



St. Xavier's Sr. Sec. School

Delhi-54

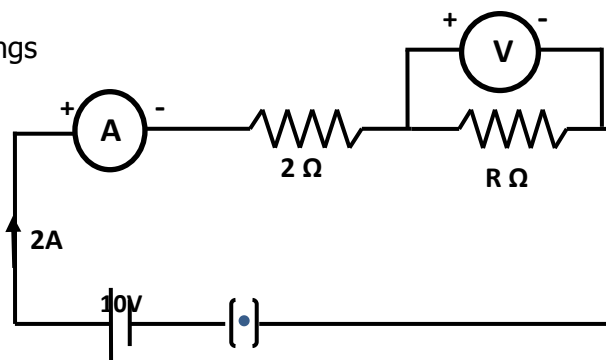
Class 10
16-5-2015

Formative Assessment I in SCIENCE

Time : 1 hr.
M. Mark:20

PHYSICS (M. Marks : 07; Time : 20 mts.)

1. Calculate the number of electrons constituting 5mC of Charge. (1)
2. Define 1Ω . What do you mean by the statement $\rho_{\text{Iron}} = 10 \times 10^{-8}\Omega\text{m}$. (1)
3. Why alloys are used in electrical heating devices? (1)
4. A copper wire has diameter 0.5mm and resistivity $1.6 \times 10^{-8}\Omega\text{m}$. What will be the length of the wire to make its resistance 7Ω ? How does 'R' change if diameter is halved? (2)
5. What do you mean by series connection of resistors? Calculate value of 'R', readings shown by the voltmeter and ammeter in the following circuit. (2)



CHEMISTRY (M. Marks : 07; Time : 20 mts.)

1. Define displacement reaction. Give an example. (1)
2. What is meant by oxidation reaction? Identify the oxidizing agent in the following reaction:
 $\text{CuO(s)} + \text{H}_2\text{(g)} \rightarrow \text{Cu(s)} + \text{H}_2\text{O(l)}$ (1)
3. Give reasons: (1)
 - a) We store silver chloride in dark coloured bottles.
 - b) Potato chips manufacturers fill the packet of chips with nitrogen gas.
4. Write the balanced chemical equation with state symbols for the following reaction:
Nitrogen gas is treated with hydrogen gas to form ammonia gas. (1)
5. Balance the following chemical reaction and identify the type of reaction: (3)
 - a) $\text{BaCl}_2 + \text{Al}_2(\text{SO}_4)_3 \rightarrow \text{BaSO}_4 + \text{AlCl}_3$
 - b) $\text{P}_4 + \text{O}_2 \rightarrow \text{P}_2\text{O}_5$
 - c) $\text{Pb}(\text{NO}_3)_2 \rightarrow \text{PbO} + \text{NO}_2 + \text{O}_2$

BIOLOGY (M. Marks : 06; Time : 20 mts.)

1. Differentiate between Autotrophic and heterotrophic nutrition. (any 2 points) (1)
2. Complete the following: (1/2+1/2)
 - a) Unused carbohydrate is stored in the form of _____ in plants.



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- b) Organism which breakdown food outside the body and then absorb it _____.
3. i) What controls the opening and closing of stomata?
ii) Draw a neat and labelled diagram of open stomata. (1x2=2)
4. a) Give three processes or steps which occur during photosynthesis.
b) Write the chemical equation representing Photosynthesis. (1½+½)

-X-X-X-X-X-X-