



School Code 25073

CBSE Affiliation No. 1630328

BAWA - LALVANI PUBLIC SCHOOL

Summer Assignment 2018-19 Class XI

General Instructions

1. Use A4 sheets for all subjects.
2. All subjects assignments to be compiled and spiral bound.
3. Prepare Index for each Subject.
4. Assignment should be legible and neat.
5. Practical files should be made neat and clean to be assessed as final practical's (Use Evergreen practical file)
6. Pages used for Project file should be of similar size.

Work Education:

As a skill development activity, work an office as a receptionist, cashier in a shop, work in a factory, farm, hospital etc for at least 20 hours during the Vacations. Get a certificate from the employer and paste in on the last page of the holidays assignment.

Bawa-Lalvani Public School, Kapurthala
Grade XI
Holiday Homework (2018 – 2019)

English

1. Design a poster on the topic 'Cashless India'
2. Write a debate in favour or against the topic 'Impact of demonetisation on Indian Society'.
3. Write a letter to the Editor of a national daily expressing your concern on the uncertain economic environment in the country after demonetisation.

Chemistry

(WORKSHEET 1)

TOPIC : SOME BASIC CONCEPTS OF CHEMISTRY

1. State law of multiple proportion?
2. Calculate the percentage composition of each element in sugar.
3. Out of $1m$ and $1M$ which is better to express concentration and why?
4. Calculate the percentage composition of each element in glucose.
5. Calculate the volume at N.T.P occupied by 10^{21} molecules of oxygen
6. What is the molality of a solution which contains 36g of glucose in 250g of water?
7. Differentiate between molarity and molality.
8. Calculate the number of atoms in 0.25 mole of carbon.
9. Calculate the number of moles in 6.022×10^{22} molecules of oxygen.
10. An organic compound has the following percentage composition;
C = 48% , H = 8% , N = 28%. Calculate the empirical formula of the compound.

(WORKSHEET -2)

TOPIC: SOME BASIC CONCEPTS OF CHEMISTRY.

1. What is the S I unit of temperature? Define it.
2. What is the molarity of solution which contains 10g of NaCl in 500mL of water.
3. When does the law of constant proportion fail?
4. Which is more concentrated $1M H_2SO_4$ or $1N H_2SO_4$?
5. Calculate number of moles, molecules and protons in 64 g of O_2
6. What is the molality of ammonia in a solution containing 0.85 g of NH_3 in 100mL of a liquid of density $0.85g/cm^3$?
7. Calculate mole fraction of C_2H_5OH & H_2O in a sample of 15% C_2H_5OH .
8. Calculate the mass of single molecule of oxygen gas.

9. What is limiting reagent ? Explain with a suitable example.
10. Calculate the empirical formula of a compound whose percentage composition is : C=21.9% , H=4.6% and Br=73.4%.

(WORKSHEET -3)
TOPIC : STRUCTURE OF ATOM

1. Which element does not have any neutron?
2. Calculate the mass and charge of one mole of electrons.
3. Calculate the number of electrons which will together weigh one gram.
4. Calculate the total number of electrons present in one mole of methane.
5. Find the total number and the total mass of neutrons in 7mg of ^{14}C .
6. Find the total number and the total mass of protons in 34mg of NH_3 .
7. Calculate the wavelength, frequency and wave number of light wave whose period is 2×10^{-10} sec.
8. Calculate the frequency of emission light radiations of wavelength 616nm.
9. How atomic number, mass number and number of neutrons are related to each other.
10. Calculate the number of protons, neutrons and electrons in ${}_{92}\text{U}^{235}$
11. The number of electrons, protons and neutrons in a species are equal to 18, 16, and 16 respectively. Assign proper symbol of the species.
12. A sodium street light gives off yellow light that has a wavelength of 589nm. What is the frequency and wave number of this light?

PHYSICS

(WORKSHEET-1)

1. A LASER beam aimed at the moon takes 2.56 seconds to return after reflection at moon's surface. Find the radius of lunar orbit around earth.
2. The parallax of a heavenly body measured from two points diametrically opposite on equator of earth is $2'$. If the radius of earth is 6400 km, find the distance of heavenly body from the centre of the earth in AU.
When the planet Jupiter is at a distance of 824.7 million kilometers from the Earth, its angular diameter is measured to be $35.72''$ of arc .
3. Calculate the diameter of Jupiter?
4. Write the number of significant figures in the following : (i) 0.007 m^2 (ii) $2.64 \times 10^{24} \text{ kg}$ (iii) 0.2370 g cm^{-3} (iv) 6.206 J (v) 7.032 Nm^{-2} (vi) 0.0005062 m^2
The length, breadth and thickness of a metal sheet are 4.234 m , 1.005 m and 2.01 cm respectively . Find the volume of the sheet to correct number of significant figures.
5. A physical quantity P is given $P = a^2 b^3 / (\sqrt{c} d)$. The percentage errors in a , b , c and d are 1% ,3% ,4% and 2% respectively .Find the
- 6.

percentage error in P .

