



ST. ANGEL'S SCHOOL
SUMMER HOLIDAYS
HOMEWORK(2019-20)

CLASS XII

ENGLISH

Lesson 1 The Last Lesson by Alphonse Daudet (Short answer type questions)

- Q 1 What was tempting Franz to keep away from school on the day of last lesson?
- Q 2 What did Franz notice that was unusual about the school that day?
- Q 3 What shows M. Hamel's love for the French language?
- Q4 Why does M. Hamel reproach himself for his students' unsatisfactory progress in studies?
- Q5 'A teacher should be a friend philosopher and guide for his pupils.' Do you think M. Hamel fits into this image?

(Long answer type question)

- Q6. How did procrastination (act of putting something off till some future time) in learning French cost the French people dearly ?How can the vice of procrastination be over come ?

Lesson 2 Lost Spring by Anees Jung (Short answer type questions)

- Q 1 Food is more important for survival than identity for the ragpickers , says the narrator do you agree?
- Q2 Why had ragpickers come to live in Seemapuri?
- Q 3 "It is his karam, his destiny,". Says Mukesh's grandmother.Why can't they break their lineage?
- Q4 How is Mukesh's attitude to his situations different from that of his family members?
- Q5 Justify the title 'Lost Spring'.

(Long answer type question)

- Q 6 If we all take a pledge to listen the voice of our conscience, the vice of child labour and exploitation would be easily eradicated from society. Comment.

Lesson 3 Deep Water by William Douglas (Short answer type questions)

- Q 1 How did Douglas' misadventure at the YMCA pool affect his later life?
- Q-2 What did Douglas learn from his experience of drowning?
- Q-3 Describe the various attempts that Douglas had to make while he was in the Y.M.C.A. pool?
- Q4 How did William Douglas aversion to water begin? (Write both incidents)
- Q5 How did Douglas make sure that he conquered the old terror.

(Long answer type question)

Q-6 Taking references from the story 'Deep Water', write a paragraph on 'Practice makes a man perfect'?

Poem-1: My Mother At Sixty-Six by Kamala Das (Short answer type questions)

Q-1 Write the central theme of the poem 'My Mother At Sixty-Six'?

Q-2 Why has the poetess brought in the image of the merry children spilling out their homes?

Q-3 What is the kind of pain and ache that the poetess feels?

Q-4 Why has the mother been compared to the late winter's moon?

Q-5 What were Kamala Das' fears as a child? Why do they surface when she is going to the airport?

(Long answer type question)

Q-6 Through the thoughts of the poetess, the poem comes a full cycle. Explain.

Poem -2: An Elementary School Classroom in a Slum by Stephen Spender (Short answer type questions)

Q-1 How is 'Shakespeare wicked and the map a bad example' for the children of the school in a slum?

Q-2 Describe the life of the children of the elementary school in the Tyrolean slum valley?

Q-3 What does the poet mean by saying, 'let their tongues run naked into books'?

Q-4 'History is theirs whose language is the sun.' Explain.

Q-5 What is the theme of the poem?

(Long answer type question)

Q-6 Bring out the optimism in the poem.

Poem -3: Keeping Quiet by Pablo Neruda (Short answer type questions)

Q-1 What will 'counting up to twelve and keeping still' help us to achieve?

Q-2 Why does one feel a sudden strangeness on counting to twelve and keeping quiet?

Q-3 Which is the exotic moment that the poet refers to in 'Keeping Quiet'?

Q-4 Do you think the poet advocates total inactivity and death? Why/ Why not?

Q-5 What are the different types of wars mentioned in the poem?

(Long answer type question)

Q-6 How is the silence that the poet looks forward to different from absolute sluggishness?

VISTAS

Lesson-1: The Third Level by Jack Finney (Short answer type questions)

- Q1 Do you think that the third level was a medium of escape for Charley?
- Q2 What did Charley's friend say about third level?
- Q3 What was the reaction of the clerk at the ticket counter to Charley? Why?
- Q4 What is a first day cover?
- Q5 What convinced Louisa and Charley about the existence of the third level?

(Long answer type question)

- Q6 'The modern world is full of insecurity, fear, war, worry and stress'. What are the ways in which we attempt to overcome them?

Lesson-2: The Tiger King by Kalki (Short answer type questions)

- Q-1 What happened to the tiger provided by the Dewan sahib?
- Q-2 How did the tiger king acquire his name ?
- Q-3 What negative value governed the character of Durai and Duraisani?
- Q4 Why did the Maharaja ban tiger hunting in the state?
- Q5 How did the Tiger King kill the hundredth tiger?

(Long answer type question)

- Q-6 Taking ideas from the lesson 'The Tiger King', together with your own ideas write an article on the topic 'Say No to Callousness Towards Wild Life.'

Lesson-3: Journey to the End of the Earth by Tishani Doshi (Short answer type questions)

- Q1 How does the writer, create a sense of distance between the rest of the world and Antarctica?
- Q2 Write a brief note on the Russian Ship, Akademik Shokalskiy.
- Q3 What does the writer say about the geological history of Antarctica?
- Q4 Describe the impact of Antarctica on the writer.
- Q5 How has man played havoc with the ecological health of the earth?

(Long answer type question)

- Q6 To the writer, the Antarctic experience very poignantly underlined the fact the everything in this creation is interlinked. Elaborate.

