Diwali Assignment (2016-17)
GRADE -8
(Biology)

| NAME: | Date: |
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| Roll No: |  |

Given below is a diagram of the human heart. Draw it in your notebook and label the following parts.

1. right auricle
2. left ventricle
3. tricuspid valve
4. bicuspid valve
5. pulmonary artery
6. pulmonary veins


Identify the figure and label parts a-c.


The diagram illustrates the structure of a flower.

1. Identify the parts labelled a-e.
2. Which part produces pollen grains?
3. Which part receives pollen for pollination?

Some of the parts of the female reproductive system are marked incorrectly. Write the correct names in the space provided.

In the figure given alongside label the glands marked a-e and name the hormones secreted by them.

Identify the diagram given alongside.
L. Label the parts marked a-e.
2. What is the function of the part labelled e?


## DIWALI VACATION

Chemistry Assignment

## NAME:

Roll No: Date: 06/11/2016
Q.1Write the formulae with the help of hit and trial method of the compounds.

1. Hydrogen chloride
2. ammonium chloride
3. calcium chloride
4. Aluminium chloride
5. Zinc Chloride
6. Magnesium chloride
7. Copper chloride
8. Sodium chloride
9. lead (II) chloride
10. Iron (II) chloride
11. Iron (III) chloride
12. Cobalt chloride
13. Silver chloride
14. Mangnese chloride
15. Mercury chloride
16. Tin (IV) Chloride
17. Tin (II) chloride
18. Potassium chloride
19. Phosphorous (III) chloride
20. Carbon tetrachloride

Sulphates
21. Sodium sulphate
22. Calcium sulphate
23. Copper sulphate
24. Magnesium sulphate
25. Aluminium sulphate
26. lead (II) sulphate
27. Potassium sulphate
28. Ammonium sulphate
29. zinc sulphate
30. Sulphuric acid

Hydroxides
31. Iron (II) hydroxide
32. Iron (III) hydroxide
33. Lead (II) hydroxide
34. Calcium hydroxide
35. zinc hydroxide
36. Copper hydroxide
37. Ammonium hydroxide
38. Sodium hydroxide
39. Potassium hydroxide
40. Aluminium hydroxide

## Carbonates

1. Sodium carbonate
2. Potassium carbonate
3. copper (I) carbonate
4. Aluminium carbonate
5. Lead (II) carbonate
6. Calcium carbonate
7. Sodium hydrogen carbonate
8. Potassium hydrogen carbonate
9. zinc carbonate
10. Carbonic acid

Nitrates
11. Sodium nitrate
12. Potassium nitrate
13. Copper nitrate
14. Ammonium nitrate
15. Lead (II) nitrate
16. Nitric acid
17. Ammonia
18. silver nitrate
19. Calcium nitrate
20. Magnesium nitrate
21. Oxides
22. Sodium oxide
23. Potassium oxide
24. Copper oxide
25. Magnesium oxide
26. lead (II) oxide
27. Aluminium oxide [alumina]
28. Silicon dioxide [Silica]
29. Iron (II) oxide
30. Iron (III) oxide
31. Mangnese (IV) Oxide
32. Calcium oxide [ Quick lime]
Q. 2 Write the formulae of followings.
33. Hydrochloric acid
34. Sulphuric acid
35. Nitric acid
36. Carbonic acid
37. Sulphurous acid
38. Phosphoric acid
39. Acetic acid
40. Sodium thiosulphate
41. sodium zincate
42. potassium aluminate
43. Water
44. common salt
45. Blue vitriol
46. Methanol
47. Methane
48. Butane
49. Methyl mercaptan
50. Glucose
51. Oxalic acid

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Name :
Worksheet (Mathematics)
Roll No :
(Grade : 8)
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Q.1) Find the Simple interest on Rs. 7300 from $11^{\text {th }}$ may, 2005 to $14^{\text {th }}$ September , 2005 at 6\% per annum.
Q.2) What sum of money will yield an interest of Rs. 138.75 at $8 \%$ per annum in 3 years and 1 month?
Q.3) In what time will Rs. 72 become Rs. at $6_{4}^{1} \%$ p.a. simple interest?
Q.4) Find the amount and compound interest on a sum of Rs. 15625 at 4\% per annum for 3 years compounded annually .
Q.5) Richa invested Rs. 93750 at $9.6 \%$ per annum for 3 years and the interest is compounded annually, calculate the interest for the $3^{\text {rd }}$ year.
Q.6) Subtract: $x^{2}-y^{2}-z^{2}$ from the sum of $2 x^{2}+3 y^{2}-z^{2}$ and $4 x^{2}-3 y^{2}+5 z^{2}$.
Q.7) Multiply: $3 p q+4 p^{2}+3 q-5 r^{2}$ by $6 p q r^{2}$.
Q.8) Multiply $\left(x^{2}+x y-y^{2}\right)$ by $\left(x^{2}-x y+y^{2}\right)$
Q.9)Divide :(12 $\left.x^{2}+7 x y-10 y^{2}\right)$ by $(3 x-2 y)$
Q.10) Divide : $-21+71 x-31 x^{2}-24 x^{3}$ by $(x+2)$

Solve the following equations:
Q.11) $16-2(3 y+5)=4(y-2)$
Q.12) $7 m-4(m+6)=7(m-8)+4$
Q. 13) prince is 23 years older than Rishi. 9 years ago Prince`s age was five times the age of the Rishi. Find their ages.
Q.14) One number is 6 more than another and its square is 66 more than the square of the smaller number. What are the numbers ?
Q.15) The larger of two numbers is 20 more than the smaller and the sum of two numbers is 18 . Find the numbers.