7. The length and breadth of a rectangle are (5.7 ± 0.1) cm and (3.4 ± 0.2) cm . Calculate area of the rectangle with error limits.
Add 17.35 g , 25.6 g and 8.498 g and write the result with the correct number of significant figures
8. Calculate the area enclosed by a circle of diameter 1.06 m to correct number of significant figures.
9. The rate of flow V of liquid flowing through a pipe of radius r and a pressure gradient (p/l) is given by equation : $V = (\pi pr^4) / (8 \eta l)$.
10. Check the dimensional consistency of this equation where η is the coefficient of viscosity .
11. Find the value of x in the relation $Y = (T^x \cdot \cos \theta \cdot \tau) / L^3$, where Y is Young's modulus , T is time period , τ is torque and L is length.
12. A planet moves around the sun in nearly circular orbit . Its period of revolution T depends upon : (i) radius (r) of orbit (ii) mass M of the sun and (iii) the gravitational constant G. Show dimensionally that T^2 is proportional to r^3 .

(WORKSHEET-11)

1. Which is the most accurate clock?
2. Which quantity in a given formula should be measured most accurately?
3. (i) Can there be a physical quantity which has no units and no dimensions. Give examples.
(ii) Can a quantity have dimensions but still have no units ? (iii) Can a quantity have units but still be dimensionless? Give examples.
4. Name any three physical quantities having the same dimensions. Also write the dimension.
5. How can random error be minimized?
6. Differentiate between accuracy and precision.
7. Which of the following length measurement is most accurate and why? (i) 4 .0 cm (ii) 4.00 cm (iii) 4.000 cm
8. Name the device used for measuring the mass of atoms and molecules.
9. Assuming that the mass M of the largest stone that can be moved by a flowing river depends upon the velocity v, the density of water ρ and the acceleration due to gravity . Show that M varies with the sixth power of the velocity of flow.
11. The value of G in cgs system is 6.67×10^{-8} dyne $\text{cm}^2 \text{g}^{-2}$. Calculate the value in SI system.
12. Find the value of a force of 100 N on a system based upon the meter, the kilogram and the minute as the fundamental units.
Solve all the NCERT Questions of Physical world and measurement?

Biology

Section-A (Worksheet)

1. Draw a diagram of a life cycle of an angiosperm.
2. What are the characteristic features of euglenoids? Draw a well labelled diagram of Euglena.
3. What do the terms phycobiont and mycobiont signify?
4. What is importance of diatoms and dinoflagellates?
5. Explain the following terms :-
 - a) Antheridium
 - b) Sporophyll
6. Name an alga which is used in laboratory culture media.
7. Give difference between following :-
 - a) Gymnosperms and Angiosperms
 - b) Liverworts and Mosses
8. Name the tallest gymnosperm .
9. Which is the smallest autonomous organism?
10. State important uses of following:
 - a) Heterotrophic bacteria
 - b) Heterocysts
11. Draw a diagram of Funaria.
12. A virus is considered as a living organism and an obligate parasite when inside a host cell. But virus is not classified along with bacteria and fungi. What are the characters of virus that are similar to non-living objects?

Section-B (Practical File Work)

Section-C (Project file on Herbarium)

Accountancy, Business Studies and Economics.

Note: Each student is required to prepare two projects. Roll No. 1-16 will prepare project No.1 and 2, Roll No.17 to 32 will prepare project no.3 and 4, rest of the students from Roll No. 33 to 49 will prepare project no. 5 and 6. Use A4 ruled sheets.

1. **Prepare Income statement of Indian Govt. by including Revenue and Expenditure of Govt affected through Demonetization.**
(Hints: Using Bar Diagrams or Pie Charts etc. to show Income generated through collection of black money and cost of production and distribution of new currency notes.)
2. **Prepare project on Impact of Demonetization on EXIM (Export and Import) policy / Foreign Trade Policy.**
(Hints: Exchange rate of Indian currency, Export and Import growth and Foreign Direct Investment in India to be elaborate.)

