English:

1.As the head boy/ head girl of your school you are organising a Career Counselling Session for std XI and XII std students of your school.Write a notice giving details of it to be displayed on your school notice board.

2.Suppose you are a member of blood bank society.You have been asked by the president of the society to organise a blood donation camp.Write a notice urging the people to come in large numbers for this noble cause.Mention date,time and venue

3.You are Abhinav/Abha.You have planned a 2 week course to be arranged to help the children of your Group Housing Society at Kanpur to acquire the oral communication skills.

Prepare a notice for the Society's Notice board , stating the objectives of the course , giving necessary details of the course and requesting the children of the society to join the course.

Answer the following questions:-

1. Describe the changing relationship between the author and his grandmother.Did their feelings for each other change?
2. Would you agree that the author's grandmother was a person strong in character? If yes, give instances that show this.
3. The grandmother herself was not formally educated but was serious about the author's education.How does the text support this.
4. Did the boys return the horse because they were conscience –stricken or because they were afraid?
5. Relate some of the humorous incidents in the story .Which incident do you find most amusing and why?
6. Comment on the role of Aram ,the narrator, in the story .

Maths:

Q1. If $m \tan(\theta-30°) = n \tan(\theta+120°)$, then show that $\cos2\theta = (m+n) / [2(m-n)]$

Q2. If $\sin\theta = n \sin(\theta +2\alpha)$, then prove that $\tan(\theta+\alpha) = [(1+n)/(1-n)] \tan\alpha$

Q3. If $\sin2A = \lambda \sin 2B$, prove that $\tan(A+B) / \tan(A-B) = (\lambda+1) / (\lambda-1)$

Q4. If α and β are the solutions of the equation $a \cos\theta + b \sin\theta = c$. then show that $\cos(\alpha-\beta) = (a^2 – b^2) / (a^2 + b^2)$

Q5. Prove that $\tan8\theta – \tan6\theta -\tan2\theta = \tan8\theta \tan6\theta \tan6\theta \tan2\theta$

Q6. Prove that $\cos4x = 1- 8 \sin^2x \cos^2x$.

Q7. Find the value of $\sin 18°$

Q8. Find the value of $\cos 36°$

Q9. Find the value of $\tan(\pi/8)$.

Q10. If sum of four angles be π, prove that the sum of the products of their cosines taken two together is equal to the sum of their sines taken similarly.

Physics:

1. If $F = ax + bx^2 + \frac{c}{d-t}$, Where F is force, x is distance, t is time then find the dimension of a, b, c and d.

2. If area A, velocity v and density ρ are the fundamental quantity then using them find dimension of force.

3. Convert universal gravitational constant G = 6.67 x 10⁻¹¹ in S.I. units into respective cgs system of unit.

4. Find the value of 10 joule on a system having 100 g, 10 cm and 30 s as a fundamental unit.

5. $(P + \frac{a}{V^2})(V - b) = RT$, where P is pressure, V is volume, R is gas constant and T is temp.

6. $P = \frac{a - t^2}{bx}$. Where P = pressure, x is distance and t is time. Write dimension of a/b.

7. Given that $h = \frac{2T\cos\theta}{r^2\rho g}$. where T =surface tension, r = radius, ρ = density and g is acceleration due to gravity.

8. A jet of water of cross-sectional area 'a' impinges normally on a stationary flat with velocity 'v'. If ρ is the density of water, then determine by dimensional analysis the expression for the force F exerted by the jet of water on the plate.

9. If the depth 'd' to which a bullet of kinetic energy 'K' can penetrate any body of elasticity 'E', using the method of dimension find a relation among these quantities.

10. A physical quantity P is related to four observable a, b, c and d as $P = \frac{a^3 b^2}{\sqrt{cd}}$. find % error in P if % error in a, b, c and d are 1%, 2%,3%, and 2% respectively.

