1. Read THE CANTERVILLE GHOST by Oscar Wilde during summer vacations and make a project based on it highlighting the following:
   1. Humour and satire in the novel
   2. Role of the ghost
   3. Charactersketch of any four characters
   4. Design an attractive book cover using waste material

CLASS – XI
SOCIAL SCIENCE

HISTORY
Project:-
1. Make a clay tablet and inscribe a trade transaction of ancient Mesopotamia.
2. On the outline map of the world locate and label the centres and cities marked on page number 18, 30, 74, 82 and 133 (source-NCERT Book, Class XI History).
3. Revise chapter-1 and chapter-6 NCERT XI History.
4. Read the novel'Trade Winds to Meluha' (Author Vasant Dave).

POLITICAL SCIENCE
Create a Model/Chart/Project on any of the following:-
1. Waste treatment
2. Waste Management.
3. Industrial Waste Management.
4. Dividing household waste into biodegradable and non-biodegradable.
5. Waste disposal
6. Compost.
7. Reuse, Recycle and Reduce.
Note:- You can also include case study in your project.

GEOGRAPHY
Make a project on Urban Waste disposal problem in India include 2 case studies
1. Cities where urban waste is not disposed off effectively.
2. Where waste has been efficiently utilized.
3. Suggest ways by which you, community and govt. can make a difference in efficiently utilizing waste.
Note :- Complete the assignment given.

CLASS – XI
ACCOUNTS

5. Solve the exercise from NCERT as well as T.S Grewal’s for the following chapters in a separate register
   - Accounting Equation
   - Journal

CLASS – XI
BUSINESS STUDIES

➢ Write the notes for short answer and long answer questions from NCERT of chapter 1 and chapter 2
➢ Prepare a chart on 'Waste Management'
➢ Prepare the PPT strictly as per the instructions given in the class.

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<td>12, 24, 36, 48, 60</td>
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</tbody>
</table>

ABOVE PPT AND CHART CARRIES WEIGHTAGE OF 5 MARKS IN 1ST TERM EXAMINATIONS

CLASS – XI
ECONOMICS

• Prepare a PPT (10 slides) on any one of the topics listed in the course content. A hard copy also has to be prepared with an appropriate cover.
• Prepare for class test on chapter 1 of Indian Economic Development.

CLASS – XI
HOME SCIENCE

1. Select some recipes of some snacks & identify the nutrients present in them (10-12 recipes) & paste pictures.
2. Select 4,5 good designs of rangoli.
3. Paste 4-5 flower arrangement pictures. (refer to Pg. 366)
4. Perform experiment 3 (Pg. 372).

CLASS – XI
PHYSICS – XI B – ASSIGNMENT - I

Integration (questions for practice)

1. \( \frac{dy}{dx} = (6t-2t^2) \) dt
2. \( \frac{dy}{dx} = 2t(3-t) \) dt
3. The distance of a particle moving in one dimension under the action of a constant force is related to time t by the equation \( vx + 3 \); where x is in metres and time t is in seconds. Find the displacement of the particle when velocity is zero.
4. \( t = ax^2 + bx \) where x is the distance and t is the time. Express acceleration in terms of velocity.
5. The acceleration of a boat after the engine is switched off is given by \( \frac{dv}{dt} = -kv^3 \), where k is a constant. If \( v_o \) is the velocity at cut off find the velocity at time t after cut off.
6. Differentiate the following w.r.to x:
   \[ y = 500 \]
   \[ y = x^6 \]
7. Velocity of a mass \( m \) is given by \( v = \left( \frac{t^3}{3} + \frac{t^2}{2} + 1 \right) \)
   Calculate the force acting on it at \( t = 3 \) s
8. A body starts from rest with uniform acceleration. Its displacement after \( t \) seconds is given by \( x = 5 + 6t + 7t^2 \).
   Calculate the magnitude of its i) initial velocity ii) velocity at \( t = 3 \) s iii) acceleration iv) displacement at time \( t = 5 \) s. What can you say about this motion
9. Give at least two practical examples where you can use integral calculus
10. In the above also mention which of the physical quantities will be dependent and independent variables