WRITING SKILLS

Notice Writing

- Q-1 As secretary Old students' Association, draft a notice to be put up on the notice board regarding a meeting to be held for the celebration of annual Alumni Meet.
- Q2 Your school is organising a two day Integration Camp for special children. There will be art work, music, song and dance competition. As the Cultural Incharge, draft a notice inviting names of volunteers participants from classes XI-XII

Advertisement

- Q-1 You are the General Manager of Ivry Software Solutions, Agra Cantt., Agra. You need a Software Engineer for your organization. Draft an advertisement not more than 50 words to be published in The Times Of India, under the classified columns.
- Q2 You want to sell off your car as you are leaving the country. Draft a suitable advertisement to be inserted in "The Hindu". Write the advertisement in not more than 50 words.

Letter Writing

- Q-1 Recently you went to your native village to visit your grandparents. You saw that some of the children in the age group of 5-14 (the age at which they should have been at school) remained at home, were working in the fields or simply loitering in the streets.
Write a letter to the editor of a National Daily analysing the problem and offering solutions to it. You are Navtej/Navita, M-114, Mount Kailash, Kanpur.
- Q2. As a regular commuter by bus from Noida to Delhi, you have been witnessing rash driving by the bus drivers daily without an exception. Write a letter to the Editor, 'The Times Of India' drawing the attention of the General Manager, Delhi Transport Corporation to this problem. You are Preeti/Prakash, 15 Udyog Vihar, Noida.

Speech Writing

- Q-1 Write a Speech to be given on 14th of August, in the morning assembly of your school, in about 150-200 words, on 'The Need to Celebrate 15th August and 26th January in school rather than enjoying a holiday at home'.
- Q2 Write a speech on the topic "Corruption is an evil which prevails in each and every nook and cranny of our lives".

Article Writing

- Q-1 Bullying of any kind in school can lead children to feel tense and afraid. For some, the effects of bullying last a life time. The teachers and parents can play an important role to curb this menace. You are Mohit/Mohini. Write an article on bullying in school in about 150-200 words.
- Q2 You are Raman/ Ruchika. Write an article for your school magazine on the topic:- "Life without Modern Gadgets".

SUBJECT TEACHER _____

HOD _____

MATHS

MATRICES

Q1(i) If a matrix has 12 elements, what are the possible orders it can have? What if it has 7 elements?

(ii) If a matrix has 8 elements, what are the possible orders it can have? What if it has 5 elements?

Q2. Construct a 2×3 matrix whose elements in the i^{th} row and j^{th} column is given by :-

$$(i) \quad a_{ij} = \frac{i+3j}{2} \quad (ii) \quad a_{ij} = \frac{2i+3j}{2} \quad (iii) \quad a_{ij} = \frac{3i+j}{2} \quad (iv) \quad a_{ij} = \frac{3i-j}{2}$$

Q3. Construct a 4×3 matrix whose elements are:-

$$(i) \quad a_{ej} = 2i + \frac{e^j}{f} \quad (ii) \quad a_{ej} = \frac{i-j}{j+j} \quad (iii) \quad a_{ej} = i$$

Q4. If

$$\begin{pmatrix} 2+3 & 2+4 & 2y-7 \\ 4x+6 & a-1 & 0 \\ b-3 & 3b & z=2c \end{pmatrix} = \begin{pmatrix} 0 & 6 & 3y-2 \\ 2x & -3 & 2c-2 \\ 2b+4 & -21 & 0 \end{pmatrix}$$

Obtain the values of a, b, c, x, y and z.

Q5. Find matrices x and y i.e.

$$2x-y = \begin{pmatrix} 6 & -6 & 0 \\ -4 & 2 & 1 \end{pmatrix} \quad \text{and } x+2y = \begin{pmatrix} 3 & 2 & 5 \\ -2 & 1 & -7 \end{pmatrix}$$

Q6. Find the value of x such that :-

$$[1 \quad 1 \quad x] \begin{pmatrix} 1 & 0 & 2 \\ 0 & 2 & 1 \\ 2 & 1 & 0 \end{pmatrix} \begin{pmatrix} 1 \\ 1 \\ 1 \end{pmatrix} = 0$$

Q7. If $A = \begin{pmatrix} 3 & -4 \\ 1 & -1 \end{pmatrix}$, prove that $A^n = \begin{pmatrix} 1+2n & -4n \\ n & 1-2n \end{pmatrix}$ where n is any positive integer.

Q8. If $A = \begin{pmatrix} 1 & 2 & 0 \\ 3 & -4 & 5 \\ 0 & -1 & 3 \end{pmatrix}$, find $A^2 - 4A + 3I_3$

Q9. Express the matrix $A = \begin{pmatrix} 4 & 2 & -1 \\ 3 & 5 & 7 \\ 1 & -2 & 1 \end{pmatrix}$ as the sum of a symmetric and a skew symmetric matrix

