DAV PUBLIC SCHOOL, IFFCO, PARADEEP

HOLIDAY HOMEWORK
(2022-23)

STREAM : SCIENCE
STD- XII

HOLIDAY HOMEWORK (STD XII)
SUBJECT : ENGLISH

1. Collect 5 sample notices and write them in your HW note book .
2. Design 5 invitation cards for different occasions like marriage , Birthday , House warming ceremony , opening of a showroom , etc.
3. Write two applications for job with Bio data .
4. Revise all the lessons taught from Flamingo & Vistas for PSVT .

HOLIDAY HOMEWORK (STD XII)
SUBJECT : PHYSICS

CHAPTER 2: ELECTRIC POTENTIAL AND CAPACITANCE

1. Define the term 'electric polarisation' of a dielectric medium. Write its S.I. unit.

2. A dielectric medium of dielectric strength 9 x 10^6 V/m is filled between the plates of a parallel plate capacitor having effective capacitance of 1 pF and plate separation 1 cm. Determine the charge on the capacitor. Ans: 90mC

3. "For any charge configuration, equipotential surface through a point is normal to the electric field." Justify.

4. Why is the electric potential inside a hollow spherical charged conductor constant and has the same value as on its surface?

5. Two capacitor of capacitance 6pF and 12pF are connected in series with battery. The voltage across the 6pF capacitor is 2V. Compute the battery voltage. Ans 3V

6. Two long thin parallel wires having linear charge density 2 x 10^{-9} C/m and – 3 x 10^{-9} C/m are kept 20 cm apart in air. Find the

magnitude and direction of the electric field at a point 10 cm from each wire.

Ans: 900mC towards wire having negative charge density.

7. Two point charges q and – 2q are kept 'd' distance apart. Find the location of the point relative to charge 'q' at which potential due to this system of charges is zero.

Ans: at d/3 from charge q.

8. An electric dipole is placed in a uniform electric field E with its dipole moment p parallel to the field. Find (i) the work done in turning the dipole till its dipole moment points in the direction opposite to E. (ii) the orientation of the dipole for which the torque acting on it becomes maximum.

9. An electric dipole of length 1cm with its axis making an angle of 60^0 with uniform electric field, experiences a torque of 6√3 Nm. Calculate the potential energy of the dipole if it has charge 2 nC.

Ans: -6J

10. Given a uniform electric field = 4×10^3 N/C. Find the flux of this field through a square of 5 cm on a side whose plane is parallel to the Y-Z plane. What would be the flux through the same square if the plane makes a 30^0 angle with the x-axis?

Ans: 10 Nm^2C^{-1}, 5 Nm^2C^{-1}

11. N identical spherical drops charged to the same potential 'V' are combined to form a big drop. Find the potential of the new big drop formed. Ans : (2**N/3)V**

12. In the electric field of a point charge 'q', the four points A,B,C and D are equidistant from q, however AB>AC>AD. Calculate the work done in taking a unit charge along AB, AC and AD.

13. Three identical charges each +q are placed at the corners of an equilateral triangle of side d cm. Calculate the force on a charge +2q at the centroid of the triangle.

Ans: **Zero**

14. Draw the graph to show the variation of force between two point charges with [$1/r^2$], where 'r' is separation between two charges when the force is (i) attractive (ii) repulsive.

15. Given a uniform electric field $E = 5 \times 10^3$ i N/C, find the flux of this field through a square of side 10 cm on a side whose plane is parallel to the y-z plane. What would be the flux through the same square if the plane makes a 30^0 angle with the x-axis?

16. Two charged conducting spheres of radii 'a' and 'b' are connected to each other by a thin wire. What is the ratio of electric fields on the surface of two spheres? Hint: $V_1 = V_2$
So, $q_1/q_2 = a/b$, $E_1/E_2 = q_1 b^2 / q_2 a^2 = b/a$)

17. Two capacitors of capacitances C_1 and C_2 such that $C_1 = 2C_2$ are connected in turn (i) in series and (ii) in parallel across the same battery. In which of the two cases will the (a) energy stored and (b) charge acquired be more? Justify your answer.

