

# The City School

Unified End of Year Examinations 2017-18



SCHOOL  
NAME

INDEX  
NUMBER

--	--	--	--	--

SCIENCE  
CLASS 8

May 2018  
2 hours

## READ THESE INSTRUCTIONS FIRST

- Write your index number and school/campus clearly in the space provided.
- Carefully read and follow the instructions given for each question.
- Answer **all** question in the spaces provided.
- Select only one answer when made to choose, otherwise no mark will be given.
- Check your answer paper before you hand it in.
- Marks for each section are shown below.

----- For Examiner's use only -----

Section	Section A (50) Objective			Section B (50) Subjective								
Question No.	1	2	3	4	5	6	7	8	9	10	11	TOTAL
Max. Marks	30	10	10	08	06	06	03	04	05	09	09	100
Marks Obtained												

Percentage		Grade	
------------	--	-------	--

Invigilated by: \_\_\_\_\_ Marked by: \_\_\_\_\_ Marks tallied by: \_\_\_\_\_

Section A	Objective	Marks 50
-----------	-----------	----------

**Q.1 Multiple Choice Questions**

[ ]/30

- i. **In aerobic cellular respiration the waste products formed are;**
  - A. Oxygen & Hydrogen
  - B. Water & Carbon dioxide
  - C. Oxygen & Glucose
  - D. Carbon dioxide & Nitrogen
  
- ii. **Left atrium receives oxygenated blood from**
  - A. Right atrium
  - B. Lungs
  - C. Right ventricle
  - D. Right atrium
  
- iii. **More than half of total blood volume is the**
  - A. Red blood cells
  - B. Plasma
  - C. Platelets
  - D. White blood cells
  
- iv. **Platelets in blood help in**
  - A. Transporting materials
  - B. Rejuvenating Vessels
  - C. Clotting of blood
  - D. Purifying the blood
  
- v. **Bronchioles are further sub division of**
  - A. Trachea
  - B. Alveoli
  - C. Nostril
  - D. Bronchi

- vi. **The study of interactions between organisms and their environment is called** .
- A. Ecology
  - B. Sociology
  - C. Microbiology
  - D. Geology
- vii. **Animals like earthworms and millipedes which feed on decaying matter are called**
- A. Carnivore
  - B. Herbivore
  - C. Detritivores
  - D. Omnivore
- viii. **An Octopus can change its colour to blend itself in its surrounding. It is an example of**
- A. Mimicry
  - B. Camouflage
  - C. Symbiosis
  - D. Predation
- ix. **The natural home of an organism is its**
- A. Environment
  - B. Habitat
  - C. Community
  - D. Ecosystem
- x. **A collection of multiple food chains is known as**
- A. Food connection
  - B. Food web
  - C. Food network
  - D. Food links

- xi. **Right sequence of a food chain is**
- A. Grass, cheetah, rabbit
  - B. Rabbit, grass, cheetah
  - C. Cheetah, rabbit, grass
  - D. Grass, rabbit, cheetah
- xii. **Microbes that break down the complex organic matter into simple substances like carbon, nitrogen, water etc. are**
- A. Producers
  - B. Decomposers
  - C. Consumers
  - D. Scavengers
- xiii. **Links other than the producers in a food chain are known as**
- A. Consumers
  - B. Scavengers
  - C. Detritivores
  - D. Decomposer
- xiv. **The melting of the Earth's ice caps can cause**
- A. Extinction of species.
  - B. Destruction of habitats.
  - C. A rise in sea level.
  - D. All of the above.
- xv. **\_\_\_\_\_ is formed inside the Earth's crust and has large crystals due to slow cooling**
- A. Pumice
  - B. Basalt
  - C. Obsidian
  - D. Gabbro

- xvi. **Quartzite is a metamorphic rock transformed from**
- A. Granite
  - B. Limestone
  - C. Sandstone
  - D. Shale
- xvii. **Basalt columns are formed as a result of?**
- A. Earthquakes
  - B. Sand storms
  - C. Volcanic eruptions
  - D. None of the above
- xviii. **Limestone is very rich in**
- A. Calcium Oxide
  - B. Carbonates
  - C. Calcium carbonate
  - D. Magnesium carbonate
- xix. **A crystalline or glassy rock formed when magma or lava cools down and solidifies is called**
- A. Sedimentary rock
  - B. Metamorphic rock
  - C. Igneous rock
  - D. All of the above
- xx. **Number of vibrations in a second is called**
- A. Pitch
  - B. Frequency
  - C. Amplitude
  - D. Infrasound

