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**Score: 4/25 (16.00%)**

**Code: 1316**

1. What is the value of  $14x+3y+25x+2y$ ?

- A)  $17x + 27y$  (Incorrect)      B)  $16x + 28y$   
**C)  $39x + 5y$**                       D)  $44xy$

2. What is the value of adding  $(5x+2y)$ ,  $(4x - 7z)$  and  $(15z - 3y)$ ?

- A)  $9x - y + 8z$  (Correct)**      B)  $x - 9y + 8z$   
 C)  $x + 9y + 8z$                       D)  $9x + y - 8z$

3. What is the value of x, if  $3(2x - 4) = -4x + 28$  ?

- A) 4**                                      B) 8  
 C) 6                                      D) 12 (Incorrect)

4. What is the value of  $a^{2}+b^{2}$  if  $a+b=9$  and  $ab = 20$ ?

- A) 121                                    B) (-121) (Incorrect)  
**C) 41**                                    D) (-41)

5. What is the radius of a circle whose diameter is 44 cm?

- A) 44 cm                                **B) 22 cm (Correct)**  
 C) 23 cm                                D) 20 cm

6. What is the current?

$R = 50 \text{ Ohms}$   
 $220 \text{ Volts}$   
 $I = \text{_____Amps}$

- A) 4.1 Amps (Incorrect)      B) 4.2 Amps  
**C) 4.3 Amps**                      **D) 4.4 Amps**

7. What is the unit of strain?

- A)  $\text{Kg/cm}^2$                               B)  $\text{Newton/metre}^2$   
C) Metre (Incorrect)                **D) No unit**

8. What is the ratio of ultimate load to area of original cross section?

- A) Factor of safety                    B) Yield point (Incorrect)  
**C) Ultimate stress**                    D) Youngs modulus

9. What is the ratio of shear stress to shear strain?

- A) Modulus of elasticity              **B) Modulus of rigidity**

- C) Bulk modulus (Incorrect)      D) Yield point

10. What is the minimum permissible size of aluminium wire used in estimation?

- A) 1.5 sq.mm**                              B) 2.5 sq.mm (Incorrect)  
 C) 5 sq.mm                                D) 3.5 sq.mm

11. 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

12. What is the total cost to assemble 10 personal computer systems, spares cost as given for one system: 1 TB hard disc Rs.4500/-, Intel i3 mother board Rs.7000/-, SMPS Rs.2500/-, monitor Rs.6000/-, keyboard Rs.1000/-, other material cost (Switches, USB, Cabl

- A) Rs.275000/-**                              B) Rs.250000/- (Incorrect)  
 C) Rs.225000/-                              D) Rs.265000/-

13. Which instrument is used to measure heat?

- A) Calorie meter**                              B) Thermometer (Incorrect)  
 C) Pyrometer                                D) Barometer

14. What is the melting point of aluminium?

- A) 660 Degree C**                              B) 680 Degree C (Incorrect)  
 C) 670 Degree C                              D) 620 Degree C

15. What effort required to lift a load of 150 kg in a wheel and axle, if the velocity ratio is 2.5 and the efficiency of the machine is 75%?

- A) 70 kg                                      **B) 80 kg**  
 C) 90 kg                                      D) 100 kg (Incorrect)

16. Which one is non-metal?

- A) Mercury                                **B) Graphite**  
 C) Brass                                      D) Iron (Incorrect)

17. Which mechanical property of a metal offers resistance to elastic deformation in a cutting tool?

- A) Ductility                                B) Malleability (Incorrect)  
**C) Hardness**                                D) Toughness

18. What is the side of a square whose area is 625