18. Three-point charges of $+ 2$ µC, $- 3$µC and $- 3$µC are kept at the vertices A, B and C respectively of an equilateral triangle of side 20 cm. What should be the sign and magnitude of the charge to be placed at the mid-point (M) of side BC so that the charge at A remains in equilibrium

19. A small sphere of radius a carrying a positive charge q is placed concentrically inside a large hollow conducting shell of radius b (b>a). This outer shell has charge Q on it. Show that if these spheres are connected by a conducting wire, charge will always flow from the inner sphere to the outer sphere irrespective of the magnitude of the two charges.

20. A charge is uniformly distributed over a ring of radius a. Obtain an expression for the electric field intensity E at a point on the axis of the ring. Hence show that for points at large distances from the ring it behaves like a point charge.

Assertion Reasoning Questions: two statements are given – one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below.

(a) Both A & R are true and R is the correct explanation of A.
(b) Both A & R are true but R is NOT the correct explanation of A.
(c)A is true but R is false.

(d)A is false and R is also false.

1. **Assertion (A):** A metallic shield in the form of a hollow shell may be built to block an electric field.
Reason (R): In a hollow spherical shield, the electric field inside it is zero at every point.

(a)   (b)   (c)   (d)

2. **Assertion (A):** Work done in moving a charge between any two points in a uniform
electric field is independent of the path followed by the charge, between these points.
Reason (R): Electrostatic forces are not conservative.

(a)   (b)   (c)   (d)

3. **Assertion (A):** Dielectric polarization means formation of positive and negative charges **inside** the dielectric.
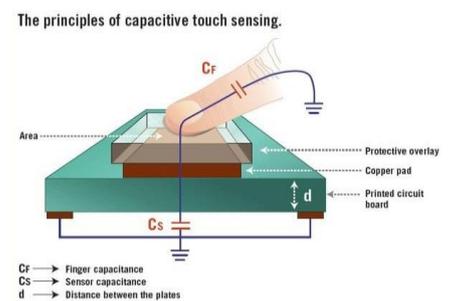**Reason (R):** Free electrons are formed in the process.

(a)   (b)   (c)   (d)

CASE BASED QUESTIONS

I.   CAPACITIVE TOUCH SCREEN
The capacitive based touch screen technology is the most popular technology now a days. In a capacitive touch screen, the glass panel is coated with a thin, transparent, charge storing electrode layer. The electrical conductivity of the human body plays an important role in capacitive touch screens. When a human finger touches the screen, the electrode layer reacts to the static electricity of the human body and a dynamic capacitor is formed. The sensors measure the difference in capacitance and flow of current, which is directly proportional to the distance of the point of contact from the corner.

The principles of capacitive touch sensing.

1.   In capacitive touch screen human fingertip behaves as
(a) conductor   (b) insulator

(c) semiconductor   (d) dielectric

2.   In the picture of capacitive touch screen, the two capacitors are

(a) in series combination   (b) in parallel combination

(c) neither in series nor in parallel   (d) none of these

3.   Copper is used in capacitive touch screen because
(a) it is extremely ductile

(b) it responds to another electrical conductor

(c) it does not respond to another electrical conductor

(d) none of these

4.   If 12V is applied to a capacitor with capacitance 15µF, then the presence of a finger increases its capacitance by ΔC=0.50µF. How much charge flows due to this change?
(a) 6 C   (b) 60 µC   (c) 6 µC   (d) 60 C

