

# The City School

## Unified Midyear Examinations 2018-19



SCHOOL  
NAME

INDEX  
NUMBER

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**SCIENCE**  
**CLASS 8**

**December 2018**  
**2 hours**

**READ THESE INSTRUCTIONS FIRST**

- ❖ Write your index number and branch/ campus clearly in the space provided.
- ❖ You have ten minutes reading time –use it to look carefully through the paper.
- ❖ Read and follow the instructions of the questions given.
- ❖ Answer all question in the spaces provided.
- ❖ Check your answer paper before you hand it in.
- ❖ Marks for each section are shown below.

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

|                       | SECTION A (50) |           |           |           |           | SECTION B (50) |           |           |           |           |           |            |
|-----------------------|----------------|-----------|-----------|-----------|-----------|----------------|-----------|-----------|-----------|-----------|-----------|------------|
| Question #            | 1              | 2         | 3         | 4         | 5         | 6              | 7         | 8         | 9         | 10        | 11        |            |
| <b>Max. Marks</b>     | <b>30</b>      | <b>10</b> | <b>10</b> | <b>07</b> | <b>07</b> | <b>06</b>      | <b>06</b> | <b>06</b> | <b>06</b> | <b>06</b> | <b>06</b> | <b>100</b> |
| <b>Marks Obtained</b> |                |           |           |           |           |                |           |           |           |           |           |            |

|                   |  |              |  |
|-------------------|--|--------------|--|
| <b>Percentage</b> |  | <b>Grade</b> |  |
|-------------------|--|--------------|--|

**Invigilated by:** \_\_\_\_\_ **Marked by:** \_\_\_\_\_ **Rechecked by:** \_\_\_\_\_

**Q.1 Multiple choice questions**

Choose the correct answer for the given statements and encircle it. [ /30]

i. Virus consist of DNA or RNA surrounded by a:

- A. cell wall
- B. protein coat
- C. cell membrane
- D. fungal cellulose

ii. Mushroom is a type of:

- A. fungi
- B. algae
- C. virus
- D. bacteria

iii. The manufacturing of medicines and sewage treatment is related to:

- A. ecology
- B. micro biology
- C. pathology
- D. biotechnology

iv. Penicillin can be used to treat:

- A. bacterial diseases
- B. fungal diseases
- C. viral diseases
- D. Both A & B

v. Which of the following is used for making yogurt:

- A. bread mould
- B. lactobacillus bacteria
- C. penicillium
- D. yeast

- vi. **Dysentery is caused by:**
- A. fungi
  - B. amoeba
  - C. Virus
  - D. Flies
- vii. **White blood cells and antibodies are components of the:**
- A. circulatory system
  - B. excretory system
  - C. nervous system
  - D. immune system
- viii. **Bacteria, fungi and viruses are types of micro-organisms. Which one is the smallest?**
- A. bacteria
  - B. viruses
  - C. fungi
  - D. all are of the same size
- ix. **Protein deficiency results in a disease called:**
- A. kwashiorkor
  - B. diabetes
  - C. osteoporosis
  - D. scurvy
- x. **Most of the energy in our bodies is provided by:**
- A. vitamins
  - B. calcium
  - C. iron
  - D. carbohydrates

- xi. Rice, potatoes and cereals are main source of:**
- A. fats
  - B. proteins
  - C. starch
  - D. minerals
- xii. Fats are made up of :**
- A. carbon, hydrogen and oxygen
  - B. carbon, oxygen and nitrogen
  - C. oxygen , nitrogen and hydrogen
  - D. carbon and hydrogen only
- xiii. Too much salt can cause:**
- A. high blood pressure
  - B. flu and cough
  - C. weight loss
  - D. night blindness
- xiv. Involuntary muscular movement of the alimentary canal is called:**
- A. churning
  - B. grinding
  - C. peristalsis
  - D. contractions
- xv. Chemical substances which are used to speed up the reactions in the body:**
- A. hormones
  - B. enzymes
  - C. vitamins
  - D. platelets

- xvi. The first part of small intestines is called:**
- A. rectum**
  - B. appendix**
  - C. duodenum**
  - D. ileum**
- xvii. Feathers are good insulators because they are:**
- A. light**
  - B. waterproof**
  - C. have air pockets**
  - D. reflect heat**
- xviii. Another name for heat energy is:**
- A. kinetic energy**
  - B. mechanical energy**
  - C. frictional energy**
  - D. thermal energy**
- xix. The fastest method of heat transfer is:**
- A. convection**
  - B. radiation**
  - C. conduction**
  - D. reflection**
- xx. When one end of the metallic rod is heated, the particles:**
- A. get closer**
  - B. get bigger**
  - C. vibrate and the vibration is passed on from one particle to the other.**
  - D. Particles move in all directions**

