50 (30.00%)

Code: 5544

1. What is the value of x if  $13+x=20$ ?

- A) 8 (Incorrect)                      **B) 7**  
 C) 9    D) 13

2. What is the value of x if  $(x+2)/2=19$ ?

- A) 38    B) 33  
 C) 35 (Incorrect)                      **D) 36**

3. What is the value of  $x^2-y^2$  if  $(x+y)=9$ ,  $(x-y)=4$ ?

- A) 13 (Incorrect)                      B) 65  
**C) 36**    D) 46

4. What is the area of the circle, if the circumference of the circle is 44cm?

- A)  $128\text{ cm}^2$                               B)  $130\text{ cm}^2$   
**C)  $154\text{ cm}^2$  (Correct)**                      D)  $129\text{ cm}^2$

5. What is the diameter of the circle, if the area of the circle is  $78.5\text{ cm}^2$ ?

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

6. Which is mineral insulator

- A) Glass (Incorrect)                      B) Quartz  
**C) Mica**    D) Porcelain

7. Which is the unit electrical power?

- A) Volts    B) Ohms  
**C) Watts (Correct)**                      D) Ampere

8. How many hours will take for a 100 watts bulb to consume 1 kwh energy?

<br>

W = 1 Kwh

<br>

P = 100 Watts

<br>

t = \_\_\_\_ Hours

- A) 10 hours (Correct)**                      B) 12 hours  
 C) 18 hours                                      D) 24 hours

9. Where the centre of gravity of a circle lies?

- A) At its centre**                              B) Any where on its radius  
 C) Any where on its circumference (Incorrect)                      D) Any where on its diameter

10. Which is thermosetting plastic?

- A) Vinyl polymers (Incorrect)                      B) Polystyrenes  
 C) Celluloid                                      **D) Melamine resins**

11. What is the tensile strain if a force of 3.2 KN is applied to a bar of original length 2800 mm extends the bar by 0.5 mm?

- A) 0.0001786**                                  B) 0.0001687 (Incorrect)  
 C) 0.0001867                                  D) 0.0001968

12. What is the safe stress if the ultimate stress of a material is  $35\text{ kg/mm}^2$  and factor of safety is 5?

- A) 0.143 (Incorrect)                      B) 0.7  
 C) 1.43    **D) 7**

13. Which standard schedule of rates to be considered for estimation?

- A) Standard schedule of rates of the last year                      **B) Standard schedule of rates of the average of the last 10 years (Incorrect)**  
 C) Standard schedule of rates of the average of last 5 years                      **D) Standard schedule of rates of the current year**

14. What is the term, for the details of materials, brand name, grade of quality, rating of current and voltage etc.?

- A) Drawing    **B) Specification of materials**  
 C) Raw materials                                  D) Price catalogue (Incorrect)

15. Which one is related to estimation of work?

- A) Bill of material**                              B) Packing  
 C) Information table (Incorrect)                      D) Hand book

16. Who prepares the cost of estimation?

- A) Operator    B) Quality Inspector  
**C) Estimator**                                      D) Draughts man (Incorrect)

17. What percentage of water absorbed by a good building stone?

- A) Less than 10%                                  B) Less than 20%

C) Less than 8% (Incorrect)    **D) Less than 5%**

18. What is the weight of the iron ball has volume of 250 cc and density 7.5 gm/cc?

- A) 1750 gram                      **B) 1875 gram (Correct)**  
C) 1975 gram                      D) 1785 gram

19. What is the total cost of painting of a class room including ceiling, if the size of length is 6m, breadth is 5m and height is 4m. (Painting + labour cost Rs.150/- per sq.m)

- A) Rs.15000/-                      B) Rs.16700/- (Incorrect)  
**C) Rs.17700/-**                      D) Rs.18700/-

20. What is the total cost of Air-conditioners installed in a college, 40 class room-each 1 Air-conditioner, Computer lab 5 Air- conditioners and conference hall 5 Air-conditioners (Cost of one air conditioner Rs.30000/- including installation)?