5.   What is the equivalent capacitance of 100 capacitors of equal capacitances connected in series?
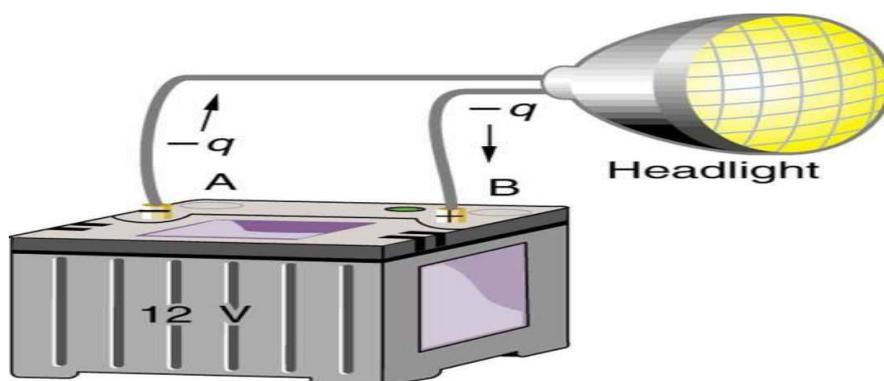(a)   0.01 times the capacitance of any capacitor
(b)   100 times the capacitance of any capacitor
(c)   10 times the capacitance of any capacitor
(d)   same as that of the capacitance of any capacitor

II.   HEAD LIGHT OF CAR
A battery moves negative charge from its negative terminal through a headlight to its positive terminal. Appropriate combinations of chemicals in the battery separate charges so that the negative terminal has an excess of negative charge, which is repelled by it and attracted to the excess positive charge on the other terminal. In terms of potential, the positive terminal is at a higher voltage than the negative. Inside the battery, both positive and negative charges move.

1.   Which of the following statements is correct about the movement of charges inside the battery?

(a)   positive charges move from negative terminal to positive terminal
(b)   negative charges move from negative terminal to positive terminal
(c)   positive charges move from positive terminal to negative terminal
(d)   none of these

2.   When a 12 V car battery runs a single 30-watt headlight, how many electrons pass through it in each second?

(a) 15.625×10^{19} (b) 1.5625×10^{19} (c) 1.5625×10^{18} (d) 15.625×10^{18}

3.   A 12 V car battery can move 6×10^4 C of charge. How much energy does it deliver?

(a) 720 KJ   (b) 72 J   (c) 720 J   (d) 72 KJ

4. A cell in battery refers to

(a) single anode only

(b) multi anodes and cathodes separated by electrolyte

(c) a single anode and cathode separated by electrolyte

(d) single cathode only

5.   In a battery
(a)   chemical energy is converted into electrical energy
(b)   kinetic energy of charge carriers is converted into electrical energy
(c)   both chemical energy and kinetic energy are responsible for electrical energy
(d)   none of these

CHAPTER 3 : CURRENT ELECTRICITY

1.   Is electric current a vector or scalar quantity? Explain.

2.   What is the order of thermal velocity of free electrons in a conductor?

3.   Two wires of equal lengths, one of copper & the other of managing have the same resistance. Which wire will be thicker?

4.   What is the order of magnitude of density of free electron in a metal?

5.   A large number of free electrons are present in metals. Why is there no current in the absence of electric field across it?

6.   What is the order of drift velocity of free electrons in a conductor?

7. What is the trajectory of free electrons in a conductor between two successive collisions when:

(a) No potential difference is applied
(b) Potential difference is applied

8. How does relaxation time depend upon temperature?

9. How the drift velocity varies if

(a) Potential difference increases?
(b) Temperature increases?

10. The charge following in a conductor varies with times as
$q = 2t - 6t^2 + 10t^3$, where q is in coulomb & t in second. Find

(a) The initial current (b) the time after which the value of reaches a maximum value
(b) The maximum or minimum value of current.

11. Will the drift velocity of electrons in a metal increase or decrease with the increase in temperature?

12. Why manganin or constantan are chosen for making standard resistances
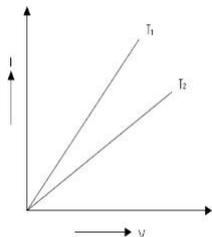
13. Two wires A and B of the same material and having same length have their cross-sectional area in the ratio1:4. What would be the ratio of heat produced in these wires when same voltage is applied across each?

14. Two wires of the same material having lengths in the ratio 1:2 and diameters in the ratio 2:3 is connected in series with an accumulator. Compute the ratio of pd across the two wires.

