

**AUM SUN PUBLIC SCHOOL**  
**HOLIDAY HOMEWORK 2026-27**  
**CLASS – 11 (SCIENCE)**  
**SUBJECT – ENGLISH**

1. Reading Comprehension: Worksheet

Type-1 factual, descriptive Passage

Passage 1 - Pg 16

Passage 2-Pg-19

Passage 3 - pg-22

Type-2 Case-based passage.

Passage on Pg no-28

Passage on Page no. 31

NOTE-MAKING:

Page-57, Page, 63, Page 65

Complete the above mentioned in your Worksheets

Creative Grammar & Writing Skills:

Complete the evergreen Test assignments 2 & 3 [Pg-89-92]

Writing Skills: Advertisement [Worksheet]

Quo no.06- pg no 140

Ques no-10-pg no -142

Que no. 04 from the additional Exercises in your holiday Homework notebook

Page no. 144. Ques no.4, 12, 13

Poster: Page no.160

Ques no.3, Ques 6, ques 8

Do the above mentioned Additional Exercises in your English holiday

Homework notebook.

Speech: Worksheet.

Ques 3 on Page No 167

Ques 5 on Page. No. 169

Ques 2 & ques no. 6 from the additional Exercises (page no.173)] in your English Holiday Homework notebook.

LITERATURE: (Worksheet)

Complete the assignment sheet in your worksheet of the whole U T-I Syllabus..

## SUBJECT – PHYSICS

- Q1. What does the slope of v-t graph indicate?
- Q2. Under what condition the average velocity equal to instantaneous velocity?
- Q3. The position coordinate of a moving particle is given by  $x=6+18t+9t^2$  (x in meter, t in seconds) what is it's velocity at  $t=2s$  .
- Q4. Give an example when a body moving with uniform speed has acceleration.
- Q5. Two balls of different masses are thrown vertically upward with same initial velocity. Height attained by them are  $h_1$  and  $h_2$  respectively what is  $h_1/h_2$ .
- Q6. Derive an equation for the distance travelled by a uniformly accelerating body in n th second of its motion.
- Q7. The velocity of a moving particle is given by  $V=6+18t+9t^2$  (x in meter, t in seconds) what is it's acceleration at  $t=2s$ .
- Q8. what is relative velocity in one dimension, if  $V_A$  and  $V_B$  are the velocities of the body A and B respectively then prove that  $V_{AB}=V_A-V_B$ ?

## WORKSHEET 2

- Q1. A gunman always keeps his gun slightly tilted above the line of sight while shooting. Why?
- Q2: Draw position –time graphs of two objects, A and B moving along straight line, when their relative velocity is zero.
- Q3. Is larger surface area brake on a bicycle wheel more effective than small surface area brake? Explain?
- Q4. A ball rolls of the top of stair-way with a horizontal velocity of magnitude  $1.8 \text{ ms}^{-1}$  . The steps are  $0.20 \text{ m}$  high and  $0.20 \text{ m}$  wide. Which step will the ball hit first?
- a) First                      b)Second                      c) Third                      d)Fourth
- Q5. A body of mass  $100 \text{ g}$  is rotating in a circular path of radius  $r$  with constant velocity. The work done in one complete revolution is
- a)  $100 \text{ rJ}$               b)  $(r/100)\text{J}$               c)  $(100/r)\text{J}$               d)Zero
- Q6. In uniform circular motion of a particle
- a) Velocity is constant but acceleration is variable              b)Velocity is variable but acceleration is constant
- c) Both speed and acceleration are constant              d)Speed is constant but acceleration is variable
- Q7. A stone of mass  $1 \text{ kg}$  tied to a light inextensible string of length  $L = 10 \text{ m}$  is whirling in a circular path of radius  $L$  in vertical plane. If the ratio of the maximum tension to the minimum tension in the string is 4. What is the speed of stone at the highest point of the circle? (Taking  $g = 10 \text{ ms}^{-2}$  )
- a)  $10 \text{ ms}^{-1}$               b) $5\sqrt{2} \text{ ms}^{-1}$               c)  $10\sqrt{3} \text{ ms}^{-1}$               d) $20 \text{ ms}^{-1}$
- Q8.A proton in a cyclotron changes its velocity from  $30 \text{ kms}^{-1}$  north to  $40 \text{ kms}^{-1}$  east in  $20 \text{ s}$ . what is the average acceleration during this time
- a)  $2.5 \text{ kms}^{-2}$  at  $37^\circ \text{ E of S}$               b) $2.5 \text{ kms}^{-2}$  at  $37^\circ \text{ N of E}$
- c)  $2.5 \text{ kms}^{-2}$  at  $37^\circ \text{ N of S}$               d) $2.5 \text{ kms}^{-2}$  at  $37^\circ \text{ E of N}$

