ST. THOMAS SCHOOL, SAHIBABAD
WORKSHEET ANNUAL EXAMINATION (2025-2026)
CLASS – VIII
SCIENCE (086)
SECTION – A

Select and write one most appropriate option out of the four options given:

1. Sexual reproduction begins with:

   (A) implantation (B) fertilisation
   (C) zygote formation (D) development of embryo

2. Sound waves can be used to measure the depth of the sea is of frequency:

   (A) 15,000 Hz (B) 10 kHz (C) 50 kHz (D) 1,000 Hz

3 Endocrine gland attached to the brain is:

   (A) Adrenal (B) Pituitary (C) Thyroid (D) Pancreas

4 The angle between an incident ray and the plane mirror is 30˚. The total angle between the incident ray and the reflected ray will be:

   (A) 30˚ (B) 60˚ (C) 90˚ (D) 120˚

5. The substance which give heat and light after combustion is called:

   (A) flame (B) fuel (C) combustion (D) energy source

6. Fuel that has the highest calorific value is:

   (A) Kerosene (B) Biogas (C) LPG (D) Petrol

7. The hottest zone of the flame is:

   (A) innermost zone (B) middle zone (C) outermost zone (D) blue zone

8. The cause of formation of patterns in a kaleidoscope is:

   (A) repeated reflection of light (B) thickness of reflecting surface
   (C) roughness of reflecting surface (D) enormous amount of light falling on surface

Q. No 9 and 10 are Assertion - Reasoning based questions.
These consist of two statements – Assertion (A) and Reason (R).
Answer these questions selecting the appropriate option given below:
(A) Both A and R are true and R is the correct explanation of A.
(B) Both A and R are true and R is not the correct explanation of A.
(C) A is true but R is false.
(D) A is False but R is true.

9. **Assertion (A):** Day birds like eagle and pigeon have more cones and fewer rods in their eyes.
   Reason (R): Cones are sensitive to bright light.
10. **Assertion (A):** When electric current is passed through copper sulphate solution, it dissociates into copper and sulphate ions.
    Reason (R): Copper is a good conductor of electricity.

SECTION-B (2 MARKS)

11. When we put our ear to a railway line, we can hear the sound of an approaching train even when the train is far off but its sound cannot be heard through the air. Give reason.
12. Mother gives birth to a baby, but the baby has characters of both parents. How is this possible? Justify your answer.
13. What happens when electric current is passed through a cut potato?

OR

Describe the functioning of a LED.

SECTION-C (3 MARKS)

14. State the conditions under which combustion occurs. Why is it more difficult to burn some combustible substances than others?

OR

Compare LPG and wood as fuels?

15. Differentiate between optical aids and non-optical aids used by visually impaired person to enhance their capabilities along with examples.
16. How can you make a tester to test whether a given material is a conductor or an insulator?

SECTION-D (5 MARKS)

17. Draw and label human female reproductive system and answer the following questions:

(i) In which part of the female reproductive system does a zygote form?
(ii) How many eggs are usually released each month by the ovary of a woman?
(iii) In which part of the female reproductive system does an embryo implant?

18. What is calorific value of a fuel? Write its unit. In an experiment 4.5 kg of a fuel was completely burnt. The heat produced was measured to be 180,000 kJ. Calculate the calorific value of the fuel.

SECTION-E (4 MARKS)

19. In a school laboratory, a student conducts an experiment to coat a key with a layer of copper using a copper sulphate ($CuSO_4$) solution. The setup consists of two copper electrodes, with the key being placed at the cathode and a copper plate as the anode. The circuit is connected to a battery. After some time, the student observes that the key has developed a shiny copper coating.

(i) What process is being carried out in this experiment?
(ii) What happens at the anode during this process?

Attempt either (iii) or (iv).

(iii) What are the applications of this process?
(iv) Write the disadvantages of this process.

20. The frequency and amplitude of sound waves determine the pitch and loudness of sound. A higher frequency results in a higher pitch, such as the sound of a whistle. On the other hand, a lower frequency produces a lower pitch. Amplitude is the maximum displacement of a vibrating particles of the medium and a larger amplitude mean a louder sound.

(i) Which property of vibration determines the pitch of sound?
(ii) If the amplitude of vibrations is tripled, what effect will be observed on loudness?

Attempt either (iii) or (iv)

(iii) A simple pendulum makes 10 oscillations in 20 s. Can we hear the sound produced?
(iv) Define time period and frequency.