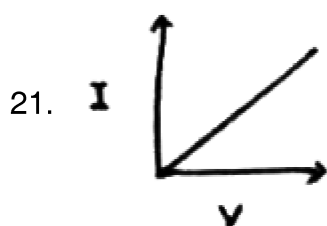


DAILY EXAM GENERAL SCIENCE - 1 KEY 25-04-2020

1. $R = \frac{3 \times 6}{3+6} = \frac{18}{9} = 2\Omega$ 2. Volt 3. a, c 4. d 5. \mathcal{E}
6. P-y, Q-x 7. P-y, Q-y 8. Rheostat 9. 3.6×10^6 10. $P = I^2 R$
11. Sodium (*Na*) and Manganese (*Mn*)
12. *Hg, Ag, Pt, Au* [Mercury, Silver, Platinum, Gold]
13. Froth floatation process.
14. c
15. Water and air (or) [Moisture and oxygen]
16. i-r, ii-p
17. P - 2Fe, Q - 3CO₂ (or) [P - 3CO₂, Q - 2Fe]
18. Calcination 19. d 20. a



22. In this case volume of wire, resistivity of the material remains constant.

So $R \propto l^2$

$$\therefore \frac{R_2}{R_1} = \left(\frac{l_2}{l_1}\right)^2 = \left(\frac{3l_1}{l_1}\right)^2 = 9$$

Hence $R_2 = 9R_1 = 27\Omega$

23. Potential difference (*v*), electric current (*i*) and resistance (*R*)
24. Because tungsten has higher resistivity value and higher melting point (3422°C)
25. $P = vI$
- $$\therefore I = \frac{P}{v} = \frac{15}{5} = 3A$$
26. "The potential difference between the ends of a conductor is directly proportional to current passing through it, at constant temperature."
27. The average speed with which the free electrons move in a conductor is known as drift speed.

28. $E = P \times t$
 $= 40 \times 5 \times 30$
 $= 6000 \text{ WH}$
 $= 6 \text{ kWH}$
 \therefore Electric bill = $6 \times 3 = 18 \text{ Rs.}$
29. Haematite – Fe_2O_3
Magnetite – Fe_3O_4
30. Roasting is a Pyrochemical process in which the ore is heated in the presence of oxygen or air below its melting point.
31. A mineral from which a metal can be extracted economically and conveniently is called "ore".
32. Flux is a material which combines with impurities (gangue) and converts them to a fusible material. This fusible material is called "slag".
33. The molten metal is stirred with logs of greenwood. The impurities are removed either as gases or they get oxidised and form slag over the surface of molten metal. This process is called poling.
34. Magnesite ($MgCO_3$); Epsom salt ($MgSO_4 \cdot 7H_2O$); and carnallite [$KCl \cdot MgCl_2 \cdot 6H_2O$]
35. Furnace is used to carry out Pyrochemical processes in Metallurgy.

ENGLISH - 2 KEY

- I. 3,5,2,4,1.
- II. a) avoid b) funny c) problem d) box.
- III. a) 3 b) 4 c) 1 d) 6
- IV. a. leisurely b. thought c. lethargy d. extended
- V. a) eo b) ou
- VI. a) able b) tion
- VII. 1. contentment 2. forehead.
- VIII. A) depict, represent, play
B) verb
- IX. Alliterative
1. Dilly_dally 2. chit_chat 3. ping-pong 4. pitter_patter.
Rhyming
1. super_duper 2. hanky_panky 3. nitty_gritty 4. teeny_weeny.
- X. A) she has three children to provide for.
B) He refused to give way on any of the points.
C) Give and take policy is always helpful.
D) the Supreme Court ordered to maintain status quo regarding reservations.
- XI F,E,D,A