- A) Rs.10 lakhs (Incorrect)    B) Rs. 20 lakhs  
C) Rs. 12 lakhs                      **D) Rs. 15 lakhs**

21. Which affects the centre of gravity of the object

- A) Weight (Incorrect)            **B) Mass**  
C) Density                          D) Shape

22. What is the centre of gravity of a right circular cone from its base?

- A) h/2 (Incorrect)                B) h/3  
**C) h/4**                                D) h/5

23. What is the value in degree centigrade for 20 Degree F?

- A) -6.37 Degree C                B) -6.47 Degree C  
C) -6.57 Degree C                **D) -6.67 Degree C (Correct)**

24. What is the change in length per unit original length per degree rise in temperature is called?

- A) Co-efficient of friction        **B) Co-efficient of linear expansion**  
C) Co-efficient of superficial expansion (Incorrect)    D) Co-efficient of cubical expansion

25. What is term used for 2 x linear expansion?

- A) Co-efficient of friction        B) Co-efficient of linear expansion (Incorrect)  
**C) Co-efficient of superficial expansion**                D) Co-efficient of cubical expansion

26. What is called for the amount of heat required to raise the temperature of unit mass of a substance through 1 Degree C?

- A) Sensible heat (Incorrect)    B) Latent heat  
**C) Specific heat**                    D) Mixing of heat

27. Which insulating material is most widely used in refrigerators?

- A) Thermocole                      **B) Polyurethane**  
C) Glass wool (Incorrect)        D) Cork sheet

28. What is known for the temperature at which any solid melts into liquid?

- A) Boiling point                    **B) Melting point**  
C) Latent heat of fusion            D) Latent heat of vaporisation (Incorrect)

29. Which process produce equilibrium conditions?

- A) Annealing and Hardening    B) Normalising and Tempering (Incorrect)  
**C) Annealing and Normalising**                      D) Normalising and Tempering

30. What is the purpose of tempering a steel?

- A) To reduce the brittleness**                      B) To remove the ductility  
C) To increase the hardness        D) To increase the brittleness (Incorrect)

31. Which is example for second order lever?

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

32. What is called the ratio between the density of a substances density of water at 4 Degree Centigrade?

- A) Density (Incorrect)            **B) Specific gravity**  
C) Mass                                D) Weight

33. What is the density of aluminium?

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

34. What is the specific gravity of the metal, if the piece of metal weighs 150 grams in air and 125 grams in water?

- A) 6**                                      B) 10 (Incorrect)  
C) 15                                      D) 25

35. Which property of metal has its power of returning to its original shape after the applied force is released?

- A) Malleability                      B) Tenacity  
**C) Elasticity (Correct)**                D) Plasticity

36. What metals contained in brass alloy?

- A) Copper and aluminium        B) Copper and lead  
**C) Copper and zinc (Correct)**                      D) Copper and tin

37. Which rubber is used as insulator for power cables and control wires?

- A) Butyl  
B) Hypalone (Incorrect)  
**C) Silicon**  
D) Nitrite butadiene

38. Which alloy steel is using for making precious instrument?

- A) Silicon steel  
B) Manganese steel  
**C) Invar steel (Correct)**  
D) Vanadium

39. What is the diagonal of a square plate whose side is 28 cm?

- A) 39.29 cm  
B) 39.39 cm  
C) 39.49 cm  
**D) 39.59 cm (Correct)**

40. Which is the short form of profit and loss statement?

- A) P & L (Correct)**  
B) PR & LS  
C) PRO & LOS  
D) L & P

41. How the years is denoted in simple interest calculations?

- A) P  
B) I  
**C) n (Correct)**  
D) r

42. What is the maturity amount if Rs.20000 is deposited at 5% compound interest per annum for 2 years?

- A) Rs.22000  
B) **Rs.22050**  
C) Rs.22500  
D) Rs.25000 (Incorrect)

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

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

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

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

45. What is the equivalent unit for 1 horse power in metric system?

- A) 75 kg.m/sec**  
B) 76 kg.m/sec (Incorrect)  
C) 77 kg.m/sec  
D) 78 kg.m/sec

46. What is the work done in joules if a load of 15.5 kg is lifted through a height of 4.4 metres?

- A) 639 Joules  
B) 649 Joules  
C) 659 Joules  
**D) 669 Joules (Correct)**

47. What is the definition of ratio?

- A) Relation of two quantities of the same kind (Correct)**  
B) Relation of two quantities of the different kind  
C) Equality between two ratios  
D) Inequality between two ratios

48. Convert 52% into fraction?

- A) (9/25)  
B) (11/25)  
**C) (13/25) (Correct)**  
D) (17/25)

49. What is equal to  $\cos \theta$ ?

- A) Hypotenuse/Adjacent Side (Incorrect)  
B) **Adjacent Side/Hypotenuse**  
C) Opposite side/Hypotenuse  
D) Hypotenuse/Opposite Side

50. What is the height of the building if a ladder at 45 Degree touches the building placed 16 m from the base of the building?

- A) 15 m  
B) **16 m**  
C) 17 m  
D) 18 m (Incorrect)