11. Two resistances $R_1 = (6 \pm 0.2)$ ohm and $R_2 = (8 \pm 0.6)$ ohm. Express equivalent resistance when they are connected in parallel.

12. The dimensional formula of a physical quantity X is M⁻¹L³T⁻². The error in measurement of M, L and T are 2%, 3% and 4%. Find the maximum % error in X.

13. During an experiment to find the value of g using simple pendulum given that $T = 2\pi\sqrt{\frac{L}{g}}$, if L = 90 cm and time for 20 vibrations is 36 s. Find the % error in measurement of g, if length is measured to an accuracy of 0.1 cm and time to 0.2 s .

14. In an experiment, the angles are required to measured by using an instrument whose 29 divisions of the main scale exactly coincide with 30 divisions of the Vernier scale. If the small division of the scale is 0.5^0 , then find the least count of the scale.

15. Water drops fall from a tap 5 m below at regular interval of time, the first drop strikes the floor when the fifth drop begins to fall. Find the height at which the third drop will be from the ground when first drop strikes the floor.

16. A balloon is at a height of 40 m from the ground and ascending with a velocity 10 m/s. A bag of 5 kg weight is dropped from it. When will the body reach the surface of earth.

17. The position 'x' of a particle varies with time as given by $= at^2 - bt^3$. At what time the acceleration of the particle will be equal to zero.

18. A particle moving along a straight line has an acceleration of $(3t - 4)$. Find the displacement of the particle from the origin when time t = 3s.

19. Velocity of a particle moving along a straight line at any time t is given by $v = \cos\frac{\pi t}{3}$.
Find the distance travelled by the particle in the first two second.

20. A particle is moving with a velocity $v = 3 + 6t + 9t^2$. Find the displacement of the particle in the time interval   t = 5 s to t = 8 s.

21. An object moving with a speed of 6.25 m/s is decelerated at a constant rate of
$a = -2.5\sqrt{v}$, where v is the instantaneous speed. Find the time taken by the object to come to rest.

Chemistry:

1.Calculate the molecular mass of the following

(a)H_2O (b)CO_2 (c)CH_4

2.Calculate the mass percent of different elements present in sodium sulphate.

3. What do you mean by significant figures? Give two examples.

4. How much copper can be obtained from 100g of copper sulphate?

5. How a 0.50 mol and 0.50 M sodium carbonate different?

6. Calculate the number of atoms in 1) 52 moles of argon 2) 52g of helium?

7. Calculate the molarity of a solution of ethanol in water in which the mole fraction of ethanol is 0.040?

8. Calculate the concentration of nitric acid in moler per litre in a sample which has a density 1.41g per ml.

   And the mass percent of nitric acid in it is 69%.

9. Determine the empirical formula of an oxide of iron which has 69.9 % iron and 30.1% di oxygen by mass.

10. Calculate wave number and frequency of yellow radiation having wave length 5800 A^0

Biology:

Investigatory project on the respective syllabus.It must include case study

Biotech:

1. To collect articles from newspaper or science magazines on recent advent in genetic engineering.

Computer Science:

1) What is the difference between hardware, software and firmware?
2) What is the difference between the RAM and ROM?
3) How analog computers are different from digital computers?
4) What is the full form of virus? Name any two antiviruses
5) What is an IPO cycle?
6) Differentiate between Application software and system software give example.
7) Explain the need of Operating System.

8) Differentiate between Compiler and Interpreter.
9) How many magabytes make 1 terbyte?
10) What are the different types of computers? Expain each of them in detail.
11) Explain the different generation of computers on the basis of Hardware software and characteristic .