Q9. A man can throw a stone to a maximum distance of 80 m. The maximum height to which it will rise in metre, is

- a) 30 m                      b) 20 m                      c) 10 m                      d) 40 m

Q10. The bob of a pendulum of mass  $m$  and length  $L$  is displaced,  $90^\circ$  from the vertical and gently released. In order that the string may not break upon passing through the lowest point, its minimum strength must be

- a)  $mg$                       b)  $2mg$                       c)  $3mg$                       d)  $4mg$

Q11. An aeroplane is flying horizontally with a constant velocity of  $100 \text{ kmh}^{-1}$  at a height of 1 km from the ground level. At  $t = 0$ , it starts dropping packets at constant time intervals of  $T_0$ . If  $R$  represents the separation between two consecutive points of impact on the ground, then for the first three packets,  $R_1/R_2$  is

- a) 1                      b)  $>1$                       c)  $<1$                       d) data not sufficient

### WORKSHEET-3

#### Make a Portfolio

#### SUBJECT- CHEMISTRY

1. State law of definite proportions.
2. What is the symbol for the SI unit of the mole? How is the mole defined?
3. What is the difference between molality and molarity?
4. If two elements can combine to form more than one compound, the masses of one element that combine with a fixed mass of the other element, are in a whole-number ratio.
  - (i) Is this statement true?
  - (ii) If yes, state according to which law?
  - (iii) Give one example related to this law.
5. The arrangement of orbitals on the basis of energy is based upon their  $(n+l)$  value. Lower the value of  $(n+l)$ , the lower is the energy. For orbitals having the same values of  $(n+l)$ , the orbital with a lower value of  $n$  will have lower energy.

I. Based upon the above information, arrange the following orbitals in the increasing order of energy.

- (a) 1s, 2s, 3s, 3p  
(b) 4s, 3s, 3p, 4d  
(c) 5p, 4d, 5d, 4f, 6s  
(d) 5f, 6d, 7s, 7p

II. Based upon the above information, solve the questions given below :

- (a) Which of the following orbitals has the lowest energy?  
4d, 4f, 5s, 5p  
(b) Which of the following orbitals has the highest energy?  
5p, 5d, 5f, 6s, 6p

6. An atom having atomic mass number 13 has 7 neutrons. What is the atomic number of the atom?

7. Wavelengths of different radiations are given below:

$$\lambda(A) = 300 \text{ nm}$$

$$\lambda(B) = 300 \mu\text{m}$$

$$\lambda(C) = 3 \text{ nm}$$

$$\lambda(D) = 30 \text{ \AA}$$

Arrange these radiations in the increasing order of their energies.

### WORKSHEET-2

1. **Assertion (A):** One atomic mass unit is defined as one-twelfth of the mass of one carbon-12 atom.

**Reason (R):** Carbon-12 isotope is the most abundant isotope of carbon and has been chosen as the standard.

- (i) Both A and R are true and R is the correct explanation of A.
- (ii) Both A and R are true but R is not the correct explanation of A.
- (iii) A is true but R is false.
- (iv) Both A and R are false.

