

The City School
PAF Chapter



Comprehensive Worksheet
December 2019

SCIENCE
Class – 7

Candidate Name: _____	
Index Number: _____	Section: _____
Branch/Campus: _____	Date: _____
Maximum Marks: 100	Time Allowed: 1 hour 30 minutes

INSTRUCTIONS:

- ❖ Write your name, index number, section, branch/campus and date clearly in the space provided.
- ❖ Read and follow the instructions of the given questions.
- ❖ Answer all the questions in the space provided.
- ❖ Select only one answer when made to choose, otherwise no marks will be given.
- ❖ Check your answers before handing your paper in.
- ❖ Marks for each section are shown below.
- ❖ This paper consists of 09 printed pages including the cover page.

.....**For Examiner's use only**.....

Sections	Section – A (60 Marks)				Section – B (40 Marks)				Total
Question	1	2	3	4	1	2	3	4	
Max. Marks	20	10	10	10	10	15	09	16	100
Marks Obtained									

Percentage	
Grade	

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SECTION A

Q.1. Choose the correct answer:-

[/20]

1. **magnesium reacts with oxygen to form magnesium oxide. Which of the following statements is true about this chemical reaction?**
 - A. An element combines with another element to form a compound.
 - B. An element combines with a compound to form another compound.
 - C. A compound combines with another compound to form a new compound.
 - D. A compound is broken down into simpler substances.

2. **A _____ solution is formed when maximum amount of solute dissolves in a given amount of solvent.**
 - A. concentrated solution
 - B. saturated solution
 - C. dilute solution
 - D. super saturated solution

3. **Which of the following is a compound?**
 - A. Hydrogen
 - B. Potassium
 - C. chalk
 - D. Chlorine

4. **Solubility is the maximum amount of solute dissolved in _____ of a solvent at particular temperature.**
 - A. 100 g
 - B. 1000 g
 - C. 10 g
 - D. 1 g

5. **Strong acids are _____ and they taste _____.**
 - A. Corrosive, sour
 - B. Litmus, bitter
 - C. Red, corrosive
 - D. Blue, sweet

6. **Alkali turns _____**
 - A. Blue litmus red
 - B. Red litmus blue
 - C. Blue litmus white
 - D. Red litmus green

7. **A _____ is made up of two or more elements and/or compounds which are not chemically combined.**
 - A. Compound
 - B. Element
 - C. Indicator
 - D. mixture

8. _____ is used to separate components of a mixture.
- A. Evaporation
 - B. Distillation
 - C. Filtration
 - D. Chromatography
9. A solution in which water is a solvent is known as _____ solution.
- A. Aqueous
 - B. Dilute
 - C. Saturated
 - D. Concentrated
10. Air consists of oxygen, carbon-dioxide and noble gases dissolved in _____ gas.
- A. Hydrogen
 - B. Nitrogen
 - C. Helium
 - D. Sulphurdioxide
11. _____ controls the movement of materials into and out of the living cell.
- A. Cell wall
 - B. Nucleus
 - C. Cytoplasm
 - D. Cell membrane
12. The largest human cell in terms of volume is _____.
- A. Red blood cell
 - B. Guard cell
 - C. Egg cell
 - D. Nerve cell
13. Brain is mainly composed of _____ and _____ tissues.
- A. Muscle, epithelial
 - B. Nerve, connective
 - C. Epithelial, dermal
 - D. Ground, muscle
14. The pH value of water is _____.
- A. 2
 - B. 7
 - C. 12
 - D. 14
15. Forces can be measured using _____.
- A. Spring balance
 - B. Measuring cylinder
 - C. Universal indicator
 - D. pH meter

16. Weight of an object is the _____ acting on it.

- A. Frictional force
- B. Magnetic force
- C. Gravitational force
- D. Upthrust

17. A _____ is a natural satellite which revolves around a planet.

- A. Sun
- B. Asteroid
- C. Star
- D. Moon

18. What is caused by the revolution of the Moon around the Earth?

- A. Month
- B. Day
- C. Seasons
- D. Lunar eclipse

19. Giving a moving car toy, a push in the same direction of its motion, will cause:

- A. The car to slow down
- B. The car to move faster
- C. The car to stop
- D. The car to change its direction

20. Which planet has the longest year?

- A. Jupiter
- B. Mercury
- C. Venus
- D. Neptune

Q2. Fill in the blanks.

[/10]

- a. Solubilities of gases decrease when temperature _____.
- b. Brass and steel are the examples of mixtures called _____.
- c. The asteroid belt lies between the planets _____ and _____.
- d. A difference in boiling points is used to separate two or more liquids by _____.
- e. A _____ cell contains many chloroplasts which contain chlorophyll.
- f. The stronger the force applied, the _____ the spring stretches.
- g. Cells that perform a same function are grouped together to form a _____.
- h. Vinegar contains _____ acid.

i. A red blood cell contains a red pigment called _____ that helps to transport oxygen.

j. In human beings, _____ system supports the body and gives it a shape.

Q3. Match column A with B and write the correct answer in column C.