15. Two metallic wires of the same material and same length but of different

16. Cross sectional areas are joined together. 1) in series2) in parallel to a source of emf. In which of the two wires will the drift velocity of electron be more in each of the two cases and why?
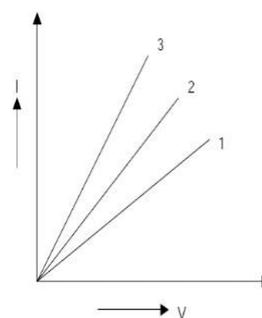
17. Current voltage graphs for a given metallic wire at different temperatures T_1 and T_2 are shown in figure. Which of the temperatures T_1 and T_2 is greater?

18. V-I graphs for two resistors and their series
Combination is as shown in figure.
 Which one of these graphs represents the
series combination of the other two?
 Give reasons for your answer.

19. A wire of length l is stretched to two times of its original length. How does its resistance change?

20. A wire of length l is attached with another wire of same length and same cross-sectional area. How does the resistance change?

HOLIDAY HOMEWORK (STD XII)
SUBJECT : CHEMISTRY

Q.1 What do you mean by ideal solution. Give an example?

Q.2 Explain why a solution of chloroform and acetone shows negative deviation from Raoult's law.

Q.3 List any four factors on which the colligative properties of a solution depend.

Q.4 Define Henry's law about solubility of a gas in a liquid.

Q.5 A solution of urea in water has a boiling point of 373.128 K. Calculate the freezing point of the same solution. [K_f= 1.86 Km^{-1}, K_b= 0.52 Km^{-1}]

Q.6 Calculate the amount of KCl which must be added to 1 Kg of water so that the freezing point is depressed by 2K. [K_f for water = 1.86 Km^{-1}]

Q.7 A 0.561 m solution of an unknown electrolyte depresses the freezing point of water by 2.93^0 C. What is Van't Hoff factor for this electrolyte? The freezing point depression constant (K_f) for water is 1.86^{0}C kg mol^{-1}.

Q.8 A solution prepared by dissolving 8.95mg of a gene fragment in 35.0 ml of water has an osmotic pressure of 0.335 torr at 25^{0}C . Assuming the gene fragment is non-electrolyte , determine its molar mass.

Q.9 what is Van't Hoff factor? What possible values can it have if the solute molecules undergo dissociation?

Q.10 An aqueous solution containing 12.48 g of $BaCl_2$ in 1.0 kg of water boils at 373.0832 K. Calculate the degree of dissociation of $BaCl_2$. [Kb for water 0.52 K m^{-1}, Molar mass of $BaCl_2$= 208.34 g mol^{-1}]

Q.11 State Raoult's law for a solution containing volatile components.

Q.12 State how the vapour pressure of a solvent is affected when a non volatile solute is dissolved in it.

Q.13 What are azeotropes? Give an example.

Q.14 10 mL of liquid A was mixed with 10 mL of liquid B. The volume of the resulting solution was found to be 19.9 mL. What do you conclude?

Q.15 Give reason when 30 mL of ethyl alcohol and 30 mL of water are mixed, the volume of resulting solution is more than 60 mL.

Q.16 Two liquids A and B boil at 145 °C and 190 °C respectively. Which of them has a higher vapour pressure at 80 °C?

Q.17 What are the values of ΔH and ΔV for an ideal solution of two liquids?

Q.18 Define Ebullioscopic constant or molal elevation constant.

Q.19 Out of 0.1 molal solutions of glucose and potassium chloride respectively, which one will have a higher boiling point?

Q.20 Define molality in terms of elevation in boiling point.

Q.21 Which has the highest freezing point?
(a) 1 M glucose (b) 1 M NaCl (c) 1 M $CaCl_2$ (d) 1 M AlF_3

Q.22 What is anti-freeze?

Q.23 Measurement of which colligative property is preferred for determination of molar mass.

Q.24 Define osmotic pressure.

Q.25 What is meant by 'reverse osmosis'?

Q.26 Why is osmotic pressure considered as a colligative property?

Q.27 A 10% solution of urea is isotonic with 20% solution of 'x' at same temperature. Calculate molecular weight of x.

