केन्द्रीय विद्यालय वायुसेना स्थल , समाणा

ग्रीष्मकालीन अवकाश गृहकार्य

विषय -हिन्दी

कक्षा - द्वादशी (xii)

01.अपठित दो गद्यांश व पद्यांश को एक वाक्य उत्तर , पूर्णवाक्य उत्तर व निर्देशानुसार उत्तर के आधार पर लिखे

02. आपके क्षेत्र में वृक्षों की अंधाधुंध कटाई की जा रही है | अत: रोकथाम के लिए उचित कदम उठाये जाने हेतु नगर के वन विभाग अध्यक्ष को पत्र लिखे |

03. "अपने जीवन में खेलों का महत्त्व" विषय पर (250-300 शब्दसीमा) निबन्ध लिखे |

04. छायावाद का सामान्यपरिचय लिखे | इसके चार स्तम्भों (निराला , प्रसाद , वर्मा , पन्त) का जीवन परिचय देते हुये रचनाओं का विस्तृत विश्लेषण करे |

05.स्वरचित दो कविताओं को लिखे |

ENGLISH HOLIDAY HOMEWORK

CLASS : 12 STD

1. CLASSIFIED ADVERTISEMENT (ANY TWO)
2. NOTICE (ANY TWO)
3. LETTER TO EDITOR (ANY TWO ON ANY RELEWANT TOPIC)
4. JOB APPLICATION (ANY TWO FOR ANY POST)
5. ARTCLES (ANT TWO ON ANY TOPIC)
6. SPEECHES (ANT TWO ON ANY TOPIC)

CLASS XII (MATHEMATICS) HOLIDAY HOME WORK

1) SOLVE 10 QUESTIONS FROM EACH EXCRCISE UP TO CHEPTER 3
2) PREPARE ANY WORKING MODEL OF MATHEMATICS
3) SOLVE PREVIOUS BOARD QUESTION UP TO CHEPTER 3

Electrostatics (Assignt-4) (Chap-2)

1. A point charge of -2μC is placed at a distance of 5m from another point charge of 9μC in air. Calculate the value of electric **potential** at a point which is situated at a distance of 3m from both these charges?**(21000V)**

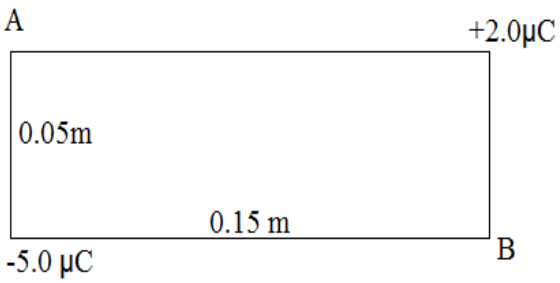
2. The electric field at a point due to a point charge is 20 NC^{-1} and the electric **potential** at that point is 10 JC^{-1}. Calculate the distance of the point from the charge and the magnitude of the charge. **(0.5m, 0.55 x 10^{-9}C)**

3. Two point charges of 3 x 10^{-8} C and -2 x 10^{-8} C are located 15 cm apart. At what point on the line joining the two charges is the electric **potential** zero? **(9 cm from the first charge)**

4. Two charges $4x10^{-9}C$ and $-3x10^{-9}C$ are located 0.1m apart. At what point on the line joining the two charges is the potential zero? Take the potential at infinity as zero.

5. A cube of side b has a charge q at each of its vertices. Determine the **potential** and electric field due to this charge array at the centre of the cube.

6. What are the electrostatics potentials at the corners A and B of the rectangle shown? What will be the work in taking a charge 3.0×10^{-6} C from A to B?



7. Two charges 4×10^{-9} C and -3×10^{-9} C are located 0.1 m apart. At what point on the line joining the two charges is electric potential zero?**(0.057 m)**

8. A wire is bent in a circle of radius 10 cm. It is given a charge of 20μC which spreads uniformly. Calculate electric potential at the centre of the circle. **$(1.8 \times 10^6$ V)**

9. A hexagon of side 0.1m has a charge 10μC at each of its vertices. Calculate the potential at the centre of the hexagon.

10. Two charges 3 X 10-8 C and -2 X 10-8 C are located 15 cm apart. At what point on the line joining the two charges is the electrical potential to be zero.

11. Calculate the potential at the centre of a square of side $\sqrt{(4.5)}$m which carries at its four corners charges of + 5 X10-9 C, +2 X 10-9 C, -5 X 10-9 C and -7 X 10-9 C respectively.

12. A charge of 8 mC is located at the origin. Calculate the work done in taking a small charge -2 X 10-9 C from a point P (0, 0, 3cm) to a point Q (0, 4cm, 0) via a point R (0, 6cm, 9cm).

13. A parallel plate capacitor with air between plates has a capacitance of 8pF. The separation between the plates is now reduced by half and the space between them is filled with a medium of dielectric constant 5. Calculate the value of capacitance of the capacitor in the second case. [80 pF]

14. An attractive force of 5N is acting between two charges of +-2 μC placed at some distance. If the charges are mutually touched and placed again at the same distance, what will be the new force, between them? [Zero]

15. Suppose that the earth has a net charge that is not zero. Is it still possible to adopt the crash as a structural reference point of potential and assign the potential V=0 to it?

16. How much energy is stored in a 10 pF capacitor connected to a 100 V battery?

17. A 80 μF capacitor is charged by a 50 V battery. The capacitor is disconnected from the battery and connected across another uncharged 320 μF capacitor. Calculate the charge on the second capacitor.

18. When a slab of insulating material 4 mm thick is introduced b/w the plates of a parallel plate capacitor, is found that the distance b/w the plates has to be increased by 3.2mm to restore the capacity to its original value. Calculate dielectric constant of the material.**(5)**

19. A 20μF capacitor is charged by a 30V, D.C. supply & then connected across an uncharged 50μF capacitor. Calculate (i) the final potential diff. across the combination (ii) initial & final energies. How will you account for the diff. in energies? **(8.75V; 9×10^{-3}J, 2.57×10^{-3}J)** (C.B.S.E. 2004)

20. A regular hexagon of side10cm has a charge of 5μC at each of its vertices. Calculate the potential at the centre of the hexagon. **(2.7×10^{6}V)**

KV AFS SAMANA

1. Organic Chemistry Chapter:-01
2. Inorganic Chemistry:- 01
3. Practical record Preparation