

HOLIDAY HOMEWORK FOR SUMMER VACATION-2018

CLASS-12TH

ENGLISH

Questions

1. select four unseen passages and frame questions following board pattern.
(4 mcq, 6 vsa type questions, two vocabulary questions)
2. select 3 unseen passages for note making and summarizing (80 words)
3. A new bike is about to hit the Indian market. Prepare an advertisement for the company launching it in not more than 50 words.
4. You are Rajat/Ranjita, the owner of a cab agency. You have decided to buy a secondhand Inova in good condition. Write a classified advertisement for the Hindustan Times.
5. As the principal of Victoria College, Dehradun, draft a notice to warn students about ragging and its consequences.
6. You are approached by a famous cardiologist to draft a poster to make people aware of a healthy lifestyle and oil-free food cooking. Design the poster on his behalf.
7. Design an invitation card for the launch of your new collection of books among the readers club members.
8. This summer you are planning to visit Shimla. Write a letter to a travel agency in Shimla requesting them to book a room for you in a star hotel. Also inquire about the tour package.
9. Recently you came across an advertisement for the post of sports coach by MG Public School, Meerut in the Indian Express. You are eager to apply for the job as you possess the required qualification and experience. As Suneet/Sunita Sharma draft a job application to the Principal of the school along with your complete bio-data.
10. The crime profile of Delhi has become a worry for all concerned citizens of the state. Being one of them express your views about the law and order situation of the state in the form of an article in 150-200 words.

11. The world is divided over the issue whether teenagers should be given the freedom to choose their career. Standing at debate you have to express your views for or against this motion. Write the debate in 150-200 words.

12. Last month your school organised a symposium on Effects of environmental pollution. As a privileged student you participated in it. Write a report of the event and its impact.

Literature

13. Read thoroughly the following lessons: the last lesson, lost spring, the tiger king, my mother at sixty six. a) Write the summary of each.

b) Write at least one value-based question from each lesson.

Physics

HOLIDAY HOMEWORK FOR XII SCIENCE (PHYSICS) 2018

1. Write the superposition principle of forces between multiple charges with mathematical form.
2. Find the field of an electric dipole (i) For points on the axis (ii) For points on the equatorial plane.
3. Find the field due to an infinitely long straight uniformly charged wire and field due to a uniformly charged infinite plane sheet using Gauss' law.
4. What is the force between two small charged spheres having charges of $2 \times 10^{-7} \text{C}$ and $3 \times 10^{-7} \text{C}$ placed 30 cm apart in air?
5. An electric dipole with dipole moment $4 \times 10^{-9} \text{C m}$ is aligned at 30° with the direction of a uniform electric field of magnitude $5 \times 10^4 \text{NC}^{-1}$. Calculate the magnitude of the torque acting on the dipole.
6. An infinite line charge produces a field of $9 \times 10^4 \text{N/C}$ at a distance of 2 cm. Calculate the linear charge density.
7. Draw electric field lines to isolated +ve and -ve charges, a dipole and double +ve charges.
8. Deduce an expression for potential energy of a dipole in an external field.
9. Derive the expression for capacitance of parallel plate capacitor without dielectric and with dielectric.
10. Find the expression for potential energy is stored in of the system
11. Two charges $5 \times 10^{-8} \text{C}$ and $-3 \times 10^{-8} \text{C}$ are located 16 cm apart. At what point(s) on the line joining the two charges is the electric potential zero? Take the potential at infinity to be zero.
12. A regular hexagon of side 10 cm has a charge $5 \mu\text{C}$ at each of its vertices. Calculate the potential at the centre of the hexagon.
13. Two charges $2 \mu\text{C}$ and $-2 \mu\text{C}$ are placed at points A and B 6 cm apart.
14. A spherical conductor of radius 12 cm has a charge of $1.6 \times 10^{-7} \text{C}$ distributed uniformly on its surface. What is the electric field (a) inside the sphere (b) just outside the sphere (c) at a point 18 cm from the centre of the sphere?
15. Calculate the capacitance of the capacitor. If this capacitor is connected to a 100 V supply, what is the charge on each plate of the capacitor?
16. A 12pF capacitor is connected to a 50V battery. How much electrostatic energy is stored in the capacitor?
17. A 600pF capacitor is charged by a 200V supply. It is then disconnected from the supply and is connected to another uncharged 600 pF capacitor. How much electrostatic energy is lost in the process?