Solve the following systems of equations :
Q.16) $6 x+10 y=10$

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11 x+20 y=15
$$

Q.17) $2(p+q)=3(q-1)$

$$
4(p+q)=q+1
$$

Q.18) Two numbers are differ by 8 . Four times the larger number is 2 more than six times the smaller number. Find the numbers.
Q.19) The sum of the digits of a two digit number is 10 . The number obtained by interchanging te two digits exceeds the given number by 36 . Find the number.
Q.20) 6 apples and 12 plums together cost Rs 25 and 8 apples and 4 plums cost Rs 22. Find the cost of 1 apple and 1 plum.
Q.21) Graph the equation $4 \mathrm{x}-\mathrm{y}=10$
Q.22) Graph the equation $3 x-8 y=16$

Solve the system :
Q.23) $4 x-6 y=-12$
$4 \mathrm{x}-2 \mathrm{y}=4$
Q.24) $6 x+2 y+2=0$

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4 x-6 y+16=0
$$

Q.25) $y=8 x+8$
$6 y=-2 x-30$

| Name : $\quad$ DIWALI VACATION WORKSHEET |  |  |
| :--- | :--- | :--- |
| Roll No : $\quad$ Grade : 8 | Sub:Physics | Date :27/10/2016 |

## - Solve the following problems:

1. 2000 calories of heat is supplied to 200 g of water. Find the rise in temperature where SHC of water is given as $1 \mathrm{cal} / \mathrm{g}^{0} \mathrm{C}$.
2. A lump of iron at $170^{\circ} \mathrm{C}$ is cooled to $20^{\circ} \mathrm{C}$. If the mass of iron is 150 g and the heat radiated is 10350 J , Find the SHC of iron.
3. 500 g of water at $100{ }^{\circ} \mathrm{C}$ is mixed with 300 g of water at $30{ }^{\circ} \mathrm{C}$. Find the final temperature of the mixture.
4. Calculate SLH of fusion of a solid if 20 g of it requires 8400 J of heat energy for melting.
5. Calculate the heat energy liberated by 45 g of steam so as to form water at $100{ }^{\circ} \mathrm{C}$ and SLH of vaporization of water is $2260 \mathrm{~J} / \mathrm{g}$.
6. 60000 J of heat raises the temperature of 4 kg of a liquid from $10^{\circ} \mathrm{C}$ to $15{ }^{\circ} \mathrm{C}$. Find the heat capacity of the liquid.
7. Calculate the final temperature of mixture when 20 kg of water at $25^{\circ} \mathrm{C}$ is mixed with 5 kg of water at $80^{\circ} \mathrm{C}$.
8. A kettle cools from $80{ }^{\circ} \mathrm{C}$ to $45^{\circ} \mathrm{C}$ when it loses 2100 J of heat.
(a) What is its heat capacity?
(b) How much heat would be required to raise its temperature from $20{ }^{\circ} \mathrm{C}$ to $105{ }^{\circ} \mathrm{C}$.
9. The SHC of oil is $0.45 \mathrm{cal} / \mathrm{g}{ }^{0} \mathrm{C}$. Find the amount of heat lost when 2 kg of the oil cools from $100{ }^{\circ} \mathrm{C}$ to $40{ }^{0} \mathrm{C}$
10. How much heat energy is required to bring 0.8 kg of water at $30^{\circ} \mathrm{C}$ to its boiling point?
11. Calculate the mass of copper that requires 2730 J of heat to raise its temperature from $50{ }^{\circ} \mathrm{C}$ to $70{ }^{\circ} \mathrm{C}$. the SHC of copper is $390 \mathrm{~J} / \mathrm{kg}^{0} \mathrm{C}$.
12. 400 g of water at $90^{\circ} \mathrm{C}$ is mixed with 200 g of cold water at a certain temperature. The equilibrium temperature of the mixture is $60^{\circ} \mathrm{C}$. What was the initial temperature of cold water.
13. Calculate the amount of heat required to melt 500 g of ice at $0^{\circ} \mathrm{C}$.
14. Calculate the amount of heat required to melt 100 g ice at $-10^{\circ} \mathrm{C}$ and from water at $10^{\circ} \mathrm{C}$.
15. 200 g of steam condenses to form water at $100^{\circ} \mathrm{C}$ Calculate the heat released during the process.
