NAME : ....

QUESTION BANK OF CHEMISTRY
CLASS - XII
SOLUTIONS 2024-25

- **Try to solve these questions in any 20-40 pages notebook and submit the answers after summer vacation.**

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

2. How is molality of a solution different from its molarity?

3. State Raoult's law for s solution containing volatile components.

4. 10 ml of a 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?

5. Two liquids A and B on mixing produce a warm solution. Which type of deviation from Raoult's law does it show?

6. Alcohols and water are miscible in all proportions ,give reason.

7. 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.

8. Define Molal elevation constat.(Kb)

9. On mixing equal volumes of water and ethanol, what type of deviation would you expect from Raoult's law?

10. Give reasons foe the following :

    (a) Aquatic animals are more comfortable in cold water than in warm water.

    (b) At higher altitude people suffer from anoxia resulting in inability to think

11. Under what condition are the molarity and molality of a solution nearly the same?

12. What type of deviation is shown by a mixture of ethanol and acetone? Give reason.

13. On mixing liquid X and liquid Y, the volume of the resulting solution increases. What type of deviation from Raoult's law is shown by the resulting solution? What change in temperature would you observe after mixing liquids X and Y ?

14. Calculate the mole fraction of ethylene glycol ($C_2H_6O_2$) in a solution containing 20% of glycol by mass.

15. A solution is made by dissolving 30 g of a non-volatile solute in 90 g of water. It has a vapour pressure of 2.8 KPa at 298K ,Vapour pressure of pure water is 3.64 KPa. Calculate the molar mass of solute.

16. **Assertion (A):** $\Delta_{mix}H$ and $\Delta_{mix}V$ are zero for an ideal solution.

    Reason (R): The solution which obeys Raoult's law over entire range of concentration is called an ideal solution.

17. 30 g of urea (M=60g mol^{-1}) is dissolved in 846 g of water. Calculate the vapour pressure for this solution if vapour pressure of pure water at 298 K is 23.8 mm Hg.

18. A solution of glucose in water is labelled as 10% by weight. What would be molality of the solution?

19. State Henry's law. Why is air diluted with helium in the tanks used by scuba divers ?

20. Suman took two glasses of water from a water filter. She cools one glass in a fridge and warms the other glass on a stove.Which glass of water will hold more dissolved oxygen ? Explain using Henry's law.

CLASS – XII
SUBJECT – COMPUTER SCIENCE (083)
CHAPTER – 3 [FUNCTIONS]
ASSIGNMENT

Q 1. **Rewrite the following code after removing error. Underline each correction done by you.**

```
def SI(p,t=2,r):
    return (p*r*t)/100


def  chksum :
    x = input ( "Enter a number")
    if (x % 2 = 0) :
       for i  range ( 2 * x ):
            print (i)
       loop else:
            print ( "#")



def Tot(Number)     #Method to find Total
      Sum=0
      for C in Range (l, Number+1):
           Sum+=C
      RETURN Sum
      print Tot[3]          #Function Calls
      print Tot[6]
```

```
DEF execmain( ):
   x = input ( "Enter a number")
             If (abs(x)=x) :
                   Print ("You Entered a
   positive number ..")
             else:
                   x=*−1
                   print("Number made
   positive:"x)
     execmain()



def checkval:
     x = raw_input("Enter a number")
     if x % 2 = 0 :
           print x,"is even"
     else if x<0 :
           print x,"should be positive"
     else ;
           print x,"is odd"
```

Q 2. Define functions. Why there is a need to use a function in a program.

Q 3. **Differentiate between the following with the help of an example:**

   (a) Actual and Formal Parameters
   (b) Local and Global Variables
   (c) Positional and Default arguments

Q 4. **Write the type of tokens from the following :**

            if   roll_no   Else   int

Q 5. **Name the Python Library modules which need to be imported to invoke the following functions:**

(i) sin( )   (ii) randint ( )   (iii) uniform( )   (iv) ceil( )

Q 6. Find and write the output of the following:

```
a=10
def call():
    global a
    a=15
    b=20
    print(a)
call()
```

Q 7. How can you access a global variable inside the function, if function has a variable with same name?

Q 8. Write the output of the following code:

(a)
```
x = 50
def func(x):
    print('x is', x)
    x = 2
    print('Changed local x to', x)
func(x)
print('x is now', x)
```

(b)
```
x = 50
def func():
    global x
    print('x is', x)
    x = 2
    print('Changed global x to', x)
func()
print('Value of x is', x)
```

(c)
```
def func(a, b=5, c=10):
        print('a is', a, 'and b is', b, 'and c is', c)
func(3, 7)
func(25, c = 24)
func(c = 50, a = 100)
```
(d)
```
a=10
b=20
```

```
def change():
    global b
    a=45
    b=56
change()
print(a)
print(b)
```

Q 9. Find the output of the following:

```
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)
```

Q 10. Find the output of the following:

```
def Position(C1, C2, C3):
    C1[0] = C1[0] + 2
    C2 = C2 + 1
    C3 = "python"

P1 = [20]
P2 = 4
P3 = "school"

Position(P1, P2, P3);
print(P1, ", ", P2, ", ", P3)
```

Summer vacation Assignment -2024

Class XII Subject -Biology

Note:-Students are instructed to use A-4 size papers

1.Visit to your surrounding and collect the varieties of pollen grains of different flower and paste on A-4 size papers

2.Draw labelled diagram of :-

a) Enlarge view of one microsporongium showing wall layer

b)A typical anatropous ovule

3.Make a flow chart of Schematic representation of Spermatogenesis and Oogenesis

4.Make a clay model of a diagram represent the mature Embryo   OR   Diagrammatic section view of seminiferous tubule and label it.

5. What are out breeding devices? Mention any three out- breeding devices help to prevent self pollination.

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SUMMER VACATION ASSIGNMENT 2024-25
SUBJECT: - PHYSICS

CLASS – XII

1. Make a report about establishment, work, milestones, future projects of Vikram Sarabhai Space Research Centre Thiruvananthapuram Kerala. (A_4 size paper)

2. Read chapter ray optics and prepare notes.

MRS. GEETA SINGH
(PGT – PHYSICS)

कक्षा 12वीं   विषय हिंदी

*बाजार दर्शन एवं सिल्वर वेडिंग पाठ के प्रश्न उत्तर लिखिए।

*पढ़ाए गए सभी पाठ का प्रश्न उत्तर याद करके लिखिए।

Summer Vacation Homework

Class – XII   **Sub : Mathematics**

1. Prepare 20 MCQs with answers (show your work) each from Chapter-3 and 4 i.e. Matrices and Determinants. (Total 40 MCQs)
2. Revise chapters Relations and Functions, Trigonometry and Limits & Derivatives from class XI syllabus.

   Prepare your work in A4 size papers submit it on 18.06.2024.

1. Solve unsolved questions type A chapter1 from Q1 to Q10,Type Bupto Q10
2. Type C upto Q4.