Dear Parents,

Session 2018-2019 is progressing quite well. We just had our 'Orientation Session' with Primary, Middle and Secondary schoolers parents and it was heartening to see your approach, co-operation and support. APS family extends gratitude for it.

A warm welcome to students who have joined our school this session. We stand committed to providing quality education to our children. The teachers follow a detailed plan of instruction that is guided by CBSE and AWES. SAMC is our pillar of strength as our teachers focus on holistic development of our students. We shall certainly continue to implement our 'Systems Approach' to support all students by using interventions to help each child make academic progress. Progress is best assured when student, parents and school are working towards same goal. It's like when every player is an active member, the team is sure to be the best and everyone is a winner. So let's strive to be all winners!

For Summer Break Assignments, practice sheets are devised to ensure revisions for coming assessment. Kindly go to the website: www.apsbinnaguri.org and follow these steps for the same

Steps to download:

i. Browse the website→ Home page (first page of the website)
ii. Then check the Bulletin Board→ link will be available.

OR

Home Page→ Click on 'APS News' option→ Choose Holiday Homework option from the dropdown menu.

We would also seek your co-operation to help lift up academics. We would welcome parents to offer their names for substitute facilitators/ teachers, judges for events round the year. Kindly e-mail at apsbinnaguri1@gmail.com or give your details at Front Desk.

We truly believe that an entire community is needed to empower our students to become successful citizens. I look forward to a great year and working with such an amazing community.

Awaiting your constructive suggestions.

ARMY PUBLIC SCHOOL BINNAGURI
SCIENCE PRACTICE SHEET - 1, SESSION 2018-19
CLASS: X

TIME: 90 MINUTES **MM: 40**

Date: **Duration: _____ to _____**

CHAPTER: 6 **VSA TYPE**

1. Digestive enzymes are also known as hydrolases.Why?
2. What are the different types of teeth in humans?
3. What is the primary requirement for pancreatic enzymes to act?
4. What will happen if warm water is added to an aquarium containing fishes?

SA I TYPE

5. Draw a labeled diagram of human excretory system.

6. The scheme shows some reactions of the compound Y. Identify Y.

Compound Y +(Excess HNO_3)----->Gas NaOH(aq)

+ Colourless solution ---------->

White ppt insoluble in excess NaOH

7. Why is the amount of gas collected in one of the test tubes while electrolyzing water double the amount of gas collected in the other. Name this gas.

SA II TYPE

8. Compare the alcoholic fermentation and lactic acid fermentation. What happens to the glucose in human beings after assimilation?
9. Write three points of differences between artery, veins and capillaries.

LA TYPE

10. Draw the sectional view of human heart and label the following parts given below:
    (i) Chamber where oxygenated blood from lung is collected.
    (ii) Largest blood vessel in our body.
    (iii) Muscular wall separating right and left chambers.
11. Name the parts involved in gaseous exchange in plants. Explain the function of each part in detail.
12. What do you understand by double circulation? Explain the functioning of heart with a labled diagram.
13. What do you understand by hemodialysis? Explain in detail.
14. Draw the structure and explain the functioning of a nephron. Explain mechanism of respiration in human beings.
15. Name the instrument used to measure blood pressure. How is it measured in human beings?

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ARMY PUBLIC SCHOOL BINNAGURI
SCIENCE PRACTICE SHEET - 2, SESSION 2018-19
CLASS: X

TIME: 90 MINUTES **MM: 40**

Date: **Duration: _____ to _____**

CHAPTER:1 VSA

1. Name two metals which do not corrode.
2. Why iron corrodes but aluminum does not?
3. What is the colour of barium sulphate precipitate in a reaction?
4. What is the valency of lead in lead nitrate?
5. Why do potato chips manufacturers fill the packet of chips with nitrogen gas .
6. Write an equation showing respiration in human being.

SA I TYPE

7. The scheme shows some reactions of the compound Y.Identify Y.

Compound Y +(Excess HNO_3)----->Gas NaOH(aq)

+ Colourless solution ---------->

White ppt insoluble in excess NaOH

8. Why is the amount of gas collected in one of the test tubes while electrolyzing water double the amount of gas collected in the other.Name this gas.

9. What happens when?
   (i) Copper carbonate is heated.
   (ii) Copper oxide is heated in atmosphere of hydrogen gas.

SAII TYPE

10. Balance the following equations and mention the type of reaction.
    (i) $KMnO_4$ ----------→K_2MnO_4 +MnO_2 +O_2
    (ii) NaOH + H_2SO_4---------→Na_2SO_4 +H_2O
    (iii) MnO_2 +HCl---------→ $MnCl_2$ + Cl_2+ H_2O
11. Which among the following exothermic or endothermic in nature
    a) Decomposition of ferrous sulphate
    b) Dilution of sulphuric acid.
    c) Dissolution of sodium hydroxide in water.
    d) Dissolution of ammonium chloride in water.

