JAWAHAR HIGHER SECONDARY SCHOOL – NEYVELI **REVISION EXAM – I – 2022 - 2023** ENGLISH

MARK: 35 TIME : 1 hrs

(10

CLASS: XII DATE: 01.07.2022

SECTION-B (READING)

Read the given passage carefully:

1. I have often thought it would be a blessing if each human being was stricken blind and deaf for a few days at some time during his adult life. Darkness would make him more appreciative of sight, silence would teach him the joy of sound.

Now and then, I have tested my seeing friends to discover what they see. Recently, I asked a friend, who had just returned from a long walk in the woods, what she has observed. " Nothing in particular," she replied. How was it possible. I asked myself, to walk for an hour through the woods and see nothing worth of note?

3. I, who cannot see, find hundreds of things to interest me, through mere touch. I feel the delicate happy quiver of a bird in full song.

4. At times, my heart cries out with longing to see all these things. If I can get so much pleasure from mere touch, how much more beauty must be revealed by sight, I have imagined what I would like to see if I were given the use of my eyes say, just for a few days. I would want to see the people, whose kindness, and gentleness, companionship has made my life worth living.

On the basis of reading the given passage, answer the following questions: marks)

- a) Why does the narrator say that it would be a blessing if each human being was stricken blind and deaf for a few days?
- What did the narrator ask her friend who had returned from a walk? b)
- What reply did her friend give the narrator? c)
- How did the narrator find things interesting to her? d)
- Complete the following:e)
 - I touch the branches of the trees hopefully.
- Why does the narrator consider herself to be fortunate? f)
- "I would want to see the people whose kindness and gentleness, and companionship has made g) my
 - life worth living".-

"What does the phrase" life worth living refer to "-

Choose the correct option:-

- a) Opportunity to travel overseas
- b) Inability to hear and see
- c) Education and achievements
- d) Qualities that helped her survive and overcome the difficulties that she faced due to her disabilities.
- What longing did the narrator have? h)
- Find words from the passage that mean the same as:i)
 - i) to watch steadily- para(2)
 - ii) something that should receive support respect or attention para (4)

SECTION -B (Writing)

2. R J Public school is located in a central government employees residential colony. Cultural society of the school has decided to organize a Fancy Dress show on 25th of January in which each participant will wear the dress particular to his/her region. The aim is to show the cultural diversity of India. As the secretary, write a notice in about 50 words inviting the names of those who want to participate.

SECTION –C (Literature)

3. Read the extract and answer the questions that follow :-

Driving from my parent's home to Cochin last Friday morning, I saw my mother, beside me, doze, open mouthed, her face ashen like that of a corpse and realized with pain that she was as old as she looked but soon put that thought away _

a) Where was the poet going?

-6 marks

-5 marks

- b) What was the narrator's mother doing?
- c) "Her face ashen like that of a corpse"
- Bring out the literary device used in the above line:-
- d) What does a corpse refer to?
- e) What thought did the poet refer to?
- f) Name the poem from which the extract is taken?

4. Read the given extract and answer the questions:-

(4) I never went back to the pool, I feared water, I avoided, it whenever I could.

- a) Whom does I refer to?
- b) What feared the narrator and what did he do?
- c) Was the narrator able to conquer his fear?
- d) Name the lesson and the writer.

5. Answer the following questions briefly:-

a) Why are the young trees described as sprinting? (My mother at sixsty-six)

- b) What do the parting words of the poet and smile signify?
- c) Why was Franz unhappy as he set out for school.
- d) What was the writer's misadventure in the YMCA pool?
- e) "The last moments with M.Hamel were emotional" expound upon this.
- Answer in details 6.

(5)

 $(5 \times 2 = 10)$

"The people in this story suddenly realize how precious their language is to them" Discuss.

JAWAHAR HIGHER SECONDARY SCHOOL – NEYVELI REVISION EXAM – I – 2022 - 2023 MATHEMATICS

CLASS: XII DATE: 04.07.2022

MARK: 40 TIME : 1 hrs

SECTION – A $(2 \times 2 = 4)$

- 1. Construct a 2 × 2 matrix whose elements are given by $a_{ij} = |-2i + 3j|$
- 2. If $\begin{bmatrix} 2 \\ 3 \end{bmatrix} + y \begin{bmatrix} -1 \\ 1 \end{bmatrix} = \begin{bmatrix} 10 \\ 5 \end{bmatrix}$ find x and y.