CLASS – XI

PHYSICS – XI  B – ASSIGNMENT-II

1. Derive the 3 equations of motion using suitable graphs.
2. Deduce the equation for the distance travelled by anybody moving with uniform acceleration \( a \) in the last second of its motion. Here \( u \) and \( v \) stand for the initial velocities respectively before and after a time interval \( t \)
3. For a constant value of \( u \), the initial velocity 2 m/s (say) draw a graph between \( v = u + at \) and for the same values \( s = ut + \frac{1}{2}at^2 \) (Plot the graphs in a graph paper)
4. Based on the above can you say as to what are the shapes of the graphs for the following equations
   \( x = 2t^2 + 3 \)
   \( x = 10 - 2t \)
5. Can you give the nature of the motion described by the above equations as to uniform or non-uniform motion with reason?
6. Do they represent accelerated motion or not? In case accelerated motion what is the acceleration in each case?
7. Differentiate the following with respect to \( t \)
   a. \( 20 = 5t^2 + 3t \) find velocity and acceleration (here \( x \) is the displacement in m in a time \( t \) seconds)
   b. \( x = 9t^2 + 18t + 6 \) find velocity \( v \) and acceleration \( a \) at \( 2s \) here \( x \) is the displacement in m in a time \( t= 2 \) seconds
   c. \( x = 3t^2 \) (find \( v \) and \( a \) at \( t = 1s \))
   d. \( x = -3t + 7 \) (find \( v \) and at \( t = 1s \))
   e. \( t = \sqrt{x} - 4 \) (find \( v \) and at \( t= 1s \))
8. The velocity time relation of an electro starting from rest is given by \( v = kt \) where \( k = 2 \) m/s\(^2\). Calculate the distance traveled in 3 s
9. The distance \( x \) of a particle moving in one dimension under the action of a constant force is related to time \( t \) by the equation \( t = \sqrt{x} + 3 \) where \( x \) is in m and \( t \) is in seconds. Find the displacement of the particle when the velocity is zero.
10. Given \( t = ax^2 + bx \) where \( a \), \( b \) and \( c \) are constants and \( x \) is the distance express instantaneous acceleration in terms of instantaneous velocity
1. In \((P + a/V^2)(V - b) = RT\), what are the dimensions of \(a\) and \(b\)?

2. The force \(F\) is given in terms of time and displacement \(y\) by the equation

\[ F = A \cos(By) + C \sin(Dt) \]

Find the dimensions of \(B/D\).

3. Which of the following equations are dimensionally correct? i) \(m = m_0/(1-V^2/c^2)\) ii) \(m = m_0/(1-V/c^2)\) iii) \(m = m_0/(1-V^2/c^2)\) iv) \(m = m_0/(1-V^2/c^2)\)

4. How many significant figures are there in the following: a) 5.627920 \(\times\) 10^2 \(m^3/s\), b) 6.07920 s

5. How many significant figures are there in \(P = 0.0030\ m, Q = 1.40\ m\) and \(R = 8000\ m\)?

6. In \((P + a/V^2)(V - b) = RT\), what are the dimensions of \(a\) and \(b\)?

7. Find the value of Stefan's constant in SI units knowing its value in cgs system is \(\sigma = 5.67 \times 10^{-8}\ erg\ s^{-1} cm^{-2}\ K^{-4}\)

8. Check the correctness of the formula \(v = (1/\lambda)(\sqrt{k/d})\) where \(v\) is the velocity, \(\lambda\) the wavelength of the wave and \(d\) the density of the medium, \(k\) modulus of elasticity through which the wave propagates.

9. If one m, one kg and one minute are taken as fundamental units, the magnitude of a force is 36 units. What is the value of this force in cgs system?

10. The centripetal force is given by \(F = mv^2/r\). The mass \(m\), velocity \(v\) and radius \(r\) of the circular path of an object are \(0.5\ kg, 10\ m/s\) and \(0.4\ m\) respectively. If \(m, v\) and \(r\) are measured to accuracies of \(0.005\ kg, 0.01\ m/s, and 0.01\ m\) respectively, find the percentage error in force acting on the body.

11. A body of mass \((17.98 \pm 0.6)\ g\) has a volume of \((2.87 \pm 0.3)\ cm^3\). What is the density of the body?

12. The side of a cube is measured as \((11.3 \pm 0.1)\ cm\). What is the volume \(V\) of the cube?

13. The resistance \(R_1 = 200 \pm 6\ ohm\) and \(R_2 = 100 \pm 4\ ohm\) are connected a) in series, b) in parallel. Find the equivalent resistance of the i) the series combination and ii) parallel combination. Give your answer with limits of error expressed in percentage.

