



St. XAVIER'S HIGH SCHOOL
EDUCATION FOR ALL

BANKURA, WB
Affiliation No.: 2430130

Affiliated to CBSE (New Delhi) 10+2 level
School Code: 15720

SUMMER VACATION ASSIGNMENT FOR CLASS-XI-SCIENCE

SUBJECT: ENGLISH

Rordering of Sentences:-

- a) born/geniuses/not/made/are
 - b) the/moon/as/rare/they/blue/are/as
 - c) have/qualities/that/of/training/instruction/or/are/inborn/they/independent
 - d) have/in/been/their/respective/they/trailblazers/fields
- 2) You are Arnit / Arnika. You want to sell your car as you are planning to buy a new one. Draft a suitable advertisement to be published in the vechiles column of a newspaper.
- 3) Draft a poster announcing a 'Book Exhibition' being organised committee, draft a poster inviting people for the mela.
- 4) 'The Portrait of a Lady's, 'The Summer of the Beautiful White Horse', 'Discovering Tut: the Saga Continues'~ form questions from these chapters minimum ten questions from each chapter.

SUBJECT: PHYSICS

INSTRUCTIONS:

1. *There will be two practical notebook- one for ACTIVITY, another for EXPERIMENTS.*
2. *Activities should be written in activity notebook and Experiments should be written in experiment notebook.*
3. *Sample writings will be sent in class group shortly.*
4. *Observation table should leave vacant. Values should be written after doing the practical.*

A. Write the following activities in practical notebook:

Activity No.1- To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm.

Activity no.2- To determine mass of a given body using a metre scale by principle of moments.

B. Write the following experiments in practical notebook:

Experiment No.1- (a) To measure diameter of a small spherical body and (b) to measure internal diameter and depth of a given beaker using Vernier Callipers and hence find its volume.

Experiment No. 2- To measure diameter of a given wire and thickness of a given sheet using screw gauge.

Experiment No. 3- To determine radius of curvature of a given spherical surface by a spherometer.

SUBJECT: CHEMISTRY

1. What is the SI unit of density?
2. What is the difference between precision and accuracy?
3. State Avogadro's law.
4. At NTP, what will be the volume of molecules of 6.022×10^{23} H₂?
5. Calculate the number of molecules present in 0.5 moles of CO₂?
6. Write seven fundamental quantities and their units.
7. Convert 35°C to °F and K.
8. Give one example each of molecule in which empirical formula and molecular formula are i) Same ii) Different
9. Calculate the number of moles in the following masses:
i) 7.85g of Fe ii) 7.9 mg of Ca
10. Calculate the weight of lime CaO obtained by heating 200kg of 95% pure limestone CaCO₃.
11. 4 litres of water added to 2L of 6 molar HCl solution. What is the molarity of the resulting solution?
12. A measured temperature on Fahrenheit scale is 200 °F. What will this reading be on the Celsius Scale?
13. Calculate the molecular mass of the following:
(i) H₂O(ii) CO₂(iii) CH₄
14. Calculate the mass percent of calcium, phosphorus and oxygen in calcium phosphate Ca₃(PO₄)₂.
15. The density of the 3 molal solution of NaOH is 1.110 g mL⁻¹. Calculate the molarity of the solution.
16. Determine the empirical formula of an oxide of iron, which has 69.9% iron and 30.1% dioxygen by mass.
17. Express the following in the scientific notation: 0.0048
18. What is limiting reagent? In a reaction
 $A + B_2 \rightarrow AB_2$
Identify the limiting reagent, if any, in the following reaction mixtures.
300 atoms of A + 200 molecules of B
19. What volume of 10M HCl and 3M HCl should be mixed to obtain 1L of 6M HCl solution?
20. 4 litres of water added to 2L of 6 molar HCl solution. What is the molarity of the resulting solution?

SUBJECT: MATH

1. Solve the example questions from the NCERT book of chapter 1.
2. Write of two activities on notebook.

[pdf of the 2 activities will be send later in your class group.]

SUBJECT: BIOLOGY

A. Prepare a project in A4 sheet on any one of the provided topics:

1. Virus
2. Classification of fungi on the basis of mode of reproduction
3. Economic importance of algae

Instructions for the assignment:

- a) Project should be in handwritten form in A4 sheet.
- b) It should include pictures and diagram.
- c) Cover page, Acknowledgement, Certificate should be in printed form.
- d) The project must include Index, Content, Conclusion and Bibliography.

B. Write the following experiments in practical notebook:

Experiment No.1- To study the structure and working of a compound microscope.

Experiment No. 2- To study one flowering plant (Tomato) belonging to Solanaceae family.

Experiment No. 3- To study osmosis by potato osmometer.

Experiment No. 4- To study plasmolysis in epidermal leaf of Rheo leaf.

Experiment No. 5- To prepare a temporary mount of onion root tip to study mitosis.

SUBJECT: PHYSICAL EDUCATION

Write down about the biography of Baren de Coubertin and his role in Modern Olympics Games?

(Hints: Introduction -His qualification -His achievement -His work on Modern Olympics -use picture etc.)

SUBJECT: COMPUTER SCIENCE

1. Write Python command/instruction/statement to display your name.
2. Write Python command to display your school name, class, and section, separated by “-“.
3. Evaluate the following expressions manually:

(i) $(2 + 3) ** 3 - 6 / 2$

(ii) $(2 + 3) * 5 // 4 + (4 + 6) / 2$

(iii) $12 + (3 * 4 - 6) / 3$

(iv) $12 + (3 * * 4 - 6) // 2$

(v) $12 * 3 \% 5 + 2 * 6 // 4$

(vi) $12 \% 5 * 3 + (2 * 6) // 4$

Evaluate the above expressions by using IDLE as a calculator and verify the results that you got manually.

4. Identify invalid variable names from the following, give reason for each:

int, total marks, S.I., volume, total strength, #tag, tag\$, 9a

5. Find the output of the following code:

(1) `x=3`

`y=x+2`

`x+=y`

`print (x, y)`

(2) `x=-2`

`y=2`

`x+=y`

`y-=x`

`print (x, y)`

(3) `a=5`

`b=2*a`

`a+= a+ b`

`b*=a+ b`

`print (a, b)`

(4) `p=10`

`q=20`

`p*=q/3`

`q+= p+ q*2`

`print (p, q)`

(5) `p=5%2`

`q=p**4`

`r=p//q`

`p+=p +q +r`

`r+=p +q +r`

`q-=p +q*r`

`print (p, q, r)`

(6) `p=21//5`

`q=p%4`

`r=p*q`

`p+=p +q-r`

`r*=p- q+ r`

`q+=p +q`

`print (p, q, r)`

NOTE : ALL THE ASSIGNMENT MUST BE DONE IN A RULED COPY.