DETERMINANTS

Using properties of determinants, prove that :-

$$1. \begin{vmatrix} 1 & 1 & 1 \\ a & b & c \\ bc & ca & ab \end{vmatrix} = (a-b)(b-c)(c-a) \quad 2. \begin{vmatrix} 1 & a & a^2 \\ 1 & b & b^2 \\ 1 & c & c^2 \end{vmatrix} = (a-b)(b-c)(c-a)$$

$$3. \begin{vmatrix} 1 & 1 & 1 \\ 1 & 1-x & -1 \\ 1 & 1 & 1+y \end{vmatrix} = xy \quad 4. \begin{vmatrix} a+2a & 2a+1 & 1 \\ 2a+1 & a+2 & 1 \\ 3 & 2 & 1 \end{vmatrix} = -2(x^3+y^3)$$

$$5. \begin{vmatrix} x & y & x+y \\ y & x+y & x \\ x+y & x & y \end{vmatrix} = -2(x^3+y^3) \quad 6. \begin{vmatrix} a & b & c \\ a^2 & b^2 & c^2 \\ a^3 & b^3 & c^3 \end{vmatrix} = abc(a-b)(b-c)(c-a)$$

$$7. \begin{vmatrix} a & b-c & c+b \\ a+c & b & c-a \\ a-b & a+b & c \end{vmatrix} = (a+b+c)(a^2+b^2+c^2)$$

$$8. \begin{vmatrix} x & x^2 & 1+px^3 \\ y & y^2 & 1+py^3 \\ z & z^2 & 1+pz^3 \end{vmatrix} = (1+pxyz)(x-y)(y-z)(z-x), \text{ where } p \text{ is a scalar.}$$

Q9. Find the area of the triangle whose vertices are A(-2, -3), B(3,2) and C (-1, -8)

Q10. Show that the pts A(a+b+c), B(b+c+a) and C (c+a+b) are collinear. Find the inverse of each of the matrices given below :-

$$Q11. \begin{vmatrix} 3 & -5 \\ -1 & 2 \end{vmatrix} \quad Q12. \begin{vmatrix} 1 & 2 & 5 \\ 1 & -1 & -1 \\ 2 & 3 & -1 \end{vmatrix} \quad Q13. \begin{vmatrix} 2 & -1 & -1 \\ 3 & 0 & -1 \\ 2 & 6 & 0 \end{vmatrix}$$

$$Q14. \begin{vmatrix} 2 & -3 & 3 \\ 2 & 2 & 3 \\ 3 & -2 & 2 \end{vmatrix} \quad Q15. \begin{vmatrix} 8 & -4 & 1 \\ 10 & 0 & -6 \\ 8 & 1 & 6 \end{vmatrix}$$

$$Q16. \begin{cases} 5x+2y=4 \\ 7x+3y=5 \end{cases} \quad Q17. \begin{cases} 3x+4y-5=0 \\ x-y+3=0 \end{cases} \quad Q18. \begin{cases} 3x-2y+3z=8 \\ 2x+y-z=1 \\ 4x-3y+2z=4 \end{cases}$$

$$Q19. \begin{cases} x-y+z=-1 \\ 2x+y-z=2 \\ x-2y-z=4 \end{cases} \quad Q20. \begin{cases} x+y+z=4 \\ 2x-y+z=-1 \\ 2x+y-3=-9 \end{cases} \quad Q21. \begin{cases} 4x+2y+3z=5 \\ x-2y+z=-4 \\ 3x-y-2z=3 \end{cases}$$

$$Q22. \begin{cases} 4x+2y+3z=9 \\ X+y+z=1 \\ 3x+y-2z=1 \end{cases} \quad Q23. \begin{cases} 3x-4y+2z=-1 \\ 2x+3y+5z=7 \\ x+z=2 \end{cases} \quad Q24. \begin{cases} 6x-9y-20z=-4 \\ 4x-15y+10z=-1 \\ 2x-3y-5z=-1 \end{cases}$$

Continuity and Differentiability

One marks questions

Differentiate the following with respect to x:

- $2^{\cos^2 x}$ Ans:- $2^{\cos^2 x} \sin 2x \log 2$ (NCERT EXEMPLAR)
- $\log(x + \sqrt{a + x^2})$ Ans:- $\frac{1}{\sqrt{x^2+a}}$ (NCERT EXEMPLAR)
- $\sqrt{e^{\sqrt{x}}}$ Ans:- $\frac{e^{\sqrt{x}}}{4\sqrt{x}e^{\sqrt{x}}}$

Four marks questions

- If $\sin y = x \sin(a + y)$, prove that $\frac{dy}{dx} = \frac{\sin^2(a + y)}{\sin a}$
- If $y = x \sin y$, prove that $\frac{dy}{dx} = \frac{y}{x(1 - x \cos y)}$.
- If $\sqrt{1-x^6} + \sqrt{1-y^6} = a(x^3 - y^3)$, prove that $\frac{dy}{dx} = \frac{x^2 \sqrt{1-y^6}}{y^2 \sqrt{1-x^6}}$
- If $x = a(\cos t + t \sin t)$ and $y = a(\sin t - t \cos t)$, find the value of $\frac{dy}{dx}$ and $\frac{d^2y}{dx^2}$, when $t = \frac{\pi}{4}$.
- If $y = \log[x + \sqrt{x^2 + 1}]$, prove that $(x^2 + 1)y_2 + xy_1 = 0$.
- if $y = e^{a \cos^{-1} x}$, $-1 \leq x \leq 1$, show that $(1 - x^2)y_2 - xy_1 - a^2 y = 0$.

7. Differentiate with respect to x:

$$\text{a) } \tan^{-1} \left(\frac{\sqrt{1+\sin x} + \sqrt{1-\sin x}}{\sqrt{1+\sin x} - \sqrt{1-\sin x}} \right) \quad \text{Ans: } \frac{dy}{dx} = -\frac{1}{2}$$

8. If $y = \sin^{-1} \left(\frac{2x}{1+x^2} \right) + \sec^{-1} \left(\frac{1+x^2}{1-x^2} \right)$, prove that $\frac{dy}{dx} = \frac{4}{1+x^2}$.