- xxi. Which of the following is the cause of land and sea breeze:**
- A. reflection
  - B. radiation
  - C. convection
  - D. conduction
- xxii. A solar panel has a black surface because it :**
- A. absorbs radiation
  - B. reflects more heat
  - C. reflects radiation
  - D. is a poor radiator
- xxiii. Common appliances like refrigerators and air conditioners make use of:**
- A. convection
  - B. conduction
  - C. radiation
  - D. reflection
- xxiv. Clear glass and diamond are the examples of:**
- A. transparent materials
  - B. translucent materials
  - C. opaque materials
  - D. conductors
- xxv. The speed of light in vacuum is:**
- A. 300,000,000 m/s
  - B. 300 000 m/s
  - C. 3000 000 m/s
  - D. 30 000 m/s

**xxvi. Objects that emit their own light are:**

- A. non-Luminous
- B. transparent
- C. luminous
- D. translucent

**xxvii. If an object reflects all colours of white light, it appears:**

- A. green
- B. blue
- C. red
- D. white

**xxviii. Yellow is formed by mixing:**

- A. red and green
- B. red and blue
- C. white and orange
- D. green and white

**xxix. The bending of light is called:**

- A. reflection
- B. deflection
- C. radiation
- D. refraction

**xxx. An instrument which enables us to see the moons, planets and stars is called:**

- A. microscope
- B. telescope
- C. periscope
- D. kaleidoscope

**Q.2 Fill in the blanks.**

[ /10]

- i. A \_\_\_\_\_ cell does not have a nucleus.
- ii. Due to misuse of antibiotics, bacteria develop \_\_\_\_\_ against disease.
- iii. Number of childhood diseases have dropped down due to the use of \_\_\_\_\_.
- iv. The removal of undigested matter from the body is called \_\_\_\_\_.
- v. \_\_\_\_\_ breaks down large starch molecules.
- vi. The presence of soluble proteins in food can be tested by using \_\_\_\_\_ solution.
- vii. The SI unit of temperature is the \_\_\_\_\_.
- viii. Clinical thermometer contain \_\_\_\_\_ which is poisonous, if you break the thermometer.
- ix. If an object absorbs all colours of light, it appears \_\_\_\_\_.
- x. \_\_\_\_\_ absorbs certain colours of light while transmitting others.

**Q.3 Cross matching:**

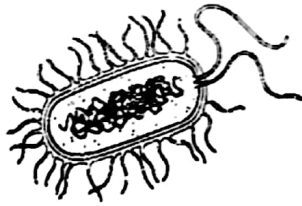
[ /10]

Read the terms given in Column A and match them with their correct interpretation in Column B. Write your final answer in column C.

| Column A           | Column B   | Answer   |
|--------------------|--|----------|
| 1. Lipase          | a. the path along which light travels  | 1. ____  |
| 2. Bile            | b. organisms that carry germs in their bodies and pass the germs on to someone when they bite or sting the person. | 2. ____  |
| 3. Fungi           | c. A point source of light forms a shadow of an object which is a dark region with a well defined outline          | 3. ____  |
| 4. Lactobacillus   | d. breaks down fats into simpler units of fatty acids  | 4. ____  |
| 5. Vectors         | e. separation of white light into its component colours when it passes through a glass prism                       | 5. ____  |
| 6. Change of state | f. produced by the liver and stored in the gall bladder  | 6. ____  |
| 7. Ray             | g. convert milk sugar (lactose) into lactic acid   | 7. ____  |
| 8. Umbra           | h. bending of light when it travels from one medium to another medium  | 8. ____  |
| 9. Refraction      | i. mushrooms; toadstools; yeasts and mould   | 9. ____  |
| 10. Dispersion     | j. heating without a change of temperature   | 10. ____ |



Q.4 Look at the diagram given below and answer the questions:



i. Identify the micro-organism given above: \_\_\_\_\_ [ /1]

ii. Name two infectious diseases caused by the organism identified above: [ /2]

\_\_\_\_\_

iii. Explain how Malaria is spread? [ /2]

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

iv. Write down one way in which fungus can benefit us and one way in which it can harm us. [ /2]

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

Q.5 Answer the following questions:

i. How does baker's yeast help to raise dough? [ /1]

\_\_\_\_\_

ii. Why are viruses not classified as living things? [ /1]

\_\_\_\_\_

iii. Write three ways in which micro-organisms are useful? [ /3]

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

iv. How do germs enter our body? [ /2]

Write at least two ways in which they enter the body.

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Q.6 Complete the table below: [ /6]

| Part of alimentary canal | Secretion/Enzyme | Food group on which enzyme acts  | End Product  |
|--------------------------|------------------|----------------------------------|--------------|
| Stomach                  |                  | Long chains of protein molecules |              |
| Duodenum                 |                  |                                  | Fat droplets |
| Small intestine          | Carbohydrases    |                                  |              |

Q.7.a Answer the following questions:

i. The deficiency of this nutrient results in scurvy. Identify the nutrient and state its function in our body. [ /1]

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ii. As a result of its deficiency a person may suffer from Goiter. Name the nutrient and write its role in our body. [ /1]

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b. Name a part of the digestive system where;

i. Most of the digestion takes place. [ /1]

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ii. Most of the absorption of water takes place. [ /1]

