**SAINIK SCHOOL GOPALGANJ**

**SUMMER VACATION PROJECT/ APPLICATION BASED ASSIGNMENT(2021-22)**

**CLASS: X**

**Part III**

**ASSIGNMENT**

**GENERAL SCIENCE (BIOLOGY)**

**Chapter-Life Processes- 1.Respiration Class-X**

***General Instructions***

**…………………………………………………………………………………………………………..**

*1. All questions are compulsory.*

*2. Question1 to 10 is multiple choice questions.*

*3. Question 10 to 14 is short answer questions.*

*4. Question 15 is long answer questions.*

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1. Respiration is
   1. Anabolic process (b) Catabolic process

(c) Both ( a) and ( b) (d) Endothermic process.

1. Metabolism involves
   1. Anabolic process (b) Catabolic process

(c) Both a and b (d) Only redox process

1. Organisms obtain energy through
   1. Reproduction (b) Excretion (c) Respiration (d) Digestion
2. Respirations is a
   1. Endepgonic process (b) Exergonic process

(c) Both A and B (d) Neutralisation reaction

1. During respiration the food is
   1. Oxidised (b) Reduced

(c) Both oxidised and reduced (d) Neither oxidised nor reduced

1. Which of the following is a main respiratory substrate in animals
   1. Fructose (b) Starch (c) Glucose (d) Proteins
2. Fermentation occurs in the
   1. Presence of oxygen (b) Presence of water

(c) Absence of oxygen (d) Mitochondria

1. First stage in respiration is
   1. Glycolysis (b) Krebs cycle (c) ETS (d) Glycogenesis
2. Glucose is converted to pyruvic acid in
   1. Krebs cycle (b) C4 cycle (c) C3 cycle (d) Glycolysis.
3. Lactic acid is formed due to the reduction of
   1. Pyruvic acid (b) Acetaldehyde (c) Malic acid (d) Acetyl CoA
4. State the role of following in human respiratory system:

(a)Nasal cavity (b) Alveoli (c) Trachea

1. What are the differences between the following?

(a) Photosynthesis and respiration?

(b) Aerobic and anaerobic respiration

1. Define breathing. Explain the mechanism of breathing in human beings.
2. Why the lungs alveoli are covered with blood capillaries?
3. Draw a labeled diagram of human respiratory system.
4. What is SPO2 level? On what factors the normal range of SPO2 level varies. Why do the SPO2level start to decrease in Covid-19 infected person. Explain it.

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