9. Verify Rolle's theorem for the function $f(x) = \sin x - \sin 2x$ on $[0, \pi]$.

10. Verify Mean Value theorem for the function $f(x) = x^2 - 2x + 4$ on $[1, 5]$.

11. Find the values of 'a' and 'b' when

$$f(x) = \begin{cases} 3ax + b, & x > 1 \\ 11, & x = 1 \\ 5ax - 2b, & x < 1 \end{cases} \quad \text{is continuous at } x = 1. \text{ Ans: } a = 3, b = 2.$$

12. If $x^{13} \cdot y^7 = (x + y)^{20}$, prove that $\frac{dy}{dx} = \frac{y}{x}$.

13. If $y = \sqrt{\sin x + \sqrt{\sin x + \sqrt{\sin x + \dots \text{to } \infty}}}$, prove that $\frac{dy}{dx} = \frac{\cos x}{2y - 1}$.

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PHYSICS

Questions of Electrostatics

1. A spherical conducting shell of inner radius r_1 and outer radius r_2 has a charge 'Q'. A charge 'q' is placed at the centre of the shell. (a) What is the surface charge density on the (i) inner surface, (ii) outer surface of the shell? (b) Write the expression for the electric field at a point $x > r_2$ from the centre of the shell.
 2. Keeping the voltage of the charging source constant, what would be the percentage change in the energy stored in a parallel plate capacitor if the separation between its plates were to be decreased by 10%?
 3. A point charge causes an electric flux of $-1.0 \times 10^3 \text{ N m}^2/\text{C}$ to pass through a spherical Gaussian surface of 10.0 cm radius centred on the charge. (a) If the radius of the Gaussian surface were doubled, how much flux would pass through the surface? (b) What is the value of the point charge?
 4. In a medium the force of attraction between two point electric charges, distance d apart, is F . What distance apart should these be kept in the same medium so that the force between them becomes (i) $3F$, (ii) $F/3$?
 5. A parallel plate capacitor with air between the plates has a capacitance of 8 pF ($1 \text{ pF} = 10^{-12} \text{ F}$). What will be the capacitance if the distance between the plates is reduced by half, and the space between them is filled with a substance of dielectric constant ϵ ?
 8. In a hydrogen atom, the electron and proton are bound at a distance of about 0.53 Å:
 - (a) Estimate the potential energy of the system in eV, taking the zero of the potential energy at infinite separation of the electron from proton. (b) What is the minimum work required to free the electron, given that its kinetic energy in the orbit is half the magnitude of potential energy obtained in (a)? (c) What are the answers to (a) and (b) above if the zero of potential energy is taken at 1.06 Å separation?
 9. Two charged conducting spheres of radii a and b are connected to each other by a wire. What is the ratio of electric fields at the surfaces of the two spheres? Use the result obtained to explain why charge density on the sharp and pointed ends of a conductor is higher than on its flatter portions.
 10. An electrical technician requires a capacitance of $2 \mu\text{F}$ in a circuit across a potential difference of 1 kV. A large number of $1 \mu\text{F}$ capacitors are available to him each of which can withstand a potential difference of not more than 400 V. Suggest possible arrangement that requires the minimum number of capacitors.
- Q11. Draw an equipotential surface:
- (a) In a uniform electric field
 - (b) For a point charge < 0 .
- Q12. How will the capacitance of a capacitor change when a dielectric slab is introduced between the plates of a capacitor?
- Q13. How does the resistivity of a conductor depend upon the number density of free electrons and temperature?
- Q14. Show mathematically that the potential at a point on the equatorial line of an electric dipole is zero.

- Q15. A hollow metal sphere of radius 5cm is charged such that the potential on its surface is 10V. What is the potential at the center of the sphere?
- Q16. A charge of 12 C is given to hollow metallic sphere of radius 0.1m. Find the potential at (i) the surface of the sphere (ii) center of the sphere.
- Q17. Calculate the Coulomb force between a proton and an electron separated by 0.8×10^{-15} m.
- Q18 Calculate the Value of electric field exactly balancing the weight of an electron.
- Q19. Two capacitors 3 farad & 6 farad are connected in series with a 6 V battery. Which one will have higher potential?
- Q20. How does a torque affect the dipole in an electric field?
- Q21. 27 drops of same size are charged at 220V each. They collapse to form a bigger drop. Calculate the potential of the bigger drop.
- Q22. Draw a plot showing the variation of electric field & potential with distance due to a point charge.
- Q23. A wire of resistance 5 ohm is drawn out so that its length is increased to twice its original length. Calculate its original resistance.
- Q24. A lamp of 100 W works at 220 volt calculate its resistance & current capacity?
- Q25. Why are thick copper wires used as connecting wire?
- Q26. Why is the use of a potentiometer preferred over that of a voltmeter for measurement of E.M.F of a cell?
- Q27. Define resistivity of the material of a wire. State its S.I. unit.
- Q28. The storage battery of a car has an E.M.F. of 12 V. If the internal resistance of the battery is 0.4 ohm, what is the maximum current that can be drawn from the battery?