- 3. Prove that the inverse of a square matrix, if it exists, is unique.
- 4. Find the matrix X so that $X\begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix} = \begin{bmatrix} -7 & -8 & -9 \\ 2 & 4 & 6 \end{bmatrix}$
- 5. The bookshop of a particular school has 10 dozen Chemistry books, 8 dozen Physics books, 10 dozen Economics books. Their selling prices are Rs.80, Rs.60 and Rs.40 each respectively Find the total amount the bookshop will receive from selling all the books using matrix algebra.
- 6. (i) If $A = \begin{bmatrix} \cos \alpha & -\sin \alpha \\ \sin \alpha & \cos \alpha \end{bmatrix}$, then for what value of α , *A* is an identity matrix.

(ii) If a matrix has 10 elements, what are the possible orders it can have?

(iii) Write a square matrix of order 2 which is both symmetric and Skew – Symmetric.

SECTION – C (6 x 4 = 24)

7. If = $\begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{bmatrix}$, Prove that,

$$A^{n} = \begin{bmatrix} 3^{n-1} & 3^{n-1} & 3^{n-1} \\ 3^{n-1} & 3^{n-1} & 3^{n-1} \\ 3^{n-1} & 3^{n-1} & 3^{n-1} \end{bmatrix}, n \in \mathbb{N}$$

8. Express the matrix $A = \begin{bmatrix} 3 & 5 \\ 1 & -1 \end{bmatrix}$ as the sum of a symmetric and a skew symmetric matrix.

9. (i) Find X and Y if
$$X + Y = \begin{bmatrix} 7 & 0 \\ 2 & 5 \end{bmatrix}$$
 and $X - Y = \begin{bmatrix} 3 & 0 \\ 0 & 3 \end{bmatrix}$

(ii) If $A = a_{ij} = \begin{bmatrix} 2 & 3 & -5 \\ 1 & 4 & 9 \\ 0 & 7 & 2 \end{bmatrix}$ and $B = b_{ij} = \begin{bmatrix} 2 & 1 & -1 \\ -3 & 4 & 4 \\ 1 & 5 & 2 \end{bmatrix}$ Find $a_{13} + b_{23}$

10. If $A = \begin{bmatrix} 3 & -5 \\ -4 & 2 \end{bmatrix}$ find $A^2 - 5A - 14$ I. Using this result find A^3 .

11. If $A = \begin{bmatrix} 1 & 5 \\ 7 & 12 \end{bmatrix}$ $B = \begin{bmatrix} 9 & 1 \\ 7 & 8 \end{bmatrix}$ find a matrix *C* such that 3A + 5B + 2C is a null matrix. 12. (i) If $A = \begin{bmatrix} 0 & a & 3 \\ 2 & b & -1 \\ c & 1 & 0 \end{bmatrix}$ is as Skew – symmetric matrix find *a*, *b* & *c*. (ii) If $A^1 = \begin{bmatrix} -2 & 3 \\ 1 & 2 \end{bmatrix}$ and $B = \begin{bmatrix} -1 & 0 \\ 1 & 2 \end{bmatrix}$ find $(A + 2B)^1$ CLASS: XII DATE : 08/07/2022

JAWAHAR HIGHER SECONDARY SCHOOL, NEYVELI REVISION TEST – I BIOLOGY

MARKS : 35 TIME: 1Hr

General instructions:

- i) All questions are compulsory
- ii) The question paper has four sections and 16 questions. All questions are compulsory.
- iii) Section A has 5 questions of 1 marks each, Section B has 5 questions of 2 marks each and Section C has 5 questions of 3 marks each and Section – D has 1 questions of 5 marks.
- v) Wherever necessary, neat and properly labelled diagrams should be drawn.

SECTION - A

- 1. Why does endosperm development precede embryo development?
- 2. Name the type of pollination in : i) grasses ii) Water lily
- 3. State two advantages of an apomictic seed to a farmer.
- 4. Why are outbreeding devices developed by some flowering plants?
- 5. Name the product of fertilisation that forms the kernel of coconut. how does the kernel differ from coconut water?

