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Score: 19/20 (95.00%)

Code: 4180

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

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

2. What is the length of arc of the sector whose radius is 15 cm and the intended angle is 30 Degree?

- A) 7.85 cm (Correct)**                B) 7.25 cm  
 C) 6.75 cm                              D) 6.85 cm

3. What is the area of the sector, if the diameter is 12 cm and the angle is 60 Degree?

- A)  $18.0 \text{ cm}^2$                       B)  $17.75 \text{ cm}^2$   
 C)  $19.00 \text{ cm}^2$                       **D)  $18.84 \text{ cm}^2$  (Correct)**

4. What is the radius of the circle if the angle of sector is 90 Degree and the area of the circle is  $196 \text{ cm}^2$ ?

- A) 15.77 cm (Correct)**                B) 15 cm  
 C) 14.85 cm                              D) 14.95 cm

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 (Incorrect)            **D) 10.4 cm**

6. What is the area of the circle, whose diameter is 50 cm?

- A)  $1900 \text{ cm}^2$                       B)  $1950 \text{ cm}^2$   
**C)  $1962.5 \text{ cm}^2$  (Correct)**            D)  $1960 \text{ cm}^2$

7. What is the name of the region of a circle between any two point on the circumference?

- A) Arc                                      **B) Segment (Correct)**  
 C) Sector                                  D) Chord

8. What is the radius of the circle, whose circumference is 440 cm?

- A) 71.5 cm                              **B) 70 cm (Correct)**  
 C) 70.5 cm                              D) 72.2 cm

9. Which machine converts mechanical energy into electrical energy?

- A) Battery                                **B) Generator (Correct)**

C) Heater

D) Iron box

10. Which is the unit of current?

- A) Ampere (Correct)**                    B) Volt  
 C) Ohm                                    D) Watt

11. Which is the unit of resistance?

- A) Ampere                                B) Volt  
**C) Ohm (Correct)**                        D) Watt

12. What is the flow of electrons in any conductor?

- A) Voltage                                **B) Current (Correct)**  
 C) Resistance                            D) Power

13. Which property of a substance is opposing the flow of electric current?

- A) Current                                B) Voltage  
**C) Resistance (Correct)**                D) EMF

14. Which is very good conductor?

- A) Copper (Correct)**                    B) Cast iron  
 C) Wrought iron                        D) Steel

15. Which is mineral insulator

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

16. What is the total resistance if three resistances of 3 ohms, 9 ohms and 5 ohms are connected in series?

- A) 11 ohms                                B) 7 ohm  
**C) 17 ohms (Correct)**                D) 1/17 ohms

17. What is the total resistance if two resistances of 4 ohms and 6 ohms are connected in parallel?

- A) 10                                        **B) 2.4 (Correct)**  
 C) 5                                         D) 4

18. Which is same in series connection of resistors in a circuit?

- A) Current (Correct)**                    B) Voltage  
 C) Resistance                            D) Power

19. Which law states that at constant temperature the

current passing through a closed circuit is directly proportional to the potential difference and inversely proportional to the resistance?

- A) Ohm's law (Correct)**      B) Lenz's law  
C) Newton's law              D) Hooke's law
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20. What is the resistance?  
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$I = 11.5$  Amps

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$V = 380$  Volts

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$R = \underline{\hspace{2cm}}$  Ohms

- A) 13 ohms                              B) 23 ohms  
**C) 33 ohms (Correct)**              D) 43 ohms
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