3. **Make a report on result of Demonetization (Success / failure) on following countries:**

- (a) Australia
- (b) Ghana
- (c) North Korea
- (d) Pakistan
- (e) Zimbabwe
- (f) India

(Hints: Comparison of causes and Impact, volume of increase in cash less transactions and increase in the number of Tax Payers to be discussed) Use charts/graphs/pictures/flow charts to explain.

4. **Prepare Income statement of Govt (before and after demonetization)of following countries:**

- (a) Australia
- (b) Ghana
- (c) North Korea
- (d) Pakistan
- (e) Zimbabwe
- (f) India

(Hints: Including Revenue and Expenditure of Govt affected through Demonetization, Using Bar Diagrams or Pie Charts etc. to show Income generated through collection of black money and cost of production and distribution of new currency notes.)

5. **Draw / Print/Collect old and new Currency before and after demonetization of following countries:**

- (a) Australia
- (b) Ghana
- (c) North Korea
- (d) Pakistan
- (e) Zimbabwe
- (f) India

Also discuss about security features introduced in new currency in detail.

6. **Discuss the changes on Budgetary Revenue after Demonetization in India by using diagrams and graphs.**

(Hints: Increase in Filing Income Tax Return, Increase and decrease in bank deposits also to be shown)

Home Science

1. Human Development: Life span approach
 - (i) Visit a child care centre. Write a report on facilities and activities.
 - (ii) Select a child with special needs in neighborhood. Write a report on his/her special requirements related to :
 - a. Care
 - b. Education
 - c. Physical infrastructure needed
 - (iii) Observation of any two children in different stages of age in the neighborhood and report on their activities and behavior
2. Community Development And extension
 - (i) Plan message for “respect For Girl Child”, “women empowerment”, Cleanliness of Public Spaces” using different modes of communication.
 - (ii) Make a leaflet or pamphlet using original slogan for consumer education on any topic.

Painting

1. Prepare two sheets on natural forms like plants, vegetables, fruits and flowers with pencil shading.
2. Prepare two sheets on demonetisation with poster colours.
3. Draw three sketches from life and nature with pencil shading.
4. Prepare two sheets on geometrical design with poster colours.

Computer Science

Practical file: (Buy blank practical file from market preferably Classmate or Evergreen. Write SQL Queries with suitable data on right side with pen and draw results of queries in tabular form with pencil on left side.)

1. Create database and use that database.
2. Delete database.
3. Create a student table with student id, name and marks as attributes where the student id is the primary key.
4. Insert the details of a new student in the above table.
5. Delete the details of a particular student in the above table.
6. Use the select command to get the details of the students with marks more than 80.

POLITICAL SCIENCE

1. Make a list of countries that have tried demonetization.
2. Make a list of countries that have tried demonetization and were successful.
3. Make a list of countries that have tried demonetization but failed.
4. At last compare the concept of demonetization with others countries and make a report on it.
5. Demonetisation alone cannot stop black money in India, more steps needed: Write UNO’s report on it .

SOCIOLOGY

Prepare a research based project on the topic “Demonetization”.

The following Components should be covered.

1. Cover page
2. Index
3. Acknowledgement
4. Introduction
5. Statement of purpose
6. Research questions
7. Methodology
8. Presentation of Secondary evidences such as news paper, article, Magazines and so on.

Mathematics

1. Find the degree measured corresponding to following radian measure:
(i) $\left(\frac{\pi}{8}\right)^c$ (ii) $(-2)^c$
2. The angles of a triangle are in A.P. The number of grade the least, is to the number of radians in the greatest as $40:\pi$. Find the angle in degrees.
3. Find the angle between the minute hand of a clock and hour hand when the time is 7:20 A.M.
4. If $\cos \theta + \sin \theta = \sqrt{2} \cos \theta$ then prove that
 $\cos \theta - \sin \theta = \sqrt{2} \sin \theta$
5. Find the sign expression $\sin 100^\circ + \cos 100^\circ$.
6. Sketch the graph of $y=3\cos 2x$.
7. Find the value of $\tan \frac{19\pi}{3}$, $\cos 270^\circ$.
8. Prove that $\sin 18^\circ = \frac{\sqrt{5}-1}{4}$
9. The moon distance from the earth is 360,000kms and its diameter subtend an angle of $31'$ at the eye of observer. Find the diameter of moon.
10. In triangle ABC prove that $\cos\left(\frac{A+B}{2}\right) = \sin\left(\frac{C}{2}\right)$
11. Prove that $\cos 18^\circ - \sin 18^\circ = \sqrt{2} \sin 27^\circ$