SECTION - B

- 6. How is it possible in oxalis and viola plants to produce assured seed sets even in the absence of pollinators?
- 7. List the advantage offered by seeds to angiosperms?
- 8. Do all pollen grains remain viable for the same length of time? Support your answer with two suitable examples.
- 9. Difference between geitonogamy and xenogamy in plants. Which method maintains purity of characters.
- 10. During an excavation assignment scientists collected pollen grains of a plant preserved in deeper layers of soil. Analyse the preparation of pollen grains which help in the fossilization. SECTION – C
- 11. Describe the characteristic features of wind pollinated flowers.
- 12. Even though each pollen grain has two male gametes, why are at least 10 pollen grains and not 5 pollen grains required to fertilise 10 ovules present in a particular carpel?
- 13. How does a chasmogamous bisexual flower prevent self pollination?
- 14. In the T.S. of a mature anther given below, identify A, B, C, and mention their function.



- **15.** Draw a diagrammatic sectional view of a mature anatropous ovule and label the following parts in it.
 - (i) That develops into seed coat
 - (ii) That develops into an embryo after fertilization
 - (iii) That develops into an endosperm in an albuminous seed
 - (iv) Through which the pollen tube gain entry into the embryo sac
 - (v) That attaches the ovule to the placenta

SECTION - D

- 16. a) Explain the monosparic development of female gametophyts from a megaspore mother cell in an angiosperm.
 - b) Draw a labelled diagram of a fully development embryo sac

JAWAHAR HIGHER SECONDARY SCHOOL – NEYVELI REVISION EXAM – I – 2022 - 2023 COMPUTER SCIENCE

MARK: 40 TIME : 1 hrs

SECTION – A

 $(6 \times 2 = 12)$

- 1. What are tokens in Python? How many types of tokens are allowed in python?
- 2. Explain Dynamic Typing with a help of an Example?
- 3. Consider the below given function headers. Identify which of these will cause error and why?
 - (i) def fun(a = 1, b):
 - (ii) def fun(a = 1, b, c = 2):
 - (iii) def fun(a = 1, b = 2, c = 3):
 - (iv) def fun(a = 10, b = 20, c, d):
- 4. Can a function return multiple values? Give Examples (any two)
- 5. Predict the output of the following code fragment?

def change
$$(P, Q = 30)$$
:
 $P = P + Q$
 $Q = P - Q$
print P , "#", Q)
return (P)
 $R, S = 150, 100$
 $R = Change (R, S)$
print $(R, "#", S)$
 $S = Change (S)$

- 6. Find the invalid Identifier from the following:
 - (a) sum
 (d) sum_sal

 (b) 2sum
 (e) sum+sal

 (c) sum5
 (f) sum; sal

SECTION – B

 $(5 \times 3 = 15)$

- 1. What is the difference between a keyword and an Identifier?
- 2. Differentiate between fruitful function and non fruitful function?
- 3. Explain the use of global key word used in a function with the help of a suitable example.
- 4. Trace the following code and predict output produced by it. (line numbers have been given for your reference)

1.	def	power (6 , <i>P</i>):	6.	a = power(x, 2)
2.		y = b * p	7.	return a
3.		return y	8.	
4.			9.	n = 5
5.	def	calcsq (x) :	10.	result = calcsq (n) + power $(3, 3)$
			11.	print (result)

5. Explain positional arguments with a help of a program code. (Use this function header) def sum(a, b):

$$SECTION - C \qquad (2 \times 4 = 8)$$

- 1. What is the difference between a local variable and a global variable? Also give a suitable Python code to illustrate both.
- 2. Write a function to calculate volume of a box with appropriate default values for its Parameters.
 [Function should have the following input Parameters]
 (a) length of box
 - (a) length of box (b) width of box (c) height of box

JAWAHAR HIGHER SECONDARY SCHOOL – NEYVELI **REVISION EXAM – I – 2022 - 2023** PHYSICS

CLASS: XII DATE: 11.07.2022

Answer the following questions:

SECTION - A

- 1. Two charges q_1 and q_2 are separated by a small distance, satisfy $q_{1+}q_2 = 0$. What does it tell about the charges?
- 2. The dielectric constant of water is 80. What is its permittivity?
- 3. Define Electric field at a point. Write its unit.
- 4. (a) What is the charge of a dipole? (b) Is electric dipole moment a scalar or vector quantity?
- 5. Draw the pattern of electric field around a point charge (i) q > 0 (ii) q < 0
- 6. (a) What is the electric flux through a cube of side 1 cm. Which encloses an electric dipole. (b) How much is the flux through a closed surface due to a charge lying outside the closed surface?