Q.28 What is expected value of van't Hoff factor for $K_3[Fe(CN)_6]$.

Q.29 What possible value of 'i' will it have if solute molecules undergo association in solution?

Q.30 A person suffering from high blood pressure should take less common salt, why?

Q.31 Why do doctors advise gargles by saline water in case of sore throat?

Q.32 When outer shell of two eggs are removed, one of the eggs is placed in pure water and other is placed in saturated solution of NaCl, what will be observed and why?

Q.33 What is the cause of anoxia?

Q.34 Why are cold drinks bottles filled at high pressure?

Q.35 Give an example each of solid in gas and liquid in gas solution.

Q.36 What are the values of ΔH and ΔV for positive deviation from ideality? Give one example.

Q.37 What are the values of p_{Total}, ΔH and ΔV for negative deviation from ideality? Give one example.

Q.38 Why is osmotic pressure of 1 M KCl is higher than that of 1 M urea solution?

Q.39 The molecular masses of polymers are determined by osmotic pressure method and nor by measuring other colligative properties. Give two reasons.

Q.40 The density of water of a lake is 1.25 g mL^{-1} and one kg of this water contains 92 g of Na$^+$ ions. What is the molarity and molality of Na$^+$ ions in the water of the lake? (Atomic mass of Na = 23.00 u)

Q.41 State Raoult's Law for a solution containing volatile components. How does Raoult's law become a special case of Henry's Law?

Q.42 If N$_2$ gas is bubbled through water at 293 K, how many millimoles of N$_2$ gas would dissolve in 1 litre of water? Assume that N$_2$ exerts a partial pressure of 0.987 bar. Given that Henry's law constant for N$_2$ at 293 K is 76.48 kbar.

Q.43 A solution is prepared by dissolving 10 g of non-volatile solute in 200 g of water. It has a vapour pressure of 31.84 mm Hg at 308 K. Calculate the molar mass of the solute. (Vapour pressure of pure water at 308 K = 32 mm Hg)

Q.44 The vapour pressure of pure benzene at a certain temperature is 0.85 bar. A non-volatile, non-electrolyte solid weighing 0.5 g is added to 39.0 g of benzene (molar mass 78 g mol^{-1}). Vapour pressure of the solution, then, is 0.845 bar. What is the molar mass of the solid substance?

Q.45 18 g of glucose, C$_6$H$_{12}$O$_6$, is dissolved in 1 kg of water in a saucepan. At what temperature will water boil at 1.103 bar? (K$_b$ for H$_2$O is 0.52 k kg mol^{-1})

Q.46 Find the boiling point of a solution containing 0.520 g of glucose (C$_6$H$_{12}$O$_6$) dissolved in 80.2 g of water. [Given: K$_b$ for water = 0.52 K/m]

Q.47 The boiling point of benzene is 353.23 K. When 1.80 g of non-volatile solute was dissolved in 90 g of benzene, the boiling point is raised to 354.11 K Calculate the molar mass of solute. K$_b$ for benzene is 2.53 K kg mol^{-1}.

Q.48 200 cm^3 of an aqueous solution of protein contains 1.26 g of the protein. The osmotic pressure of such a solution at 300 K is found to be 2.57×10^{-3} bar. Calculate the molar mass of the protein.

Q.49 An electrolyte AB is 50% ionised in aqueous solution. Calculate the freezing point of 1 molal aqueous solution.

Q.50 What is meant by positive deviations from Raoult's law? Give an example. What is the sign of $\Delta_{mix}H$ for positive deviation?

Q.51 What type of azeotrope is formed by positive deviation from Raoult's law? Give an example.

Q.52 What is meant by negative deviation from Raoult's law? Give an example. What is the sign of $\Delta_{mix}H$ for negative deviation?

Q.53 Define azeotropes. What type of azeotrope is formed by negative deviation from Raoult's law? Give an example.

Q.54 Derive the relationship between relative lowering of vapour pressure and molar mass of solute.

Q.55 Why does a solution containing non-volatile solute have higher boiling point than pure solvent? Why is elevation in boiling point is a colligative property?