- **Students are required to make one project on any topic from the prescribed Syllabus mentioned in the practical book.**
- **Revise chapter 9 : Ray Optics.**

- **NCERT QUESTIONS**

1. Additional exercises of unit I – Electric Charges and Fields.

1.25 To 1.34 (page no. – 48 to 50) [Total =10]

2. Additional exercises of unit 2 – Electrostatic Potential and Capacitance.

2.12 To 2.37 (page no. – 88 to 92) [Total = 26]

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CHEMISTRY

General Instructions:-

1. Do the given assignments in a homework notebook. A copy of the assignments should also be pasted.
2. Select and get the topic of the project approved before making the project.
3. Make the project on the approved topic without filling in the observation table / experimental results.
4. Learn the Scheme for inorganic salt analysis by heart.

QUESTIONS

SOLUTIONS

1. Why does molality of a solution remain unchanged with temperature while molarity changes? (or) Why is it advantageous to use molality over molarity?
2. Two liquids boil at 145°C and 190° respectively. Which one has a higher vapour pressure at 80°C?
3. What would be the Van't Hoff factor of $K_3[Fe(CN)_6]$, K_2SO_4 , $K_4[Fe(CN)_6]$, $MgSO_4$, $NaCl$, KCl ?
4. Of 0.1 molal solutions of glucose and sodium chloride respectively, which one will have a higher boiling point
5. A and B on mixing produced a warm solution. What type of deviation is there and why? (or) Why is an increase in temperature observed on chloroform and acetone.
6. When 30 ml of ethyl alcohol and 30 ml of water are mixed, the volume of resulting solution is more than 60 ml. Explain.
7. A and B on mixing produced a colder solution. What type of deviation is there and why?
8. Which will have higher boiling point, 0.1M $NaCl$ or 0.1M $BaCl_2$?
9. Solution A is obtained by dissolving 1g of glucose in 100g of water and solution B by dissolving 1 g of urea in 100g of water. Which will have a higher boiling point and why?
10. Why is cooking temperature in a pressure cooker higher than in an open pan?
11. When is the value of Van't Hoff factor greater than 1 and less than 1?
12. In determination of molar mass of A^+B^- , using colligative property, what may be the value of Van't Hoff factor if the solute is 50% dissociated?

Electrochemistry

1. The conductivity of an aq. Solution of $NaCl$ in a cell is $92 \times 10^{-4} \text{ ohm}^{-1}\text{cm}^{-1}$. The resistance offered by the cell is 247.8ohm. Calculate the cell constant for the cell.
2. The conductivity of a solution containing 1g of anhydrous $BaCl_2$ in 200cm^3 of the solution is found to be 0.0058S/cm. Calculate the molar conductivity of the solution.
3. The resistance of a 0.01M solution of KCl is 100Ω at 298 K. Calculate (i) conductance (ii) conductivity (iii) resistivity
4. 0.5 molar solution of a salt placed between platinum electrodes 2 cm apart and each of area of cross section 4cm^2 has a resistance of 25Ω . Calculate λ_m . (40)

- Calculate the molar conductivity at infinite dilution of AgCl from the following data. $\Lambda^{\circ}m \text{ AgNO}_3 = 133.4$, $\Lambda^{\circ}m \text{ KCl} = 149.9$, $\Lambda^{\circ}m \text{ KNO}_3 = 144.9 \text{ Scm}^2/\text{mol}$
- The conductivity of 0.001 M acetic acid is $4.95 \times 10^{-5} \text{ S/cm}$. Calculate the dissociation constant. $\Lambda^{\circ}m = 90.5 \text{ Scm}^2/\text{mol}$.
- At 18 °C, the conductivities at infinite dilution of NH_4Cl , NaOH and NaCl are 129.8, 217.4 and 108.9 Scm^2/mol . If the equivalent conductivity of n/100 solution of NH_4OH is 9.93 Scm^2/eq , Calculate the degree of dissociation and dissociation constant at this dilution.
- Standard reduction potentials are given below
 $\text{F}_2/\text{F}^- = +2.9\text{V}$, $\text{Ag}^+/\text{Ag} = -0.8\text{V}$, $\text{Cu}^+/\text{Cu} = +0.5\text{V}$ $\text{Fe}^{2+}/\text{Fe} = -0.4\text{V}$, $\text{Na}^+/\text{Na} = -2.7\text{V}$, $\text{K}^+/\text{K} = -2.9\text{V}$
 a) Arrange oxidizing agents in order of increasing strength
 b) Which will oxidize Cu to Cu^+ under standard conditions

THE P-BLOCK ELEMENTS

- Which one of the following is not oxidised by O_3 . State the reason.
 KI , FeSO_4 , K_2MnO_4 , KMnO_4
- Thermal stability of hydrides of group 16 elements decreases down the group. Why?
- The electron gain enthalpy with negative sign for oxygen (-141 KJ Mol^{-1}) is numerically less than that for sulphur (-200 KJ mol^{-1}). Give reason. 222222222222
- What happens when sulphur dioxide gas is passed through an aqueous solution of a Fe(III) salt?
- Write the chemical equations of the following reactions
 (a) Glucose is heated with conc. H_2SO_4
 (b) Sodium nitrate is heated with conc. H_2SO_4
- Explain why?
 (i) H_2S is more acidic than H_2O .
 (ii) Two S–O bonds in SO_2 are identical.
 (iii) SF_6 is inert and stable but SF_4 is reactive.

