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**Score: 18/50 (36.00%)**

**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

**D) 36 (Correct)**

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

A) 13

B) 65 (Incorrect)

**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)  $154\text{ cm}^2$**

D)  $129\text{ cm}^2$  (Incorrect)

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

A) 5 cm (Incorrect)

**B) 10 cm**

C) 15 cm

D) 5.5 cm

6. Which is mineral insulator

A) Glass

B) Quartz

**C) Mica**

D) Porcelain (Incorrect)

7. Which is the unit electrical power?

A) Volts

B) Ohms

**C) Watts**

D) Ampere (Incorrect)

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 (Incorrect)

C) Any where on its circumference

D) Any where on its diameter

10. Which is thermosetting plastic?

A) Vinyl polymers

B) Polystyrenes

C) Celluloid (Incorrect)

**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

B) 0.7

C) 1.43 (Incorrect)

**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 (Correct)**

C) Raw materials

D) Price catalogue

15. Which one is related to estimation of work?

**A) Bill of material (Correct)**

B) Packing

C) Information table

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%

**D) Less than 5% (Correct)**

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/- (Incorrect)

B) Rs.16700/-

**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

B) Rs. 20 lakhs (Incorrect)

C) Rs. 12 lakhs

**D) Rs. 15 lakhs**

21. Which affects the centre of gravity of the object

A) Weight

**B) Mass (Correct)**

C) Density

D) Shape

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

A) h/2

B) h/3

**C) h/4 (Correct)**

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 (Incorrect)

C) -6.57 Degree C

**D) -6.67 Degree C**

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

D) Co-efficient of cubical expansion (Incorrect)

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

B) Latent heat

**C) Specific heat**

D) Mixing of heat (Incorrect)

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

A) Thermocole

**B) Polyurethane (Correct)**

C) Glass wool

D) Cork sheet

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

A) Boiling point

**B) Melting point (Correct)**

C) Latent heat of fusion

D) Latent heat of vaporisation

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 (Correct)**

B) To remove the ductility

C) To increase the hardness

D) To increase the brittleness

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

**B) Specific gravity**

C) Mass (Incorrect)

D) Weight

33. What is the density of aluminium?

**A) 2.7 g/cm<sup>3</sup> (Correct)**

B) 3.7 g/cm<sup>3</sup>

C) 4.7 g/cm<sup>3</sup> (Incorrect)

D) 5.7 g/cm<sup>3</sup>

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

C) 15

D) 25 (Incorrect)

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

A) Malleability (Incorrect)

B) Tenacity

**C) Elasticity**

D) Plasticity

36. What metals contained in brass alloy?

A) Copper and aluminium (Incorrect)

B) Copper and lead

**C) Copper and zinc**

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  
**D) 39.59 cm (Correct)**  
C) 39.49 cm

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 (Incorrect)  
D) Rs.25000

43. 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

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

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

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 (Incorrect)  
B) 649 Joules  
C) 659 Joules  
**D) 669 Joules**

47. What is the definition of ratio?

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

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  
B) **Adjacent Side/Hypotenuse**  
C) Opposite side/Hypotenuse (Incorrect)  
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 (Incorrect)  
B) **16 m**  
C) 17 m  
D) 18 m