KOMARASAMY GOUNDER MAT.HR.SEC.SCHOOL - KURUMANDUR

MONTHLY TEST - JULY -2023

X - STANDARD

SCIENCE

TIME: 1.30 HOURS SCIENCE = UNIT: 10 & 16 MAXIMUM MARKS: 50

PART - A

I.CHOOSE THE CORRECT ANSWER:

10 X 1 = 10

- 1. Which one is helps in the breakdown of glycogen to glucose in the liver
 - a) Insulin
- b) epinephrine
- c) Glucagon

d) both b & c

- 2. Which one is referred as "Master gland"?
 - a) Pineal gland

b) Pituitary gland

c) Thyroid gland

- d) Adrenal gland
- 3. Inadequate supply of iodine in our diet causes
 - a) Myxoedema
- b) Hyperdension
- c) cretinism
- d) Goitre
- 4. Which one of the following hormone is naturally not found in plants.
 - a) 2,4 D
- b) GA 3

- c) Gibberllin
- d) IAA
- 5. The hormone which has negative effects on apical dominance is
 - a) Auxin
- b)Cytokinin
- c) Gibberllin
- d) ABA

- 6. The normal pH of Human saliva is......
 - a) 6 8
- b) 1

c) 3.5

d) 4.2

7. The chemical equation

$$\mathsf{N} \alpha_2 \mathsf{SO}_{4(\mathsf{aq})} \; + \mathsf{BaCl}_{2(\mathsf{aq})} \; \; \longrightarrow \; \mathsf{BaSO}_{4(\mathsf{S})} \downarrow + 2\mathsf{NaCl}_{(\mathsf{aq})}$$

represents which of the following types of reaction?

a) Neutralization

b) Combustion

c) Precipitation

- d) Single displacement
- 8. The pH of a solution is 3. Its (OH⁻) concentration is
 - a) 11 M
- b) $1 \times 10^{-11} \text{ M}$
- c) 3 M
- d) 1×10^{-3} M

- 9. Photolysis is decomposition reaction caused by
 - a) Heat

b) Electricity

c) Light

- d) Mechanical energy
- 10. The molecule is dissociated by the absorption of heat it is otherwise called
 - a) Photolysis

b) Thermolysis

c) Generalised scheme

d) Displacement

PART - B

II.ANSWER ANY FIVE OF THE FOLLOWING:

5 X 2 = 10

QUESTION NUMBER "15" IS COMPULSORY

- 11. Which one is called life saving hormone. Why? Give reason.
- 12. What is the role of parathormone?
- 13. Answer the following:
 - i) Write the name of a synthetic auxins.
 - ii) Which hormone is always called personality hormone?
- 14. What is meant Richmond lang effects?
- 15. Lemon juice has a pH 2, What is the concentration of H⁺ ions.
- 16. When does the reaction rate of a reaction increase on raising the temperature.
- 17. All combustion reactions are oxidations but all oxidations are not combustions. Why?

PART - C

III. ANSWER ANY FOUR OF THE FOLLOWING :

4 X 4 = 16

- QUESTION NUMBER "22" IS COMPULSORY.

 18. i) What are synthetic auxins? give example.
 - ii) Draw the structure of pancreas and label the parts
- 19. i) Draw the structure of thyroid gland and label the parts.
 - ii) Bring out any two physiological activities of abscisic acid.
- 20. What are the conditions which occurs due to lack of ADH and insulin? How are the conditions differ from one another.
- 21. Differentiate between Reversible and irreversible reaction.
- 22.i) The hydrogen ion concentration of a fruit juice is $3.3 \times 10^{-2} \text{ M}$. What is the pH of the juice? is it acidic or basic?
 - ii) Laundry detergent has a pH 8.5, What is the concentration of H^+ ions?
- 23. A solid compound 'A' decomposes on heating into 'B' and a gas 'C' On passing the 'C' through water, it becomes acidic. Identify A, B and C.

PART - D

IV. ANSWER THE FOLLOWING:

2 X 7 = 14

- 24. i) Which is called supra renal gland? State its location?
 - ii) Draw the structure of these gland and label the parts.
 - iii) Find the hormones and write the functions.

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A plant hormones was first discovered in Japan. When rice plants were suffering from bakanae disease caused *Gibberella fujikorai*. Based on this information answer the following questions.

- a) Identify the hormones involved in this process.
- b) Which property of this hormone causes the disease?
- c) Give the functions of this hormones.

25. Explaining the factors influencing the rate of reaction.

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- i) How does pH play an important role in every day life.
- ii) Write the difference between combination and decomposition reaction.