LA TYPE

12. A metal nitrate A on heating gives yellowish brown coloured metal oxide along with brown gas B and a colourless gas C. Aqueous solution of A on reaction with potassium iodide forms a yellow ppt of compound D. Identify A B C D .Also identify the types of both the reactions. Metal present in A is used in alloy which is used for soldering purpose.

13.(a) What is meant by a photo decomposition reaction? Give one example.

(b) A solution of substance X is used for testing carbon- di-oxide .Identify X. What will be its reaction with carbon di oxide? Write balanced chemical equation for the same.

(c) What happens when copper metal is added to silver nitrate solution? Give balanced equation for the chemical reaction taking place. Predict which is more reactive copper or zinc?

14. Explain the reasons:

(i) A teacher took few crystals of sugar in a dry test tube and heated the test tube over flame. The colour of sugar turned black.

(ii) Blue crystals of copper sulphate on heating in a dry test tube become colourless.

(iii) Green colour of $FeSO_4.7H_2O$ crystal on heating, change colour. 4. Name two metals which do not corrode.

15. Write five equations to show redox reaction. Explain oxidizing and reducing agent in them.

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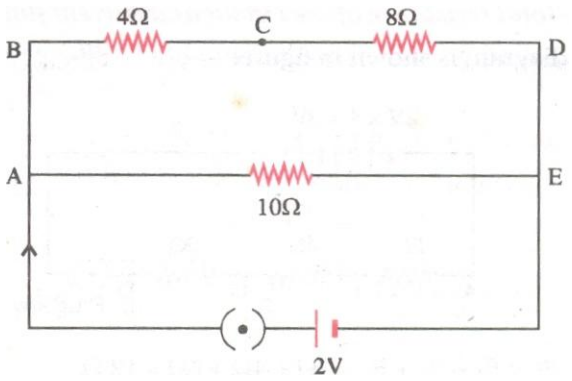
ARMY PUBLIC SCHOOL BINNAGURI
SCIENCE PRACTICE SHEET 3, SESSION 2018-19
SUB: PHYSICS
CLASS: X

CHAPTER: ELECTRICITY

1. Name the device used to measure electric current. How is it connected in a circuit?
2. What do you mean by potential difference?
3. Name the device used to measure potential difference between two points. How is it connected in a circuit?
4. What is the effect of temperature on the resistance of a conductor?
5. State Joule's Law of heating.
6. Define electric power. Give its SI unit.
7. What is the commercial unit of electrical energy?
8. 24 J of work is done in moving a charge of 6 C between two points. Calculate the potential difference between the two points.
9. We have a copper wire of resistivity ρ. This wire is pulled so that its length is doubled. Find the new resistivity of the wire.
10. State ohm's law. Also express it graphically.
11. Sate the factors on which resistance depends.
12. We have a copper wire of resistance R. this wire is pulled so that its length is doubled. Find the new resistance of the wire.
13. Why is tungsten used almost exclusively for filament of electric lamps?
14. Why copper and aluminium wires are usually employed for electricity transmission?
15. Which material is used for making filaments of electric bulbs? Why?
16. Manganin and constantan wires are used to make standard resistance coils. Why?2
17. Calculate the resistance of a copper wire of length 60 cm and diameter 2 mm. the resistivity of copper is $1.7 * 10^{-8}$ ohm-m.
18. Why are the conductors of electric heating devices made of an alloy rather than a pure metal?
19. A battery of 6 V is connected across an unknown resistance. If a current of 1.5 mA flows in the resistance, find the value of the unknown resistance.
20. How can three resistors of resistances 2 ohm, 3 ohm and 6 ohm be connected to get a resistance of (i) 4 ohm and (ii) 1 ohm.
21. A wire of resistance 20 ohm is bent in the form of a circle. What is the effective resistance between two points at the ends of any diameter of the circle?
22. What are the advantages of connecting electrical devices in parallel with the battery instead of connecting them in series?
23. What is the (i) highest and (ii) lowest total resistance that can be secured by combinations of four coils of resistances 8Ω, 12 Ω, 24 Ω and 32 Ω?
24. An electric bulb is rated 100 W at 220 V. Find the resistance of the bulb. You are given a battery of four cells each of 2 V, a 2 ohm resistor, 4 ohm resistor and 6 ohm resistor, a plug key and am ammeter. Connect all these in series. Also connect a voltmeter across the 4 ohm resistor. Draw the circuit diagram. Find the voltmeter and ammeter reading.
25. An electric circuit is shown in the figure. Find (i) electric current flowing through the arms CD, BC and AE, (ii) potential difference across AE, BC and CD.


4Ω
C
8Ω
B
D
A
E
10Ω
2V

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