2. If 500 mL of a 5 M solution is diluted to 1500 mL, what will be the molarity of the solution obtained?

- (a) 1.5M      (b) 1.6M      (c) 0.017M      (d) 1.59 M

3. The number of atoms present in one mole of an element is equal to Avogadro number. Which of the following elements contains the greatest number of atoms?

- (a) 4gHe (b) 46gNa (c) 0.40 gCa (d) 12 g He

4. What will be the molality of the solution containing 18.25 g of HCl gas in 500 g of water?

- (a) 0.1 m (b) 1 M (c) 0.5 m (d) 1 m

5. The empirical formula and molecular mass of a compound are  $\text{CH}_2\text{O}$  and 180g respectively. What will be the molecular formula of the compound?

- (a)  $\text{C}_9\text{H}_{18}\text{O}_9$ ,      (b)  $\text{CH}_2\text{O}$       (c)  $\text{C}_6\text{H}_{12}\text{O}_6$       (d)  $\text{C}_2\text{H}_4\text{O}_2$

6. Which of the following reactions is not correct according to the law of conservation of mass?

- (a)  $2\text{Mg}(s) + \text{O}_2(g) \rightarrow 2\text{MgO}(s)$
- (b)  $\text{C}_3\text{H}_8(g) + \text{O}_2(g) \rightarrow \text{CO}_2(g) + \text{H}_2\text{O}(g)$
- (c)  $\text{P}_4(s) + 5\text{O}_2(g) \rightarrow \text{P}_4\text{O}_{10}(s)$
- (d)  $\text{CH}_4(g) + 2\text{O}_2(g) \rightarrow \text{CO}_2(g) + 2\text{H}_2\text{O}(g)$

### SUBJECT – MATHS

1. Prepare a portfolio file including basic concepts and formula of

- 1- Sets
- 2- Trigonometry
- 3- Complex Number
- 4- Linear inequalities

Also write about 5 mathematician contribution in maths.

2. Solve P.T 1 question paper on A-4 Sheet.

## SUBJECT – BIOLOGY

•Note: Complete these worksheet in a separate notebook in holidays.

Q 1-What is the need for standardized naming (Nomenclature) in biology?

Q 2-Expand these abbreviations "ICBN & ICZN and state their primary functions.

Q 3-According to the rules of Binomial Nomenclature, what does the specific epithet represent, and how should it be written manually?

Q 4-In the name *Mangifera indica* Linn., what does 'Linn.' signify?

Q 5-Briefly explain the difference between these two terms, specifically highlighting the role of evolutionary relationships.

Q 6- Arrange the following in descending order: Family, Kingdom, Species, Order, Class, Genus, Phylum.

Q 7-Which taxonomic category represents the basic unit of classification?

Q 8-Define a 'Genus' and provide an example of a genus containing more than one species.

Q 9-Why is the category 'Phylum' more general (sharing fewer common characteristics) than the category 'Family'?

Q10- Identify the suffix used for "Family" in the plant kingdom (e.g., Solanaceae).

### Worksheet -2 (The biological Classification)

Q- Multiple Choice Question:

- All eukaryotic unicellular organisms belong to  
a. Monera b. Protista c. Fungi d. Bacteria
- The five kingdom classification was proposed by  
a. R.H. Whittaker b. C.Linnaeus c. A. Roxberg d. Virchow
- Organisms living in salty areas are called as  
a.Methanogens b.Halophiles c.Heliophytes d.Thermoacidophiles
- Naked cytoplasm, multinucleated and saprophytic are the characteristics of  
a. Monera b. Protista c. Fungi d. Slime molds
- An association between roots of higher plants and fungi is called  
a. Lichens b. Fern c. Mycorrhiza d. BGA
- A dikaryon is formed when  
a. Meiosis is arrested  
b. The two haploid cells do not fuse immediately  
c. Cytoplasm does not fuse  
d. None of the above
- Contagium vivum fluidum was proposed by  
a. D.J. Ivanowsky b. M.W. Beijerinck  
c. Stanley d. Robert Hook
- Associations between Mycobiont and Phycobiont are found in  
a. Mycorrhiza b. Root c. Lichens d. BGA
- Difference between Virus and Viroid is  
a. Absence of protein coat in viroid but present in virus  
b. Presence of low molecular weight RNA in virus but absent in viroid  
c. Both a and b  
d. None of the above
- With respect to fungal sexual cycle, choose the correct sequence of events  
a. Karyogamy, Plasmogamy and Meiosis

