

**O. P. JINDAL SCHOOL, SAVITRI NAGAR**  
**Half Yearly Examination– (2023-24)**

Class/Sec- VII/ \_\_\_\_\_

Subject – Science

Name \_\_\_\_\_

MM – 80

Time- 3 hours

Roll No. \_\_\_\_\_

*Fifteen minutes extra will be given for reading the Question Paper.*

*General Instructions – All the questions are compulsory.*

1. The Question Paper comprises of 6 sections A,B,C,D,E,F. There are 24 questions in all.
2. Section A, Q1 comprises of 12 MCQ type questions and carries 1 mark each.
3. Section B, Q2 comprises of 4 Case-Based type questions.
4. Section C, Q3 comprises of 4 Assertion-Reason type questions.
5. Section D, Q4 to Q12 are very short answer type questions, carries 2 marks each.
6. Section E, Q13 to Q21 are short answer type questions, carries 3 marks each.
7. Section F, Q22 to Q24 are long answer type questions, carries 5 marks each.

## SECTION - A

Q1. Choose The Correct Option.

(12X1=12)

(i) Which of these is a saprophytic plant?

- (a) Lichen                      (b) Pitcher plant                      (c) Mushroom                      (d) Dodder plant

(ii) Green plants are called

- (a) Autotrophs                      (b) Heterotrophs                      (c) Saprotrophs                      (d) Both a and b

(iii) Find the odd one out.

- (a) Liver                      (b) Pancreas                      (c) Gall bladder                      (d) Rumen

(iv) What juice is stored by the gall bladder?

- (a) Pepsin                      (b) Bile                      (c) Glucose                      (d) Fructose

(v) An iron ring is heated to temperature 120°C and is put in a tumbler containing water at 30°C temperature. Heat (temperature) will flow from

- (a) Water to iron                      (b) Iron to water                      (c) Does not flow                      (d) Air to water

(vi) Convection process takes place in case of

- (a) Solid only                      (b) Liquid only                      (c) Gas only                      (d) Both b and c

(vii) The degree of hotness or coldness of a material is called its

- (a) Thermometer      (b) Humidity      (c) Temperature      (d) Celcius

(viii) Acidic soil can be neutralized by adding

- (a) Quicklime      (b) Vinegar      (c) Nitric acid      (d) Indicators

(ix) Which acid is present in lemon juice?

- (a) Acetic acid      (b) Citric acid      (c) Formic acid      (d) Hydrochloric acid

(x) Which of these organisms breathe through anaerobic respiration?

- (a) Fish      (b) Yeast      (c) Mammals      (d) Algae

(xi) Cramps in muscles occurs due to accumulation of

- (a) Lactic acid      (b) Folic acid      (c) Glucose      (d) Carbon dioxide

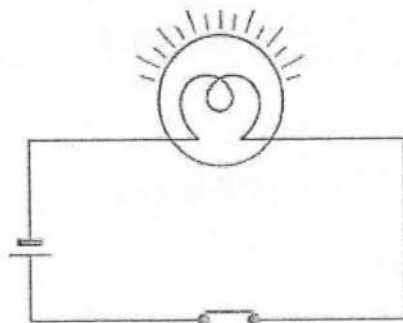
(xii) In insects, the air enters the body through


- (a) Lungs      (b) Gills      (c) Spiracles      (d) Mouth

### SECTION -B

Q2. Look at the diagram and answer the following questions.

(4X1=4)




(i) What represents the symbol? 

- (a) Compass      (b) Magnet      (c) Switch      (d) Bulb

(ii) The circuit is a \_\_\_\_\_ circuit.

- (a) Closed      (b) Opened      (c) Strong      (d) Both a and b

(iii) Identify the symbol present in the circuit. 

- (a) Switch (ON)      (b) Switch (OFF)      (c) Terminal      (d) Wire

(iv) How many terminals does the cell have ?

- (a) One      (b) Two      (c) Three      (d) Four

### SECTION -C

**Q3. A statement of Assertion is given by the corresponding statement of Reason. Choose the correct answer. (4X1=4)**

(i) **Assertion** – Motion of a pendulum is periodic.