12. If $A+B=\frac{\pi}{4}$ then prove that $(\cot A-1)(\cot B-1)=2$.
13. Find the length of an arc of a circle of radius 5cm subtended a central angle measuring 15° .
14. Find the radian measured corresponding to following degree measure:
 (i) $5^\circ 37' 30''$ (ii) 520°
15. If $\tan A=\frac{1}{7}$, $\tan B=\frac{1}{3}$ then show that $\cos 2A=\sin 4B$.
16. Prove by principle of mathematical induction that for all n belongs to natural numbers:
 $1+4+7+\dots+(3n-2)=\frac{1}{2}n(3n-1)$.
17. For all positive integers n, prove that
 $\frac{n^7}{7}+\frac{n^5}{5}+\frac{2n^3}{3}-\frac{n}{105}$ is an integer.
18. Prove that
 $1+2+3+\dots+n < \frac{(2n+1)^2}{8}$
19. Prove that number of subsets of a set containing n distinct elements is 2^n for all n belongs natural numbers.
20. Prove that $x^{2n-1}+y^{2n-1}$ is divisible by $x+y$ for all $n \in \mathbb{N}$

Punjabi

ਹੇਠ ਲਿਖੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਲਿਖੋ।

(i) ਨੋਟਬੰਦੀ ਦੇ ਪੱਖ ਅਤੇ ਵਿਰੋਧ ਵਿੱਚ ਦਲੀਲਾਂ ਦਿੰਦੇ ਹੋਏ ਤੱਤ ਸਾਰ ਵੀ ਲਿਖੋ ।

(ii) ਨੋਟਬੰਦੀ ਦਾ ਸਭ ਤੋਂ ਜਿਆਦਾ ਬੁਰਾ ਪ੍ਰਭਾਵ ਕਿਸ ਵਰਗ ਉੱਤੇ ਪਿਆ ਅਤੇ ਕਿਵੇਂ ਇਸ ਵਿਸ਼ੇ ਉੱਤੇ ਪ੍ਰੋਜੈਕਟ ਤਿਆਰ ਕਰੋ।

ਵਿਸ਼ੇਸ਼ ਨੋਟ- ਰੋਲ ਨੰਬਰ-5(11B),29(11B),13, (11B)21(11c) ਨੋਟਬੰਦੀ ਦੇ ਪੱਖ ਵਿੱਚ ਵਿਚਾਰਾਂ ਦੀ ਪੇਸ਼ਕਾਰੀ ਕਰਨਗੇ।

ਰੋਲ ਨੰਬਰ-8(11B),10(11B),40(11B),2(11B),14(11B),16(11B) ਨੋਟਬੰਦੀ ਦੇ ਵਿਰੋਧ ਵਿੱਚ ਆਪਣੇ ਵਿਚਾਰਾਂ ਦੀ ਪੇਸ਼ਕਾਰੀ ਕਰਨਗੇ।

Music Vocal (Practical)

1. qwnpury ky iviBñn AMg EMv qwr ko imlwny kI iviD ky bwry myM ivvrX dyM[
2. qIn qwl EMv }pk qwl kw pircX dyM qQw Ekgux qQw dugux kw Tykw ilKyM[
3. rwg mwlkOMs kw pircX(ivvrX)Ævrilip,Awlwp qQw qwnyM ilKyM[

Music Vocal (Theory)

1. AlMkwr qQw vxé ky bwry myM ilKyM[
2. kx EMv gmk kw ivvrX dyM[
3. rwgoM ky smX isùWq myM 'rwgoM kI qIn vgé 'yxI' kw a-lyK kryM[
4. rwg smX myM 'm' kw mhœv bqWEM[
5. pUvwéMgvwdI rwg AOr aÈqrwMgvwdI rwg ky bwry myM ilKyM[

Physical Education

Practical 1 Label diagram of 400 M Track and field with computation

Practical 2 Computation of BMI from family or neighborhoods and graphical representation of the data

Practical 3 Explanation and list of current national awardees (Dronacharya, Arjun Award,Rajivgandhi khel ratan award)