- xxi. Sounds having frequencies above 20,000Hz are called**
- A. Infrasound
  - B. Ultrasound
  - C. Mega sound
  - D. Micro sound
- xxii. If we tighten the strings of an instrument the pitch will be**
- A. Higher
  - B. Lower
  - C. Constant
  - D. Remains the same
- xxiii. A thin sheet of membrane which is stretched tightly across end of ear canal is called**
- A. Pinna
  - B. Ear drum
  - C. Hammer
  - D. Cochlea
- xxiv. Regions where molecules are compressed are called**
- A. Rarefactions
  - B. Compressions
  - C. Digressions
  - D. Progressions
- xxv. A force which a magnet exerts is called**
- A. Magnetic force
  - B. Magnetic field
  - C. Magnetic circle
  - D. Magnetic energy



- xxvi. The alloy known as Alnico is composed of:**
- A. Nickel
  - B. Cobalt
  - C. Aluminum
  - D. All of them
- xxvii. A material which can easily be magnetized and demagnetized is**
- A. Iron
  - B. Steel
  - C. Copper
  - D. Silver
- xxviii. The North pole of a freely suspended magnet will always point towards the**
- A. Geographical South
  - B. Magnetic South
  - C. Geographical West
  - D. Magnetic North
- xxix. The arrow on magnetic field lines shows them flowing in which direction?**
- A. From south to north
  - B. From north to south
  - C. From left to right
  - D. From right to left
- xxx. What do like poles do when they are brought closer?**
- A. They attract each other
  - B. They repel each other
  - C. Neither attracts nor repel
  - D. All of the above

**Q.2** Write whether these statements are TRUE or FALSE. If a statement is false rewrite it correctly: [    /10]

i. The waste product of aerobic cellular respiration is lactic acid

---

ii. The relationship between a strangler fig and host tree is called mutualism

---

iii. A food chain starts with producer

---

iv. Reforestation is an example of clearing of trees by cutting or burning trees.

---

v. Rapid cooling of lava forms glassy igneous rocks with no crystals like obsidian.

---

vi. Marble, slate and gneiss are examples of sedimentary rocks

---

vii. Amplitude is the amount of energy in a sound wave which corresponds to the height of the sound wave.

---

---

viii. Short and thin strings produce high pitch sounds while thick strings produce low pitch sounds.

---

---



ix. Non-magnetic materials can magnetise to become magnets.

---

x. The magnetic force exerted by a magnet gets weaker as we move farther away from the magnet.