- 7. (a) State Coulomb's law of Electrostatics.
 - (b) The sum of two point charges is 7µC. They repel each other with a force of 1N when kept 30cm apart in free space. Calculate the value of each charge?
- 8. (a) state Gauss's law of Electrostatics.
 - (b) If $\vec{E} = 6\hat{i} + 3\hat{j} + 4\hat{k}Nc^{-1}$. Calculate the electric flux through a surface area of 20 m^2 in y - z plane.
- 9. Write the properties of Electric Field lines.
- 10. Derive an expression for the electric field at a point on the axis of an electric dipole of dipole moment 'P'.
- 11. (a) Obtain an expression for torque experienced by an electric dipole of dipole moment P in an uniform electric field.
 - (b) What will happen if the field were not uniform.
- 12. Five point charges each of value +q coulomb are placed on five vertices of a regular hexagon of side L. meters. Find the magnitude of force on a charges -q coulomb placed at the centre of the hexagon.

$$SECTION - C \qquad (5 \times 1 = 5)$$

Case Study Based Questions:

Electric charge is a fundamental property of every matter particle due to which it affects the near by charges electrically. The charges can attract and repel each other depending on the sign of the charges. An object is said to electrically positive when it has lost electrons and electrically negative when it gains electrons. The loss or gain of electrons can take place in a variety of ways. For example Lightening strikes deposit hundreds of coulombs of charges in a single strike.

- 13. An object loses 1000 electrons by the process of charging. What is the net charge on it. (a) +1.6 \times 10⁻¹⁶C (b) $-1.6 \times 10^{-16}C$ (a) $-1.6 \times 10^{-22}C$ (a) +1.6 \times 10⁻²²C
- 14. A body is positively charged it implies that
 - (a) the object has gained protons from surroundings
 - (b) the object has lost electrons from the body
 - (c) the object has gained electrons from the surroundings
 - (d) the object has lost protons from the body

 $(6 \times 2 = 12)$

MARK: 35

TIME : 1 hrs

15. Two objects q_1 and q_2 attract each other. When

(a) $q_1 q_2 < 0$ (b) $q_1 q_2 > 0$ (c) $q_1 q_2 = 0$

(d) Cannot be ascertained as the sign of the charges are not given.

16. Which of the following charges are not possible for an object to acquire.

- (a) $-3.2 \times 10^{-19}C$ (b) $+2.4 \times 10^{-9}C$ (c) $+3.2 \times 10^{-19}C$ (e) $4.8 \times 10^{-19}C$
- 17. A polythene piece has +7c of charge on it. If another -9c is given to it, then what will be the total charge on it?

(a) -2C (b) +2C (c) +16C (d) -16C

```
********
```

JAWAHAR HIGHER SECONDARY SCHOOL – NEYVELI REVISION EXAM – II – 2022 - 2023 PHYSICS

CLASS: XII DATE: 25.07.2022

SECTION – A

MARK: 35 TIME : 1 hrs (6 x 2 = 12)

 $(6 \times 3 = 18)$

- 1. A short electric dipole has dipole moment of 4×10^{-9} cm. Determine the electric potential due to dipole at a point due to the dipole at a point distant 0.3 m from the centre of the dipole situated. (a) on the anial line
 - (b) on the equatorial line
- 2. Define electric potential energy. Give its expression for the system of N point charges.
- 3. Draw the pattern of equipotential surfaces for
 - (i) a positive point charge
 - (ii) two equal and opposite point charges
 - (iii) two equal positure charges
 - (iv) for a uniform elector field
- 4. (a) Define the unit of capacitance of a conductor.
 - (b) The given graph shows the variation of charge q versus potential difference V for two capacitors C_1 and C_2 . The two capacitors have same plate separation but the plate area of C_2 is doubled than that of C_1 . Which of the lines in the graph correspond to C_1 and C_2 and why?