18. Two tiny spheres carrying charges $1.5 \mu\text{C}$ and $2.5 \mu\text{C}$ are located 30 cm apart. Find the potential and electric field:
 - (a) at the mid-point of the line joining the two charges, and
 - (b) at a point 10 cm from this midpoint in a plane normal to the line and passing through the mid-point.
19. (a) A 900 pF capacitor is charged by 100 V battery . How much electrostatic energy is stored by the capacitor? (b) The capacitor is disconnected from the battery and connected to another 900 pF capacitor . What is the electrostatic energy stored by the system?

CHEMISTRY

1. AgCl shows Frankel defect while NaCl does not. Give reason.
2. Why do ferromagnetic substances show better magnetism than antiferromagnetic substances?
3. What happens when CdCl_2 dopped with AgCl?
4. Stability of crystals is reflected in the magnitude of its melting point. Explain.
5. How would you account for the following:
 - a) Frenkel defects are not found in alkali metal.
 - b) Impurity dopped Silicon is a semiconductor.
6. Aluminium crystallises in a cubic closed structure. It's metallic radius is 125 pm.
 - i) What is the length of the side of unit cell.
 - ii) How many unit cells are there in 100 cm^3 of Aluminium.
7. Niobium crystallises in BCC structure. If density is 8.55 gcm^{-3} . Calculate atomic radius of Niobium using its atomic mass as 93u.
8. Explain how much portion of an atom located at (i) corner and (ii) body centre of a cubic unit cell is part of its neighbouring unit cell.
9. Explain the basis of similarities and differences between metallic and ii nice crystals.
10. What makes a glass different from a solid such as quartz? Under what conditions could quartz be converted into glass.

Economics

MICRO- Read the chapter "MAIN FORMS OF MARKET" and answers the following questions

1. What is perfect competition? Discuss the main features of a Perfectly Competitive Market.
2. Define a Monopoly and discuss its features.
3. What do you mean by Oligopoly Market? Write the features of this market system.
4. Define Monopolistic market and write its features.

MACRO- Read the chapter "MONEY AND BANKING" and answers the following questions.

1. What is Money? Write the components of measuring money supply
2. State the meaning of Central Bank and write its functions.

3. Define Commercial Bank and write its Functions.

Biology:-

BOYS GROUP

GROUP 1:-

Prepare a project on different disease causing agents, disease cause by them and its prevention and control along with chart.

GIRLS GROUP

GROUP 1:-

1. Collect different types of garden peas and describe its contrasting characters.
2. Describe Mendelism and deviation to mendelian principle.

GROUP 2:-

1. Prepare a project on reproduction in flowering plant.
2. Collect different types of flowers and show its reproductive system.

GROUP 3:-

1. Prepare a project on human reproductive system and reproductive health.
2. Give a chart showing different parts of male and female reproductive system.

GROUP 4:-

Prepare a project on components of an ecosystem give an example of pond ecosystem describe with chart.

Hindi

- ① परियोजना कार्य
विषय :- हिन्दी के प्रसिद्ध पाँच महिला कथाकारों का जीवन-परिचय।
- ② "आत्मपरिचय" एवं "दिल जलदी-जलदी डलता है" कविता के सभी प्रश्नों का उत्तर लिखिए।
- ③ 12वीं बोर्ड के पिछले वर्ष में पूछे गए कम-से-कम पाँच विषयों पर फीचर लिखिए।
- ④ 12वीं बोर्ड के पिछले वर्ष में पूछे गए कम-से-कम पाँच विषयों पर आलेख लिखिए।
- ⑤ जनसंचार से संबंधित 1 अंक के लगभग 100 प्रश्नों का संग्रह करें एवं उत्तर लिखिए।
- ⑥ वर्ष 2017 के 12वीं बोर्ड की परीक्षा में पूछे गए सभी विषयों पर 150 शब्दों में निबंध लिखिए।
- ⑦ फीचर और आलेख में क्या अंतर है ?