**Reason** – Oscillatory motions are periodic motion.

- (a) Assertion and reason both are correct and reason is correct explanation for assertion.  
(b) Assertion and reason both are correct and reason is not correct explanation for assertion.  
(c) Assertion is correct but reason is a wrong statement.  
(d) Assertion is wrong but reason is a correct statement.

(ii) **Assertion** – The unit of time in speed is referred as second.

**Reason** – The SI unit of time is minute.

- (a) Assertion and reason both are correct and reason is correct explanation for assertion.  
(b) Assertion and reason both are correct and reason is not correct explanation for assertion.  
(c) Assertion is correct but reason is a wrong statement.  
(d) Assertion is wrong but reason is a correct statement.

(iii) **Assertion** – A car travelling on a straight road is always said to be in uniform motion.

**Reason** – The speed of an object with uniform motion along a straight line remains constant.

- (a) Assertion and reason both are correct and reason is correct explanation for assertion.  
(b) Assertion and reason both are correct and reason is not correct explanation for assertion.  
(c) Assertion is correct but reason is a wrong statement  
(d) Assertion is wrong but reason is a correct statement.

(iv) **Assertion** – Sitting in a moving train, the outside appears to be in motion.

**Reason** – Motion is relative.

- (a) Assertion and reason both are correct and reason is correct explanation for assertion.
- (b) Assertion and reason both are correct and reason is not correct explanation for assertion.
- (c) Assertion is correct but reason is a wrong statement
- (d) Assertion is wrong but reason is a correct statement.

**SECTION -D**

**(9X2=18)**

Q4. Why do organisms take food?

Q5. Draw a neat diagram to show photosynthesis in plants.

Q6. Define (i) Saliva (ii) Buccal cavity.

Q7. Why do we get instant energy from glucose?

Q8. In places of hot climate it is advised to paint outer walls of houses white. Give reason.

**OR**

Wearing two thin layers of clothes during winter keeps us warmer than wearing one layer of thick layer of cloth. Why?

Q9. Write two similarities between clinical thermometer and laboratory thermometer.

Q10. Why do we take an antacid when we suffer from acidity in stomach?

Q11. Is the distilled water acidic/basic/neutral? How would you verify it?

**OR**

Describe the process of neutralization with the help of an example.

Q12. A car takes 2 hours to cover 70 km distance. Find the speed in km/h.

**SECTION -E**

**(9X3=27)**

Q13. Give a brief description on how ruminants digest their food?

**OR**

How can you show the effect of saliva on starch?

Q14. Define (i) Autotrophs (ii) Heterotrophs (iii) Parasites

**Q15.** Show the transfer of heat conduction, convection, radiation in the picture marked as a, b, c.

Also define all of them.



**Q16. (i)** Why does a turmeric stain on white shirt turns red when washed with soap?

**(ii)** Blue litmus dipped in a solution remains blue. Write down the nature of the solution.

**Q17.** Explain how movement of diaphragm and ribs help in the process of breathing.

**OR**

What is respiration? Name any four different organisms use different organs to breathe.

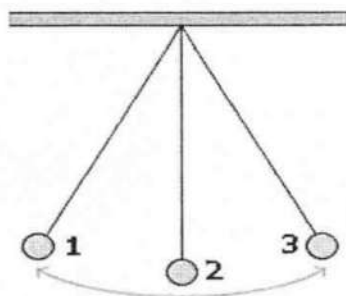
**Q18.** Explain aerobic and anaerobic respiration with example.

**Q19.** Name the type of motion in the picture. Is it periodic? Why?



**OR**

See the picture below. Explain its motion and the time taken to complete one motion.



**Q20.** Name the motion of a ball that is dropped from a height. How is it different from the motion of a pendulum?

**Q21.** (i) How does a bulb glow?

(ii) How can you show electric current produces heating effect? (Activity)

**SECTION -F**

**(3X5=15)**

**Q22.** (i) What acid is injected by an ant when it bites? How can you cure an ant bite?

(ii) What happens when hydrochloric acid and sodium hydroxide are treated with turmeric indicator?

**OR**

(i) Write three differences between acids and bases.

(ii) Define indicator. Why are indicators used?

**Q23.** Draw a well labeled diagram of the respiratory system in human being.

**OR**

Draw and explain the function of diaphragm when we inhale and exhale air.

**Q24.** Explain the working of an electric bell with diagram.

**OR**

Explain construction of a simple electromagnet with a labeled diagram.

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