12) Write full forms of the following :-
   a. ISCII b.ENIAC c.PACE d.ANURAG e.C-DAC
13) Convert the following:
   a. $(367)8$ to $(?)2$
   b. $(11101010.1010)2=(?)10$
   c. $(3BD)16=(?)2$
   d. $(23.25)8=(?)10$
   e. $(3A7)16 \quad =(?)8$
   f. $(1110101)2=(?)10$
   g. $(2352)10 \quad =(?)16$
   h. $(DCAB)16 \quad =(?)8$
14) Arrange the following as per the increasing order of the memory.
   2^{10} GB , 1 MB, 2^{10} bytes, 1PB

Accountancy:

(1) make power point presentation on G.S.T
(2) Add audio and video if possible.
(3) Add related pictures.
(4) Learn the Notes and solve the objectives,short questions and HOTS given / dictated in the class.

Business Studies:

1. Make a powerpoint presentation either on types of business activities or types of human activities.
   a. It should be submitted in a pen drive.
   b. It should contain minimum 15 slides and maximum 25 slides.
2. Answer the following questions in your notebook.
   a. "Industry and Commerce are interchangeable terms". Do you agree with this statement?
   b. Business involves a series of dealings. Name and explain the characteristic of business being highlighted here.
   c. In a market, one trader lowers the price of his articles to increase the sale. The other traders are also bound to do the same due to competition. Identify and explain the cause of risk highlighted in the given case.
   d. List three professions, professionals and their professional bodies.
   e. Why is innovation an important objective of business?
3. Go through the miscellaneous case studies given in your textbook and write their answers in your notebook.

History /Civics:

1. Prepare a PPT on Mesopotamian civilization and show that it was one of the most advanced civilizations of that period. (30slides) and e-mail it to History teacher.

Geography:
Make a project on DISASTER MANAGEMENT which includes following points to be discussed.
   o Name

- o Acknowledgement
- o Index with page number
- o Introduction
- o Types
- o Select any two disaster and explain with pictures
- o Disaster management definition
- o Disaster management cycle
- o Before / after disaster
- o Prevention or Mitigation
- o Conclusion
- o Bibliography

Economics:

1. "The Government and policy makers use statistical data to formulate suitable policies of economic development". Illustrate with examples.
2. " Statistical methods are no substitutes for common sense". Comment.
3. Discuss the importance of statistics in
   a) Economic planning
   b) Business
   c) Budgeting
   d) The study of market structure.
4. How far economics is a study of ordinary activities of life? Discuss.
5. How far statistics provides the values for making wise decisions in the phase of uncertainty?
6. What are your reasons for studying economics?
7. "Subject matter of statistics includes five stages in it". Comment.

Hindi:

1 आधुनिक काल के दो गद्य लेखकों के व्यक्तित्व एवं कृतित्व पर एक प्रोजेक्ट परियोजना बनाइए ।

2 भक्ति कालीन दो कवियों के व्यक्तित्व एवं कृतित्व पर एक प्रोजेक्ट परियोजना बनाइए ।

3 किसी एक विषय पर संपादकीय लेख लिखें ।

 क दिल्ली : प्रदूषण नगरी

 ख महाशक्ति के रुप में उभरता भारत

Physical Education:

1) Define physical education and write ten definitions of ten different writers.
2) Write aims and objectives of physical education.
3) Enlist the courses in physical education.
4) What are the careers in physical education. Discuss in brief.
5) Discuss the changing trends in physical education in India.
6) What do you mean by soft skills? Discuss any five soft skills which are required for career in the field of physical education.
7) Write shorts notes on the following.
   a) Teaching career in physical education.
   b) Coaching career in physical education.

     c) Health related careers.
     d) Administration related career.
     e) Performance related careers.
     f) Careers in communication media.
     g) Sports journalism.

8) What is Olympic movement? Write in detail.
9) Write about the Olympic flame.
10) Write short note on Olympic flag.
11) Briefly explain about international Olympic committee.
12) Explain the origin of ancient Olympic games.
13) Explain the origin of morden Olympic games.
14) Elucidate about the development of values through Olympic movement.
15) Enlist the sports award and explain about any one award in details.
16) Discuss about the organizational set up of CBSE sports.
17) What is AAHPER test? Write in detail with diagram.