



ANGEL'S PUBLIC SCHOOL

HALF YEARLY EXAMINATION

(SAMPLE PAPER)

SESSION 2026 – 27
SUBJECT : SCIENCE
GRADE – VII

TIME : 03 HRS

M.M:80

GENERAL INSTRUCTIONS

- (a) Read all the questions carefully before answering.
- (b) The question paper consists of 5 Sections – A, B, C, D and E.
- (c) Attempt any 10 questions from Section – B and any 3 questions from Section C.
- (d) Draw neat and properly labelled diagrams wherever required.
- (e) Write your answers neatly and maintain proper question numbering throughout the answer sheet.

SECTION – A

[20]

A. Multiple choice questions:

(10x1=10)

1. Which of the following is a natural indicator?

- (a) Blue litmus (b) China rose extract (c) Phenolphthalein (d) Methyl orange

2. Which substance is basic in nature?

- (a) Lemon juice (b) Vinegar (c) Soap solution (d) Tamarind juice

3. Which property allows metals to be drawn into wires?

- (a) Malleability (b) Ductility (c) Brittleness (d) Sonority

4. Which of the following is a non-metal?

- (a) Iron (b) Copper (c) Sulphur (d) Aluminium

5. Heat from the Sun reaches the Earth through:

- (a) Conduction (b) Convection (c) Radiation (d) Reflection

6. During the daytime, cool air blows from:

- (a) Land to sea (b) Sea to land (c) North to south (d) Mountains to plains

7. Speed is equal to:

- (a) Time ÷ Distance (b) Distance x Time (c) Distance ÷ Time (d) Distance + Time

8. The Earth completes one rotation in about:

- (a) 12 hours (b) 24 hours (c) 30 days (d) 365 days

9. **Assertion (A):** Metals are good conductors of electricity.

Reason (R): Metals contain free electrons.

- (a) Both A and R are true and R is the correct explanation.
- (b) Both A and R are true but R is not the correct explanation.
- (c) A is true but R is false.
- (d) A is false but R is true.

10. The Full Moon occurs when:

- (a) Moon is between Earth and Sun
- (b) Earth is between Sun and Moon
- (c) Sun is between Earth and Moon
- (d) None of these

B. Write Answer in one word.

(10x1=10)

1. Name the substance, which has a pH less than 7 ?.
2. Name the substance that changes Color in acids and bases?
3. Name the property by which metals can be beaten into sheets..
4. Which metal is the best conductor of heat among common metals?
5. Name the mode of transfer of heat that does not require a medium.
6. Name the instrument used to measure time accurately.
7. What is the S.I unit of speed?
8. Name the movement of the Earth around the Sun.
9. Which shape of the moon is seen from the Earth?
10. Which star is the nearest to the Earth?

SECTION – B

[30]

C. Short Answer type Questions. (Do any 10)

(10x3=30)

1. Differentiate between acids and bases.
2. Write any three uses of indicators.
3. State three properties of metals.
4. Why are non-metals generally poor conductors of electricity?
5. Explain malleability and ductility with examples.
6. Differentiate between conduction and convection.
7. Why do coastal areas experience sea breeze during the day?

8. Define speed. Write its formula and SI unit.
9. Calculate the speed of a cyclist who covers 1200 m in 4 minutes.
10. Differentiate between rotation and revolution of the Earth.
11. Explain why the Moon appears to change its shape.
12. Name any three artificial satellites and write one use of each.

SECTION – C

[15]

D. Long Answer type Questions. (Do any 3)

(3x5=15)

1. Explain the properties of acids, bases and neutral substances. How are natural indicators used to identify them?
2. Compare metals and non-metals on the basis of:
 - (i) Appearance (ii) Conductivity (iii) Malleability (iv) Ductility (v) Sonority
3. Explain the three modes of heat transfer—conduction, convection and radiation—with suitable examples.
4. Describe the Earth's rotation and revolution with neat labelled diagrams. Mention their effects on day- night and seasons.
5. A car travels 180 km in 3 hours.
 - (i) Calculate its speed.
 - (ii) Write the formula used.
 - (iii) Mention two factors affecting motion.

SECTION – D

[5]

5. Case-Based Question.

Riya tested four household substances using China rose indicator. Lemon juice turned the indicator dark pink, soap solution turned it green, while distilled water showed no colour change. Later she observed that a steel spoon became hot when kept in hot tea. In the evening, she noticed cool air blowing from the sea towards the land.

Answer the following:

- (a) Which substance is acidic?
- (b) Which substance is basic?
- (c) Why did the steel spoon become hot?
- (d) Which mode of heat transfer took place in the spoon?
- (e) Name the type of breeze blowing in the evening.

SECTION – E

[10]

6. Diagrams.

(2x5=10)

(a)

(b)