Unit – 10 (Haloalkanes and Haloarenes)

- Why fluorination of hydrocarbons with F_2 gas occurs explosively?
- Give the name of the reaction, in which only haloarenes are treated with sodium, forming diaryls.
- Why the boiling points of chlorides, bromides and iodides are considerably higher than those of the hydrocarbons of comparable molecular mass?
- Give 1 test for detection of unsaturation (double or triple bond) in an organic molecule.
- For isomeric alkyl halides, the boiling points decrease with branching. Explain.
- Allyl chloride is more reactive than n - propyl chloride towards nucleophilic substitution reaction. Explain why?

SUBJECT TEACHER _____

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BIOLOGY

Ch. 01(Reproduction in Organisms)

- 1) What are the various different vegetative propagules in higher plants. Explain?
- 2) a) Why organisms with simple organization like algae and fungi reproduce asexually and multiply sexually on approach of unfavourable conditions?
b) Biological world shows great diversity and has evolved their own mechanism to reproduce and produce offspring. Name the factors that affect the mechanism of reproduction in them.
c) Due to natural calamities in a particular habitat, there was complete destruction in organisms inhabiting it but many organisms like some plants, insects etc. make their appearance after sometime. How do these organisms revive themselves?
d) Mention disadvantages of being a dieocious organism?
e) In nature the birds are seasonal breeders but in captivity, the birds can be made to produce eggs throughout the year. Can we call this as reproduction. Why/ why not?
- 3) How is asexual reproduction advantageous to certain plants?
- 4) How does potato propagate vegetatively?
- 5) How does sugarcane and dahlia cultivate?
- 6) Which factors determine the way an organism will reproduce?
- 7) Dieocious plants are not very common despite the advantages of cross pollination. why?
- 8) What is the significance of syngamy?
- 9) Differentiate between:
 - a) Parthenocarpy and parthenogenesis.
 - b) Zygosporangium and zygote.

Ch. 02(Sexual reproduction in flowering plants)

1. What changes occur in plant when it is about to enter reproductive phase?
2. What is a floral primordium?
3. Why are the pollen grains found well preserved as fossils?
4. What is the importance of vegetative cell in pollen grains?

5. How long do pollen grains of wheat and rice remain viable after pollination?
6. What are the characteristics features of megasporemother cell?
7. How do seed obtain water and oxygen for germination?
8. How are microspores produced in microsporangia?
9. Why is there a need to produce hybrid seed every year?
10. What are the adaptations in animophilous flowers?
11. A Bilobed ditheous anther has 100 microspore mother cells for microsporangium? How many male gametophyte this anther produce?

Ch. 03 (Human Reproduction)

1. Which layer lines the seminiferous tubules?
2. Name the cells that are present in germinal epithelium?
3. Why only one sperm is able to fuse with egg?
4. What is the function of acrosome present in sperm?
5. What is the function of trophblast?
6. What is the function of stem cells?
7. What is cholestrum?
8. Name the hormones produced after the release of gonadotrophin releasing hormone (GnRH) ? What functions do they perform in males ?
9. How is placenta formed after implantation of embryo?
10. Write the functions of placenta ?

Ch. 04 (Reproductive health)

1. Why are reproductive and child health care programmes important?
2. When is a society considered reproductively healthy?
3. Why has the use of NIRODH increase in the recent years?
4. Why are IUDs one of the most widely accepted methods of contraception in India ?
5. What is progestrogen?
6. What is a test tube baby programme?
7. What is amniocentesis?

SUBJECT TEACHER _____

HOD _____

COMPUTER SCIENCE

LESSION –1 C++ REVISION TOUR

1. Observe the following program very carefully and write the name of those header file(s), which are essentially needed to compile and execute the following program successfully:

```
typedef char text[50];
void main()
{
    text s[]="formal parameter";
    int i=0;
    while (str[i]!='\0')
        if(isupper(s[i]))
            s[i++]='#';
        else
            s[i++]='*';
    puts(s);
}
```

2. Write definition for a function Sumseries () in C++ with two arguments/ parameters-double x and int n. The function should return a value of type double and it should perform sum of the following series:

$$x - \frac{x^2}{3!} + \frac{x^3}{5!} - \frac{x^4}{7!} + \frac{x^5}{9!} \dots \dots \dots \text{Upto n terms}$$

3. Write the output of :

(a) int x=5, y=5;

```
cout<<x--;
```

```
cout<<x " ,";
```

```
cout<<
```

```
    cout<< " ,";
```

```
cout<<y- - << " , " << - - y;
```

(b) int Position (int &c1, int c2=5)

```
{
```

```
    c1+=5;
```

```
    c2+=10;
```

```
}
```

```
void main ( )
```

```
{
```

```
    int p1=10, p2=20;
```

```
    Position(p1);
```

```
    cout<<p1<<" , "<<p2<<endl;
```

```
Position(p2,p1);
```

```
    cout<<p1<<" , "<<p2<<endl;
```

```
}
```

4. Find the correct identifiers out of the following, which can be used for naming variable, constants or functions in a C++ program:

For, new, 2xyz, x%z, 2_xyz, 2-xyz, 2 xyz, _abc,xyz2

5. Rewrite the following program after removing all the syntax error(s), if any, after underlining each correction:

```
#define float max=50.0;
#include <iostream.h>
void main()
{   int s
char st='n';
cin>>s;
if s>st
    st='y';
cout<<st<<end;
}
```

6. Rewrite the corrected code for the following program . Underline each correction, if any

```
#include <iostream.h>
structure club
{
int mem num;
char mname[20];
char mtype[]="LIG";
};
void main()
{
club c;
cin>>memnum;
gets(name);
gets(mtype);
}
```