Q.56 Calculate the boiling point of 1 molar solution of solute (Molar mass 74.5 g mol^{-1}). The density of solution is 1.04 g mL^{-1} and K_b for water is 0.52 K kg mol^{-1}.

Q.57 Which of the following binary mixtures will have same composition in liquid and vapour phase?
(a)Benzene-Toluene(b)Water-Nitricacid
(c) Water-Ethanol (d) n-Hexane - n-Heptane

HOLIDAY HOMEWORK (STD XII)
SUBJECT : MATHEMATICS

01.   Solve all problems of exemplar from chapters 1, 3, and 4
02.   Solve all problems from NCERT BOOK from chapter 1,3 and 4
03.   Learn all trigonometric formulae from class-XI book

HOLIDAY HOMEWORK (STD XII)
SUBJECT : HINDI

रचनात्मक लेखन :- (200 शब्दों में लिखिए)

(1)इंतहान के दिन

(2)सावन की पहली झड़ी

(3)सरदी की एक सुबह

(4)मेरा प्रिय टाइमपास

(5)युवाओं में बढ़ता मानसिक तनाव

पत्र लेखन (120 शब्दों में)

(1) आपद स्थिति में खाद्य पदार्थों की बढ़ती कीमत की समस्या के प्रति चिंता व्यक्त करते हुए किसी दैनिक समाचार पत्र के संपादक को पत्र लिखिए-

(2) छात्र-परिषद के अध्यक्ष के रूप में नगर निगम के मुख्य कार्यकारी अधिकारी को पत्र लिखकर विद्यालय के सामने अव्यवस्थित पार्क की सफ़ाई और देखभाल की जिम्मेदारी लेने का प्रस्ताव रखिए

(3) सड़क दुर्घटनाओं में हो रही बढ़ोत्तरी पर चिंता जताते हुए यतायात के नियमों को कठोरता से लागू करने हेतु,नगर के पुलिस अधीक्षक को पत्र लिखिए:

HOLIDAY HOMEWORK (STD XII)
SUBJECT : BIOLOGY

[1] Prepare a power point presentation (Any one of the following)

CHAPTER 2: (MAXIMUM 20 SLIDES)
TOPIC:
- ❖ MICROSPOROGENESIS
- ❖ MEGASPOROGENESIS
- ❖ POLLINATION: TYPES, POLLEN PISTIL INTERACTION & OUTBREEDING DEVICES
- ❖ DOUBLE FERTILIZATION
- ❖ POST FERTILIZATION EVENTS

CHAPTER 3: (MAXIMUM 20 SLIDES)
TOPIC:
- ❖ MALE REPRODUCTIVE SYSTEM
- ❖ FEMALE REPRODUCTIVE SYSTEM
- ❖ SPERMATOGENESIS
- ❖ OOGENESIS
- ❖ MENSTRUAL CYCLE IN PRIMATES
- ❖ FERTILIZATION, IMPLANTATION, PREGNANCY, PARTURITION, LACTATION IN HUMANS

[2] Update your CW & HW (TEXT AND EXEMPLAR) copy and go through all questions and answers written in it.

[3] ANSWER THE FOLLOWING QUESTIONS IN YOUR **HW** COPY.

HOLIDAY HOMEWORK (STD XII)
SUBJECT : COMPUTER SCIENCE

CHAPTER – REVIEW OF BASICS OF PYTHON

Q1. Find the invalid identifier from the followings :

   a) none   b) address   c) Name   d) pass

   e) MyName   f) True   g) 2ndName   h) My_Name

Q2. Consider the declaration L = 1, 'Python', '3.14'. What will be the data type of L?

Q3. Given an object obj1= (10, 20, 30, 40, 50, 60, 70, 80, 90). What will be the output of print(obj1[3:7:2]) ?

Q4. The return type of the input() function is

Q5. Which of the following operator cannot be used with string data type?

   a. +   b. in   c. *   d. /

Q6. Given an object obj1 = (10, 15, 25, 30). Identify the statement that will result in an error.

   a. print(obj1[2])   b. obj1[2] = 20

   c. print(min(obj1))   d. print(len(obj1))

Q7. What is the default extension of a Python file ?