14. Which of the following are correct: i) \(y = a \sin(2\pi t/T)\) ii) \(y = a \sin(2\pi t/T + \pi)\) iii) \(y = a \sin(2\pi t/T - \pi)\) iv) \(y = a \sin(2\pi t/2T)\)

15. Find the dimensions of \(C\) in the following equation where \(x, v\) and \(a\) are displacement, velocity and acceleration respectively: \(x = vt + \frac{1}{2}at^2/C\)

16. How many significant figures are there in \(P = 0.0030\ m, Q = 2.40\ m\) and \(R = 3000\ m, S = 1.2 \times 10^5\ m^3/s\)?

17. How many significant figures are there in the following: a) 5.627920 \(\times\) 10^8 \(m^3/s\), b) 6.07920 s

18. The force \(F\) and density \(d\) are related by \(F = \alpha/(\beta + d)\). Find the dimensions of \(\alpha\) and \(\beta\)

19. What is the value of a force of 100 N on a system which has metre \(m\), kg and minute as the fundamental units?

20. Check the correctness of the formula of the Reynolds's number \(= \rho v d/\eta\) where \(v\) is the velocity, \(\rho\) the density of the medium, \(d\) the diameter of the tube through which a liquid flows and \(\eta\) is the viscosity of the liquid.

21. If one m, one kg and one minute are taken as fundamental units, the magnitude of a force is 36 units. What is the value of this force in cgs system?

22. The centripetal force is given by \(F = mv^2/r\). The mass \(m\), velocity \(v\) and radius \(r\) of the circular path of an object are \(0.5\ kg, 10\ m/s\) and \(0.4\ m\) respectively. If \(m, v\) and \(r\) are measured to accuracies of \(0.005\ kg, 0.01\ m/s, and 0.01\ m\) respectively, find the percentage error in force acting on the body.

23. A thin wire has a length of 21.7 cm and radius of 0.46 mm. What is the volume of the wire to correct significant figures.

24. The length and breadth of a rectangle are measured to be \((2.3 \pm 0.2)\) cm and \((1.6 \pm 0.1)\ cm\). Calculate the area of rectangle with error limits.

25. Calculate focal length of \(f\) of a spherical mirror from the following observations: object distance \(u = (50.1 \pm 0.5)\) cm and image distance \(v = (20.1 \pm 0.2)\) cm. Given \(1/f = 1/u + 1/v\) in case of mirror. Give your answer with limits of error expressed in percentage.
HOLIDAY HOMEWORK
CLASS-11A,B
(Refer the text book for atomic masses of elements)

1. How many moles of atoms of each element is present in 2 moles of the BaS$_2$O$_4$, Cu(C$_2$H$_3$O$_4$)$_2$
2. Calculate the Molecular mass of a) Ca$_3$(PO$_4$)$_2$ b) Na$_2$CO$_3$10H$_2$O
3. Calculate the mass of 1 atom of hydrogen.
4. Calculate the volume of 1 g of He gas at STP
5. How many atoms of each kind are there in 1.26 g of (COOH)$_2$2H$_2$O
6. A carbon compound has 50% carbon and rest oxygen. The molecular mass of the compound is 290. Determine its molecular formula
7. Calculate a) mass of MnO$_2$ b) volume of solution of HCl of density 1.12 g/ml containing 40% by weight of HCl needed to produce 1.78 litres of Cl$_2$ at STP.
MnO$_2$ + 4HCl $\rightarrow$ MnCl$_2$ + 2H$_2$O + Cl$_2$
8. A sample of impure sulphur weighing 10 g produced 14.5 g MgS when heated with Mg. Find out the purity of the sample of sulphur. Mg + S $\rightarrow$ MgS
9. 0.7M solution of KOH has 38% by weight of KOH. Find its density and also the volume required to make 100 ml of 0.5M solution.
10. What is the final concentration of the solution made by mixing 50 ml of 0.5M H$_2$SO$_4$ solution and 75 ml of 0.25M H$_2$SO$_4$ solution

Project on Waste Management