7. Study the following program code and select the possible output(s) from the options(i) to (iv) from it. Also, write the maximum and the minimum values that can be assigned to the variable NUM.

```
void main()
{   randomize();
int n=random(3)+2;
char text="IJKLMNOPQRS";
for(int i=1;i<=n;i++)
{ for(int j=n;j<=7;j++) cout<<text[j]; cout<<endl; } }
```

- (i) NOPQ
NOPQ
NOPQ
NOPQ
- (ii) JKLMNOP
JKLMNOP
- (iii) KLMNOP
KLMNOP
- (iv) MNOP
MNOP
MNOP

LESSON- 4 CLASSES AND OBJECTS

1. Define class. Give example.
2. How does a class enforce data hiding , abstraction and encapsulation. Explain with example.
3. What is an inline function? State its advantage and disadvantage.
4. Rewrite the program after correcting. Underlining each correction.

```
class serial
{
int serial_code;
char title[20];
public:
int no_episodes;
void accept(){cin>>serial_code>>title>>no_episodes;}
```

```
void disp(){cout<<serial code<<title<<no_episode;}};
```

```
void main()
{
  serial s;
  s.serial_code=10;
  s.no_episodes=10;
  s.accept();  disp(); }
5. Define a class Travelplan in C++ with the following description :
```

Private members

P_code long type
Place string type
Num_travellers integer type
Num_buses integer type

Public members

Newplan() accepts all the P_code,Place, Num_travellers. Assign Num_buses as per the following condition:

<i>Num_travellers</i>	<i>Num_buses</i>
Less than 20	1
Equal to more than 20 and less than 40	2
Equal to 40 or more than 40	3

LESSON- 7 DATA FILE HANDLING

1. Write difference between ios::app and ios::out.
2. Explain seekp() and tellp() with example.
3. Assuming the class Employee given below, write functions in C++ to perform following:
(i) Write objects of Employee to a binary file.
(ii) Read objects of Employee from a binary file and display the details of employees on the screen.
(iii) Read objects of Employee from a binary file and display the details of those employees whose salary is more than 10000.

```
class Employee
{
  int eno;
  char ename[10]; float salary;
public :
  void getit(){cin>>eno>>ename>>salary;}
  void show(){cout<<eno<<ename<<salary;}};
```

4. Write a user-defined function to read the contents from a text file STORY.TXT, count the no. of alphabets present in it.

LESSON –11 DATABASE CONCEPTS

- 1.What is the function of Database Management System ?
- 2.Define Database.
- 3.Define following keys with example.
(a) primary key (b) candidate key
- 4.Define the following terms in context of RDBMS:
(i) Relation (ii) Domain (iii) Tuple (iv) Attribute
- 5.What is cartesian product ? Explain with example.
- 6.Consider the two relations given below

Book**Vendor**

Title	Author	Cost
A	X.Y	50.00
B	A.K	100.00
C	S.T.P	110.00

Code	Address
C1	XYZ
D1	YYZ
E1	AAB

Perform the Cartesian product of the relation Book and Vendor.

What is the degree of Book and Vendor tables? What is the cardinality of Book and Vendor tables?

What is the cardinality of Book and Vendor tables? What the degree and cardinality of Cartesian product of Book and Vendor.

Explain degree and cardinality with example.

7. What are the advantages and disadvantages of database management system.

8. If R1 is a relation with 5 rows and R2 is a relation with 3 rows, how many rows will the cartesian product of R1 and R2 have ?

LESSON -12 STRUCTURED QUERY LANGUAGE

1. Explain DDL and DML with example.
2. Difference between DROP table and Delete Command.
3. Compare Distinct and ALL keywords when used with select command.
4. Consider the following tables GAMES and PLAYER. Write SQL commands for the statements (i) to (xvi) and give outputs for SQL queries (xvii) to (xi)

Table: GAMES

G Code	G Name	Number	Prizemoney	Schdate
1	Caram Board	2	5000	23-Jan-2006
2	Badminton	2	12000	12-Dec-2005
3	Table Tennis	4	8000	14-Feb-2006
5	Chess	2	9000	01-Jan-2006

Table : Player

G Code	Name	Pcode
1	Nabi Admed	1
3	Ravi Sahai	2
4	Jatin	3

(i) Display names of all Game with their Gcodes.

- (ii) Display details of those games which are having prize money more than 7000.
- (iii) Display contents of Games table in ascending order of schedule Date.
- (iv) Display sum of Prizemoney for each of the number of participation grouping (Column Number)
- (v) List name of all games with Gcode in descending order.
- (vi) To display the content of the GAMES table whose schedule Date is earlier than 01/01/2006.
- (vii) To list Game Name, Prizemoney of all the games having number 2.
- (viii) List Number and Prizemoney game is chess.
- (ix) Display Gcode, Game Number and new number of all the games where new number= number +2
- (x) Display maximum Prizemoney for number 2 from table games.
- (xi) Display Game Name and Player Name of all the players.
- (xii) Increase the Prizemoney by 4000 where Number is more than 2.
- (xiii) Delete the games from games where number is more than 2
- (xiv) Display Number and Sum of Prizemoney in descending order of Number
- (xv) Add a new column Rating in player table.
- (xvi) Insert a new record in Games table.
- (xvii) Select count (distinct Number) from Games ;
- (xviii) Select Number, Sum (Pricemoney) from Games.
- (xix) Select sum (Prizemoney) from games where number >3;

NOTE: Make a separate **Practical File / Project File** for the following queries on **A4 size sheets**.