Q8. Which symbol is used in Python for comments?

Q9. Which of the following statements is false in the context of dictionary?

a) The values of a dictionary can be accessed using keys.

b) The keys of a dictionary can be accessed using values.

c) Elements in a dictionary are in form of key:value pairs.

d) Dictionaries are mutable.

Q10. What is the output of the following code?

```
T=(100)
print(T*2)
```

Q11. Identify the output of the following Python statements.

```
x = [[10.0, 11.0, 12.0],[13.0, 14.0, 15.0]]
y = x[1][2]
print(y)
```

Q12. Identify the output of the following Python statements.

```
x = 2
while x < 9:
    print(x, end=")
    x = x + 1
```

Q13. Identify the output of the following Python statements.

```
b = 1
for a in range(1, 10, 2):
    b += a + 2
print(b)
```

Q14. Identify the output of the following Python statements.

```
lst1 = [10, 15, 20, 25, 30]
lst1.insert( 3, 4)
lst1.insert( 2, 3)
```

```
print (lst1[-5])
```

Q15. Evaluate the following expression and identify the correct answer.

a)   16 - (4 + 2) * 5 + 2**3 * 4

b)   6 * 3 + 4**2 // 5 – 8

c)   10 > 5 and 7 > 12 or not 18 > 3

Q16. Which of the following options can be the output for the following code?

```
import random

List=["Delhi","Mumbai","Chennai","Kolkata"]

for y in range(4):

    x = random.randint(1,3)

    print(List[x],end="#")
```

a. Delhi#Mumbai#Chennai#Kolkata#

b. Mumbai#Chennai#Kolkata#Mumbai#

c. Mumbai# Mumbai #Mumbai # Delhi#

d. Mumbai# Mumbai #Chennai # Mumbai

Q17. What will be the output of the following code?

```
tup1 = (1,2,[1,2],3)

tup1[2][1]=3.14

print(tup1)
```

Q18. Identify the valid arithmetic operator in Python from the following.

a) ?   b) <   c) **   d) and

Q19. Write a statement in Python to declare a dictionary whose keys are 1, 2, 3

and values are Monday, Tuesday and Wednesday respectively.

Q20. Rewrite the following code in Python after removing all syntax error(s).

Underline each correction done in the code.

```
Value=30

for VAL in range(0,Value)

 If val%4=0:

    print (VAL*4)

 Elseif val%5=0:

    print (VAL+3)

 else

    print(VAL+10)
```

Q21. What possible outputs(s) are expected to be displayed on screen at the time of execution of the program from the following code? Also specify the

maximum values that can be assigned to each of the variables Lower and

Upper.

```
import random

AR=[20,30,40,50,60,70];

Lower =random.randint(1,3)

Upper =random.randint(2,4)

for K in range(Lower, Upper +1):

    print (AR[K],end="#")
```

(i) 10#40#70#   (ii) 30#40#50#

(iii) 50#60#70#   (iv) 40#50#70#

Q22. Write a statement in Python to declare a dictionary 'D' with 30 keys 0,1,2...29 each having values as -35 .

CHAPTER – WORKING WITH FUNCTIONS

Q1. What is the area of memory called, which stores the parameters and local variables of a function call?

Q2. Find out the output of the following code :

```
a = 10
def fun():
  global a
  a=a+2
print(a)
fun()
print(a)
```

Q3. Find out the output of the following code :

```
def Withdef(HisNum = 30):
   for i in range(20, HisNum + 1, 5):
      print(i, end= " ")
   print()
def Control(MyNum):
   MyNum = MyNum + 10
   Withdef(MyNum)
YourNum = 25
Control(YourNum)
Withdef()
print("Number = ",YourNum)
```