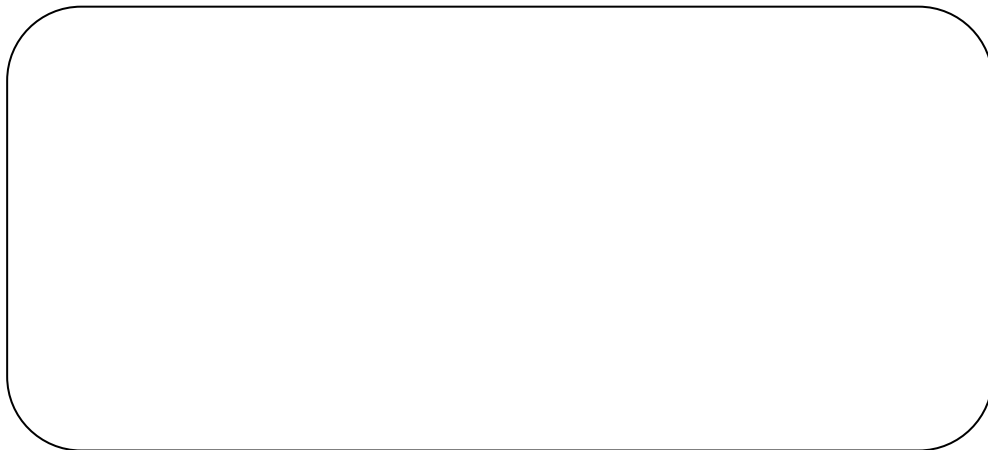
[/10]

COLUMN A	COLUMN B	COLUMN C
1. An asteroid	a. Mercury	
2. A star	b. Non luminous object revolving around a sun	
3. A planet	c. Huge mass of hot gases	
4. A moon	d. Unmanned space crafts used to explore celestial bodies	
5. Artificial satellite	e. Hubble space telescope	
6. Cause of day and night	f. Jupiter	
7. Cause of a month	g. Natural satellite revolves around a planet	
8. Largest planet	h. Revolution of moon around the Earth	
9. Planet without an atmosphere	i. Huge rock revolving around a star	
10. Space probes	j. Rotation of the Earth about its axis	

Q4a. Draw and label different parts of:

[/6]

1. Plant cell



2. Animal cell



Q4b. Match each of the words, in the box, to the following statements.

[/4]

Vascular tissues	Palisade cell	ground tissues	Connective tissues
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1. Helps in photosynthesis, physical support and food storage: _____
2. Xylem and phloem: _____
3. Joins all parts of an organism: _____
4. Contains chloroplast: _____

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SECTION B

Q1a. Write two similarities and two differences between plant cell and an animal cell.

[/2]

Q1b. How cytoplasm and vacuole are different in plant and an animal cell?

[/4]

Q1c. Explain what each of the following words mean by writing a sentence to show its meaning. [/4]

i. DNA

ii. Cell division

iii. **Connective tissue**

iv. **Unicellular organism**

Q2a. Write down the names of the following elements given their chemical symbols. [/5]

i. N: _____

ii. S: _____

iii. He: _____

iv. Ca: _____

v. Zn: _____

Q2b. Write down the names of elements involved in the formation of the following compounds. [/5]

i. polythene: _____

ii. sugar : _____

iii. Chalk: _____

iv. Dry ice: _____

v. sand: _____

Q2c. Which method would you use to separate each of the following? [/5]

i. Separate food colourings in chocolate candies _____

ii. Separate diesel from crude oil _____

iii. Iron fillings from Sulphur _____

iv. Oxygen from air _____

v. Separate salt from sand _____

Q3a. When Nitric oxide and Oxygen are combined, a new substance nitrogen dioxide is formed

i. Write word equation for the above chemical reaction. [/1]

ii. Is nitrogen dioxide an element or a compound? Explain. [/2]

Q3b. The following word equations represents chemical reactions:

a. Iron + Sulphur \longrightarrow iron sulphide

b. Ammonia + hydrogen chloride \longrightarrow ammonium chloride

c. copper carbonate $\xrightarrow{\text{heat}}$ copper oxide + carbon dioxide

i. Which word equation shows the formation of a compound from: [/2]

a. two compounds: _____

b. two elements: _____

ii. Which word equation above shows breaking of a compound into simpler substance. [/1]

iii. Write the word equation of the following: [/3]

a. Dilute nitric acid + calcium carbonate \longrightarrow

b. Dilute hydrochloric acid + sodium hydroxide \longrightarrow

Q4a. Answer the following questions

i. Write down at least three advantages of friction. [/3]

ii. An object that floats in water weighs 20 N in air. [/3]

a. What is the weight of the object in water? _____

b. What is the Upthrust acting on the object in water? _____

c. What is the weight of the water displaced by the object? _____

iii. A man is coming down with a parachute.

[/3]

a. Name the forces acting on the parachute.

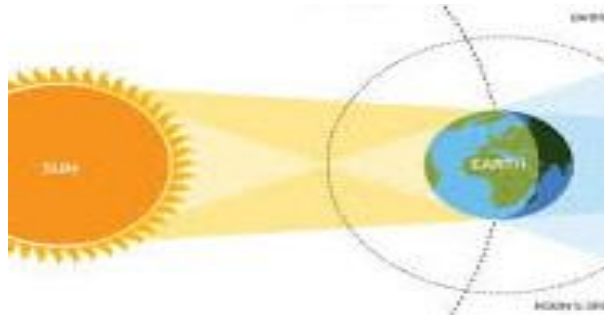
b. What can you say about the size of the forces?

c. Draw and label arrows to represent the forces acting on the ball. _____



Q4b. Study the diagram below.

[/3]



i. What phenomenon is illustrated by the diagram?

ii. What phase is the Earth at during this phenomenon?

iii. Does this phenomenon occur at night or in the day?

Q4c. Why do Earth support any form of life?

[/1]

Q4d. Why do stars appear to move?

[/1]

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