---

---

**Q.3 Match the column A, with column B and write the answer in column C. [\_\_/10]**

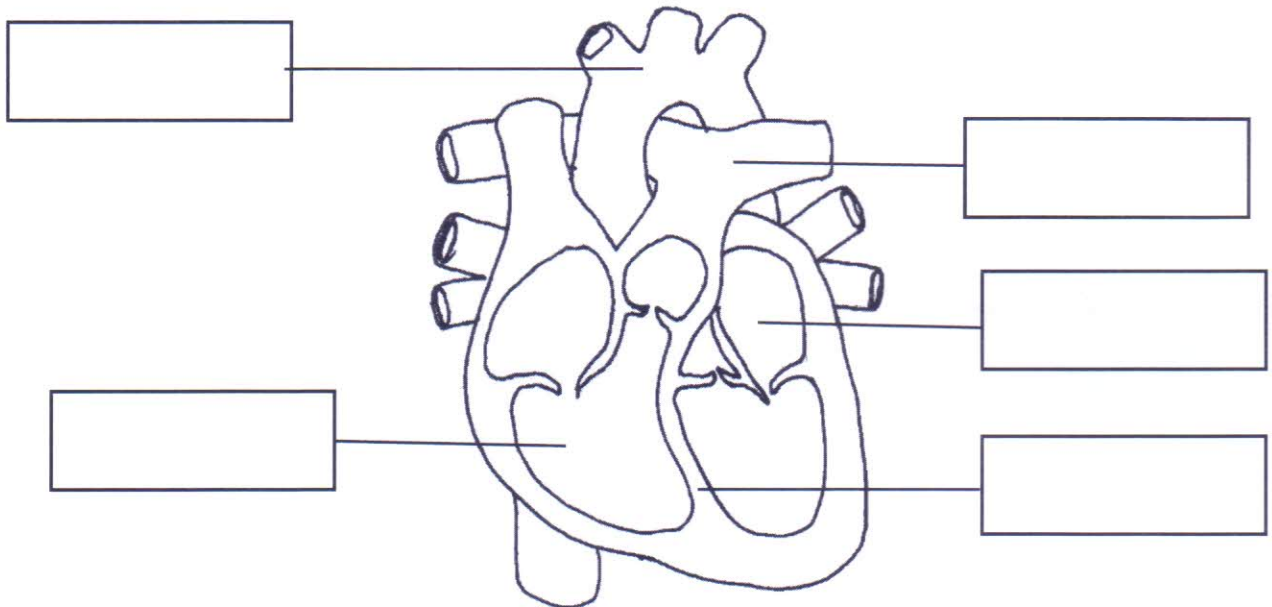
Column A	Column B	Columns C
1. Septum	a. a physical process which helps in gaseous exchange between the body and the atmosphere	1. ____
2. Breathing	b. organisms which feed directly on the producer.	2. ____
3. Community	c. the muscular wall between two sides of the heart.	3. ____
4. Primary consumers	d. consists of many populations living together in a particulate habitat	4. ____
5. Over hunting	e. naturally occurring magnet	5. ____
6. Igneous rock	f. the molten rock under the Earth's crust	6. ____
7. Magma	g. the distance from one crest to another or one trough to another of an oscillation.	7. ____
8. Wavelength	h. causes organisms to become endangered or extinct	8. ____
9. Pitch	i. a crystalline or glassy rock formed when magma or lava cools and solidifies e.g. granite, obsidian	9. ____
10. lodestone	j. quality of sound that depends on the frequency of the sound	10. ____

Q.4

[8]

a. Label the following diagram of the heart.

[ ]/5]



b. Gaseous exchange takes place in small air sacs called alveoli. Describe the features of the alveoli which help in quick and efficient diffusion of gases? [ ]/3]

---

---

---

---

**Q.5**

**[6]**

- a.** In a tropical rain forest the tall trees block the light from reaching the small plants growing under the canopy. Describe the structural adaptations of such plants for seeking out light. **[ 2 ]**

---

---

---

---

- b.** Some predators and prey use camouflage to avoid being detected. What adaptations do the following organisms use to escape from their predators or defend them? **[ 2 ]**

**i.** Puffer Fish

---

---

**ii.** Chameleon

---

---

- c.** Describe biotic and abiotic environments. **[ 2 ]**

---

---

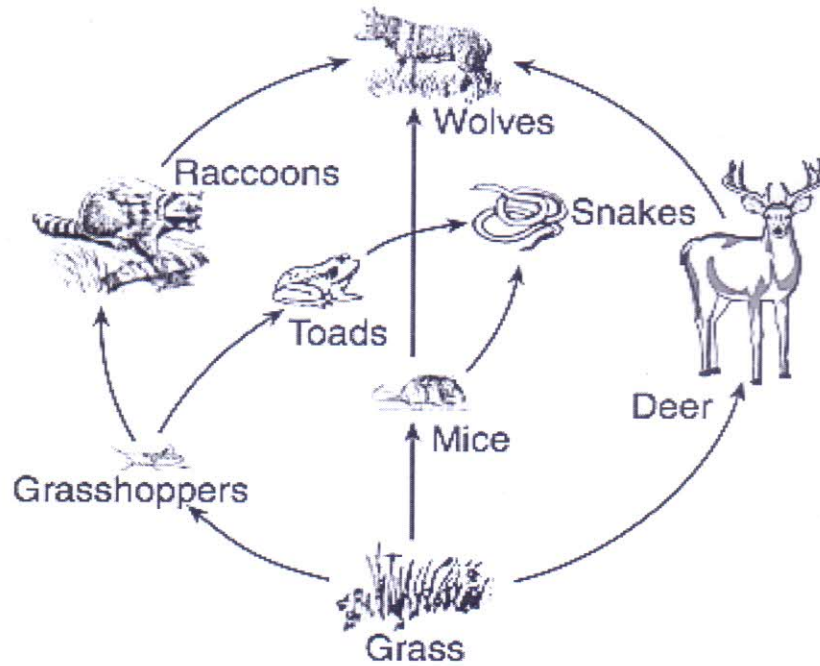
---

---

Q.6 Study the following food web and answer the questions given below:

[6]

### A Meadow Environment



a. Construct a food chain with four links.