- b. Meiosis, Plasmogamy and Karyogamy
- c. Plasmogamy, Karyogamy and Meiosis
- d. Meiosis, Karyogamy and Plasmogamy

Very Short Answer Question (1 mark each)

1. Nostoc and Anabaena have specialized cells called heterocyst. What is the function of these cells?
2. Which group comprises of single celled eukaryotes only?
3. Which organisms are the chief producers in oceans?
4. Name the fungus which causes disease in wheat (i) rust (ii) smut.
5. Which Ascomycetes has been used extensively in biochemical and genetic work?
6. What is the principle underlying the use of cyanobacteria in agriculture?

Short Answer Question-1 (2 marks each)

7. How are bacteria classified on the basis of their shapes?
8. What is the mode reproduction in bacteria?
9. How are red tides caused and why are they harmful?
10. Viruses and viroids differ in structure and the diseases they cause. How?
11. Which class of kingdom fungi has both unicellular as well as multicellular member?

Thinking ability questions(4 marks)

12. Vinita went to the market along with Roshan, her younger brother bought a packet of mushroom. Roshan thinks that mushrooms are a product of plants.
  - (a) What does Vinita explain?
  - (b) Name any two edible products from this group (scientific name.)
  - (c) What values are displayed by Vinita?

Long Answer Questions (5 mark each)

13. Differentiate between various classes of kingdom Fungi on the basis of their (i) Mycelium, (ii) Types of spores and (iii) Types of fruiting body. Also give two examples for each class.
18. Describe sexual reproduction in Fungi.

#### Worksheet -3 ( Plant Kingdom)

- Q1. What are the differences between artificial and natural system of classification?
- Q2. Define phylogenetic classification systems, numerical taxonomy, cytotoxicology and chemotaxonomy.
- Q3. Give general characteristics of Kingdom Algae & discuss its mode of reproduction also.
- Q4. Name two hydrocolloids obtained from algae.
- Q5. Name two algae from which agar is obtained. give commercial use of agar.
- Q6. Name two unicellular algae rich in proteins & which are used as protein supplements by space travelers.
- Q7. List the name divisions of kingdom Algae & give their characteristics.
- Q8. Explain life cycle of Bryophytes (Mosses).
- Q9. Why are bryophytes called amphibians of Plant Kingdom?
- Q10. What is 'gemma'? Where do you find them?
- Q11. Give schematic representation of life cycle of pteridophyte.

#### Extra Project Work

✓ Make a project file ( Max pg- 15 to 20) from the Chapters of following Units:

1. Unit III: Cell: Structure and Function

OR

2. Unit IV: Plant physiology

OR

3. Unit V: Human physiology

✓ File should include these pages: Your Introduction, Certificate, Acknowledgement, Index, Introduction of your topic, details about project, conclusion, bibliography.

✓ Complete your notes of ch 1,2,3 in your biology notebook.

✓ Make a research file on different kind of dinosaur, and how they are different from virtual dinosaur in movies. Watch Jurassic World: Chaos Theory.

Enjoy Your Holidays!! 😊😊

### **SUBJECT – PHYSICAL EDUCATION**

Q1. Write any game according to your syllabus in Lab manual.

Q2. Make a chart of 'Shath Karma'.