

GOVT BOYS HR SECONDARY SCHOOL, PANAPAKKAM – 631 052

SCIENCE UNIT (1,7,12) MODEL TEST JULY – 2019 MARKS : 50

I. Choose the correct answer

10X1=10

- One kilogram is equals to
a) 9.8 dyne b) 9.8×10^4 N c) 98×10^4 dyne d) 980 dyne
- In which of the following sport the turning of effect of force used
a) swimming b) tennis c) cycling d) hockey
- Inertia of a body does not depends on
a) weight of the object b) acceleration due to gravity of the planet
c) mass of the object d) Both a & b
- The gram molecular mass of oxygen molecule is
a) 16 g b) 18 g c) 32 g d) 17g
- The volume occupied by 44 g of CO_2 at S.T.P
a) 22.4 litre b) 2.24 litre c) 0.24 litre d) 0.1 litre
- Atomicity of phosphorous is a) 3 b) 4 c) 5 d) 8
- The exarch condition is the characteristic feature of
a) root b) stem c) leaves d) flower
- Glycolysis takes place in
a) mitochondria b) stomata c) chloroplast d) cytoplasm
- ATP factory of the cell is
a) mitochondria b) stomata c) chloroplast d) cytoplasm
- Which is formed during anaerobic respiration
a) Carbohydrates b) Ethyl alcohol c) Acetyl CoA d) pyruvic Acid

II. Answer 15 questions from the following

15x2=30

- Define Inertia. Give its classification.
- If a 5 N and a 15 N forces are acting opposite to one another. Find the resultant force and the direction of action of the force.
- State Newton's universal law of gravitation.

- Differentiate mass and weight.
- The ratio of masses of two planets is 2:3 and the ratio of their radii is 4:7. Find the ratio of their accelerations due to gravity.
- Classify the types of force based on their application.
- Find the percentage of nitrogen in ammonia.
- Define Atomicity.
- State Avagadro's principle.
- Give any two examples for hetero diatomic molecules.
- Distinguish Molecules and Atoms.
- Match
a) 8 g of O_2 – 13 moles c) 52 g of He - 2 moles
b) 4 g of H_2 - 0.5 moles d) 35.5 g of Cl_2 - 0.25 moles
- State whether the statements are true or false. Correct the false statement.
a) Phloem tissue is involved in the transport of water in plants.
b) Mesophyll contains chlorophyll.
- Draw and label the structure of Oxysomes.
- What is respiratory quotient?
- Name the three basic tissues system in flowering plants.
- Write the reaction for photosynthesis.
- What is meant by Exarch and Endarch?
- Give an account on vascular bundle of dicot stem
- What are plastids? Mention their types.

III. Answer the following questions (ANY 2)

2x5=10

- Give the applications of universal law of gravitation.
- State the postulates of Modern atomic theory.
- Differentiate the following
a) Monocot root and Dicot root
b) Anaerobic respiration and Aerobic respiration.
- Draw and label the transverse section of Dicot leaf.