[ /1]

b. Which organism in the web does not prey on other organisms?

[ /1]

---

c. What will happen to the population of snakes if the population of toads increases? [ /2]

How would this increase in the population of snakes affect the population of mice?

---

---

d. Describe the role of decomposers in an ecosystem? What would happen if they were not around? [ ]/2]

---

---

Q.7 What is global warming? Describe two negative effects of global warming. [ ]/3]

---

---

---

---

Q.8 [4]

a. Describe the formation of sedimentary rocks. [ ]/2]

---

---

---

b. Name two sedimentary rocks which are rich in calcium carbonate. [ ]/2]

---

---

Q.9 [5]

a. Which conditions can change pre-existing rocks into metamorphic rocks? [ ]/2]

---

---

b. Name the parent rock of the following metamorphic rocks: [ ]/2]

i. Marble is transformed from\_\_\_\_\_.

ii. Gneiss is transformed from\_\_\_\_\_.



c. Slate is a metamorphic rock. Compare the texture of slate with its parent rock shale.

[ ]/1]

---

---

Q.10

[9]

a. Define the following:

[ ]/3]

i. Frequency

---

---

ii. Wavelength

---

---

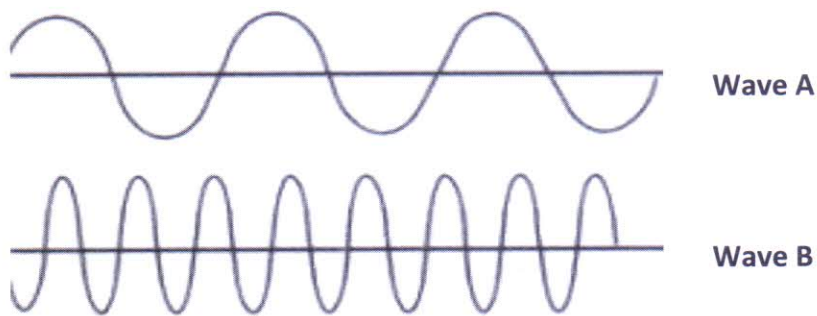
iii. Amplitude

---

---

b. Mark the wavelength on wave A and amplitude wave B.

[ ]/2]



c. Which of this sound wave shows a low frequency?

[ ]/1]

---



d. Which one represents a high pitch sound? [ ]/1]

\_\_\_\_\_

e. What are infra and ultrasounds? [ ]/2]

\_\_\_\_\_  
\_\_\_\_\_

**Q.11** [9]

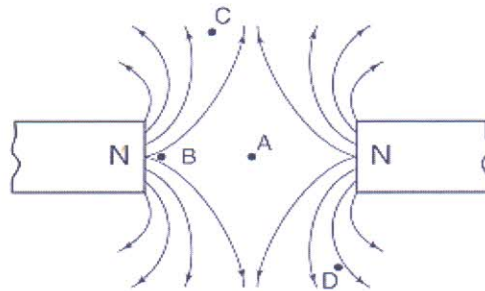
a. The materials which are attracted by a magnet are called magnetic materials. Name two magnetic materials. [ ]/2]

\_\_\_\_\_  
\_\_\_\_\_

b. Magnets can exert forces on other magnets. How many different types of magnetic forces are there? [ ]/2]

\_\_\_\_\_  
\_\_\_\_\_

c. Look at the diagram below. [ ]/3]



i. At which point the magnetic force of the magnet is the strongest?

\_\_\_\_\_

ii. What kind of magnetic force exists at point A?

\_\_\_\_\_

iii. The magnetic field lines in the diagram are showing forces of attraction or repulsion between the two poles?

---

d. Why a freely suspended magnet always points in the North-South direction? Explain. [    / 2 ]

---

---

---

---