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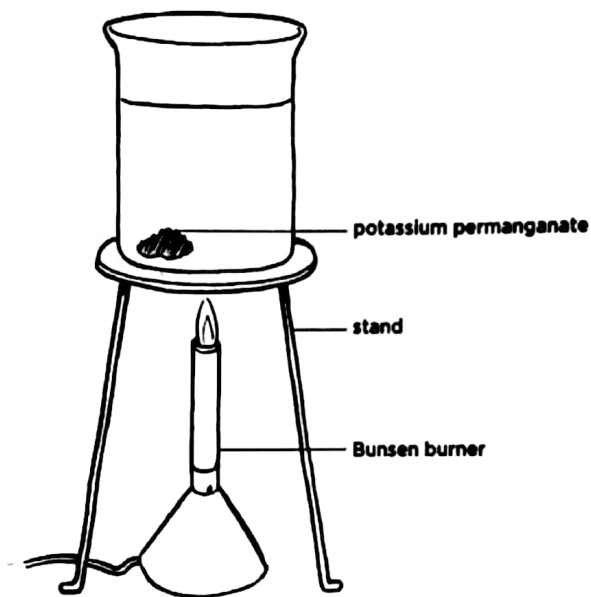
c.i Name the finger like projections on the inner surface of small intestine. [ /1]

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ii. State the role of these finger like projections. [ /1]

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**Q.8** The beaker is filled with cold water. Crystals of potassium permanganate are placed at the bottom of beaker. The water around the crystals becomes coloured. When the beaker is heated, the coloured water moves.



a.i On Fig. draw arrows indicating the direction of movement of the water in beaker.

[ /1]

ii. State the name of this method of thermal energy transfer in the water.

[ /1]

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b. Explain why the water moves in this way.

[ /2]

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c. Which mode of heat transfer cannot take place in vacuum? Explain. [ /2]

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Q.9.a Why solar panels are installed with black base? [ /2]

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b. Why is it more effective for heaters to be placed at bottom and air conditioners to be placed on top? [ /2]

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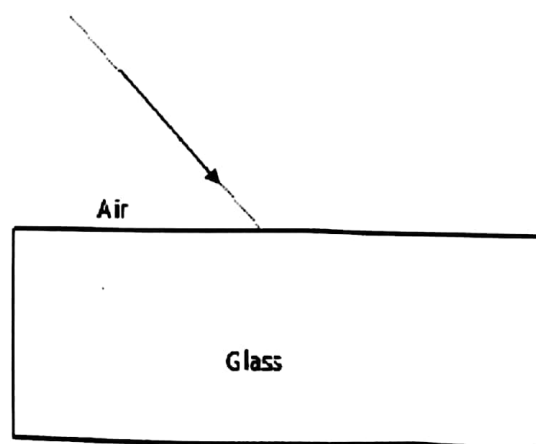
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c. How double glazed windows help to keep the rooms warm in winter and cool in summer? [ /2]

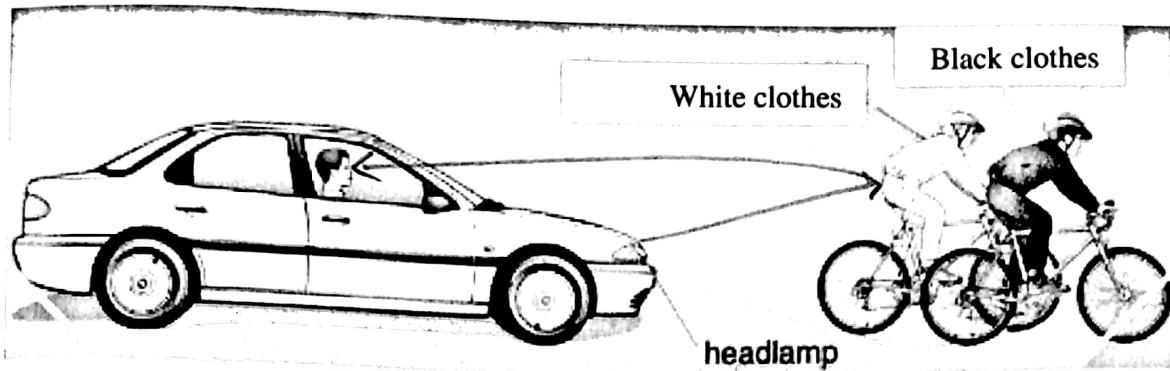
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Q.10 Draw on the diagram to complete the path of the ray and Label the incident ray, refracted ray, emergent ray and normal in the diagram. [ /6]



**Q.11.a** Two cyclists are riding along a dark road at night. One is wearing black clothes and the other is wearing white colored clothes. A car is driving behind the two cyclists and its light shines on them.



i. What happens to light when it reaches the white coloured clothes? [ /1]

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ii. What happens to light when it reaches the black coloured clothes? [ /1]

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iii. Draw a ray of light on the above diagram to show how the light from the headlamp reaches the driver, so that he can see the cyclist in white coloured clothes. [ /2]

b. What colors are formed when following colors of light combine? [ /2]

i. Red + Green = \_\_\_\_\_

ii. Blue + green = \_\_\_\_\_