Q4. Find out the output of the following code :

```
def increment(marks):
  p = []
  for m in marks :
```

```python
        m = m + 5
        if (m>100):
            m = 100
        p.append(m)
    return p
def decrement(marks):
    for i in range(0,len(marks)):
        marks[i] = marks[i] - 5
        if (marks [i] < 0):
            marks[i] = 0
a = [45,55,96,85]
a = increment(a)
print(a)
decrement(a)
print(a)
```

Q5. Find out the output of the following code :

```python
def change(a,b,c,d):
    m = max(a,b,c,d)
    n = min(a,b,c,d)
    s = a + b + c + d
    return n , m, s
g , h , i = change(2 , 5, 7, 20)
print(g , h, i)
```

Q6. Find out the output of the following code :

```
def Revert(Num , Last = 2) :
    if Last % 2 == 0 :
        Last = Last + 1
    else :
        Last = Last - 1
    for C in range(1 , Last + 1):
        Num += C
    print(Num)
A, B = 20, 4
Revert(A, B)
B = B - 1
Revert(B)
```

Q7. Which of the following function call can be used to invoke the function header given below?

def test(a, b, c, d) :

a) test(1,2,3,4)   b) test(a = 1, 2, 3, 4)

c) test(a=1 , b=2, 3,4)   d) test(a=1, b=2 , c=3, 4)

Q8. What is the output of the following piece of code?

```
def a(b):
    b = b + [5]
c = [1, 2, 3, 4]
a(c)
print(len(c))
```

Q9. What is the output of the following code?

```
a=10
```

```
            b=20

            def change():

                global b

                a=45

                b=56

            change()

            print(a, end = ' ')

            print(b)
```

Q10. What is the output of the following code?

```
        def change(one, *two):

            print(type(two))

        change(1,2,3,4)
```

Q11. Write a function LShift(Arr,n) in Python, which accepts a list Arr of numbers and n is a numeric value by which all elements of the list are shifted to left.

Sample Input Data of the list

Arr= [10,20,30,40,12,11] ,   n=2

Output

Arr = [30,40,12,11,10,20]

Q12. Differentiate between Default argument(s) and Keyword argument(s) . Also, give a suitable example to illustrate each type of argument(s) .

Q13. Rewrite the following code in Python after removing all syntax error(s). Underline each correction done in the code.

```
        def Tot(Number)

            Sum = 0
```

```
        for C in Range(1, Number +1) :

            Sum += C

        RETURN Sum

    print Tot[3]

    print Tot[6]
```

Q14. Find out the output :

```
    def Change(P, Q = 30):

        P = P + Q

        Q = P - Q

        print(P , "#",Q)

        return (P)

    R = 150

    S = 100

    R = Change(R,S)

    print(R,"#",S)

    S = Change(S)
```

Q15. Write the definition of the function swap(Li) which takes List as an argument and swap alternate elements of the list .

Ex : L = [1,2,3,4,5,6]

Output : L = [2,1,4,3,6,5]

Q16. Write the definition of function fun(str) in python which takes str as an parameter and calculate the total number of occurrences of letter 'p' or 'P' in a given string .

HOLIDAY HOMEWORK (STD XII)
SUBJECT : PHYSICAL EDUCATION

1- Explain the committees for organizing sports events and explain any eight committees in detail.

2- What do you mean by knock-out tournament ? Draw the Fixtures of 21 teams on knock-out basis.

3- Briefly explain the Management in Sports.

4- Discuss the pre- game responsibilities of officials of various committees.

5- Write an essay International "Yoga Day "

<u>N.B:</u>
- ✓ Maintain index in your CW and HW copy.
- ✓ Do page numbering in all copies.

Its SUMMER TIME again. Time to strengthen your family bond, sharing joy and sorrow. Use your holiday home work as an opportunity to spend quality time together. Let your child take the lead and use his/ her imagination, creativity and knowledge to do the assigned work. The role of the parent is to be a facilitator and guide to sheer the child in the right direction. Take good care of your health and hygiene.

WE WISH YOU TONS OF HAPPINESS, JOY AND FUN WHILE YOU ARE ON VACATION.
MAINTAIN SOCIAL DISTANCING AND STAY SAFE .

Supervisor   **Coordinator**   **Principal**