SECTION – B

- 7. (a) State Coulomb's law of Electrostatics.
 - (b) The sum of two point charges is 7µC. They repel each other with a force of 1N when kept 30cm apart in free space. Calculate the value of each charge?
- 8. (a) state Gauss's law of Electrostatics.
 - (b) If $\vec{E} = 6\hat{i} + 3\hat{j} + 4\hat{k} Nc^{-1}$. Calculate the electric flux through a surface area of 20 m^2 in y z plane.
- 9. Write the properties of Electric Field lines.
- 10. Derive an expression for the electric field at a point on the axis of an electric dipole of dipole moment 'P'.
- 11. (a) Obtain an expression for torque experienced by an electric dipole of dipole moment P in an uniform electric field.
 - (b) What will happen if the field were not uniform.
- 12. Five point charges each of value +q coulomb are placed on five vertices of a regular hexagon of side L. meters. Find the magnitude of force on a charges -q coulomb placed at the centre of the hexagon.

Case Study Based Questions:

Electric charge is a fundamental property of every matter particle due to which it affects the near by charges electrically. The charges can attract and repel each other depending on the sign of the charges. An object is said to electrically positive when it has lost electrons and electrically negative when it gains electrons. The loss or gain of electrons can take place in a variety of ways. For example Lightening strikes deposit hundreds of coulombs of charges in a single strike.

- 13. An object loses 1000 electrons by the process of charging. What is the net charge on it. (a) $+1.6 \times 10^{-16}C$ (b) $-1.6 \times 10^{-16}C$ (a) $+1.6 \times 10^{-22}C$ (a) $-1.6 \times 10^{-22}C$
- 14. A body is positively charged it implies that
 - (a) the object has gained protons from surroundings
 - (b) the object has lost electrons from the body
 - (c) the object has gained electrons from the surroundings
 - (d) the object has lost protons from the body

- 15. Two objects q_1 and q_2 attract each other. When
 - (a) $q_1 q_2 < 0$ (b) $q_1 q_2 > 0$ (c) $q_1 q_2 = 0$
 - (d) Cannot be ascertained as the sign of the charges are not given.
- 16. Which of the following charges are not possible for an object to acquire.
 - (a) $-3.2 \times 10^{-19}C$ (b) $+2.4 \times 10^{-9}C$
 - (c) $+3.2 \times 10^{-19}C$ (e) $4.8 \times 10^{-19}C$
- 17. A polythene piece has +7c of charge on it. If another -9c is given to it, then what will be the total charge on it?
 - (a) -2C (b) +2C (c) +16C (d) -16C

JAWAHAR HIGHER SECONDARY SCHOOL – NEYVELI REVISION EXAM – I – 2022 - 2023 CHEMISTRY

CLASS: XII DATE: 15.07.2022

I. Answer the following questions:

- 1. Define: (i) Molarity (ii) Molality
- 2. What are the various factors which affect the solubility of solid in a liquid? Explain any one.
- 3. Why do gases nearly always tend to be less soluble in liquid as the temperature is raised?
- 4. Henry's law constant for the molality of methane in benzene at 298k is $4.27 \times 10^5 mm$ of Hg. Calculate the solubility of methane in benzene at 298k under 760mm of Hg.
- 5. Out of 0.1 molal solutions of glucose and sodium chloride each, which one will have a higher boiling point?

II. Answer the following questions:

- 6. Differentiate the following:
 - (i) aqueous solution and Non aqueous solution
 - (ii) Ideal solution and non ideal solution
- 7. Define azeotropes. what type of azeotrope is formed by the positive deviation from Raoult's law? Give an example.
- 8. A solution is prepared by dissolving 10 g non volatile solute in 200 g of water. It has a vapour pressure of 31.84 mm of Hg at 308 k. Calculate the molar mass of the solute. (Vapour pressure of pure water at 308 k = 32 mm of Hg)

9. Calculate the boiling point elevation for a solution prepared by adding 10*g* of *CaCl*₂ to 200*g* of \ water.

 K_b for water = 0.52 K Kg mol⁻¹ Mol mass of Ca Cl_2 = 111g mol⁻¹

- 10. 45g of ethylene glycol($C_2H_6O_2$) is mixed with 600 g of water. Calculate,
 - (a) freezing point depression
 - (b) The freezing point of the solution

III. Answer the following questions:

- 11. Define the term osmosi's and Osmotic pressure. What is the advantages of using osmotic pressure as compared to other colligative properties for the determination of molar masses of solutes in solutions?
- 12. (i) State Henry's Law. Mention its two important applications.
 - (ii) Explain Van't Hoff factor
 - (iii) Explain Abnormal molar mass

(2 x 5 = 10)

(5 x 3 = 15)

MARK: 35

TIME : 1 hrs

 $(5 \times 2 = 10)$