Either directly copy the commands from MYSQL or first copy them into notepad or word and then take printouts for the same. Pages must be filed in a transparent folder. **Format of First two pages of the files** must be same for all the students with only changed names and roll numbers of their own. Format of those pages are given at the end of this assignment.

- Make Project File with Acknowledgement, Certificate, Introduction, Coding & Output.
- Make Practical file with 15 C++ programs of following topic :
 1. Array of structure
 2. Array of Object
 3. Series
 4. Writing operation in Text file
 5. Display operation in Text file
 6. Adding operation in Binary file
 7. Searching operation in Binary file
 8. Update operation in Binary file
 9. Display operation in Binary file
 10. Array – Linear search
 11. Array - Binary search
 12. Array - Bubble sort
 13. Array - Merging
 14. 2D Array lower triangle
 15. 2 D array row sum
 16. At least 15 SQL Queries

SESSION 2019-20

PRACTICAL / PROJECT FILE OF COMPUTER SCIENCE

CLASS XII-B

UNDER THE SUPERVISION OF

Mrs. POONAM PAWAR

SUBMITTED BY

(name of the student)

(roll number of student)

St. ANGEL'S SCHOOL

SECTOR-15, A BLOCK

ROHINI DELHI-110085

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SUBJECT TEACHER _____

HOD _____

BUSINESS STUDIES

CH-1 NATURE AND SIGNIFICANCE OF MANAGEMENT

Q1 Coordination is

- a) Function of management
- b) The essence of management
- c) An objective of management
- d) None of these

Q2 Name the level of management which has the power to decide about opening of new branches of a business. Also explain any three functions performed by this level.

Q3 A company has achieved the target sales of 10,000 units but the advertisement expenditure has crossed the target limit. Is the performance of the company effective and efficient?

Q4 The task of management is to make people work towards achieving the organisational goals, by making their strengths effective and their weaknesses irrelevant. Which dimension of management is being referred here?

CH 2 PRINCIPLES OF MANAGEMENT

Q1 Which principle of management envisages that each group of activities having the same objectives must have one head and one plan? Explain the principle.

Q2 Mohan always comes 1 hour late in the office and leave half an hour before the scheduled time. No penal action is taken against him. Other employees also started coming late in the office. Management is very disturbed with this and has started scolding the employees.

(a) Which management principle is being violated in the given case?

(b) Explain the principle.

Q3 "Panchayats in our country have been given powers to decide and spend huge funds granted to them by the government for the welfare of villages." Identify the management principle highlighted in the given statement.

CH 3 BUSINESS ENVIRONMENT

Q1 "Google a search engine is continuously improved by its management by adding some innovative features to remain ahead of changes made by other competing search engines." Which importance of business environment is shown by this statement?

Q2 Identify the dimension of business environment related to following situations:

i) Preference of 3G phones instead of 2G phones.

ii) Demand to reserve jobs for minorities and women

iii) High inflation rates generally result in constraints on business enterprises as they increase the various costs of business such as the purchase of raw materials or machinery and payment of wages and salaries etc.

Activity:- Read newspaper and enlist any 5 latest business news. Then analyse the various dimensions of business environment that have been quoted in that news.

CH 4 PLANNING

Q1 Identify and explain the steps involved in planning process from the following:

- (1) Manager is required to make certain assumptions about the future.
- (2) This is the real point of decision making.
- (3) Under this step, managerial functions come into picture and involve organizing for labour and purchase of machinery.

Q2 Identify and explain the types of plans:

- (a) A company needs a detailed plan for its new project-Construction of shopping mall.
- (b) These are the simplest type of plans.
- (c) This plan prescribes the manner in which a task has to be performed.

Q3. A firm wants to increase its sales by 25% for the coming year. Which type of plan is it?

- a) Policy.
- b) Budget.
- c) Objective.
- d) Strategy.

CH 11 MARKETING MANAGEMENT

Q1 Tulip Pharmaceutical is a leading company engaged in manufacturing cough syrups. The company packs the syrup first in glass bottle and then in a cardboard box. As the syrups are demanded all over the world, 20 boxes of syrups are packed in corrugated boxes (thick boxes made of different layers of paper) and distributed to various hospitals.

(a) Identify the three levels of packaging highlighted, quoting lines from the above para.

(b) Explain the various functions of packaging.

Q2 Identify and explain the techniques of sales promotion highlighted in the following:

- (1) Up to 50% off on shirts and T-shirts.
- (2) Toothbrush free with a tooth paste.
- (3) Buy three packs of one liter juice and get 1 free.
- (4) Scratch the card and dial a number to win a car.

Q3. Which concept of marketing suggests that the organisation earn profit through volume of production?

- a) Sales concept.
- b) Production concept.
- c) Product concept.
- d) Marketing concept.

Do the given project work:-

Students are supposed to select **ANY ONE** unit out of four and are required to make only ONE project from the selected unit. (Consist of one project of 20 marks)

I. Project One: Principles of Management

The students are required to visit any one of the following:

1. A departmental store.
2. An Industrial unit.
3. A fast food outlet.
4. Any other organisation approved by the teacher.

They are required to observe the application of the general Principles of management advocated by Fayol.

Fayol's principles

1. Division of work.
2. Unity of command.
3. Unity of direction.
4. Scalar chain
5. Espirit De Corps
6. Remuneration of Employees.
7. Order.
8. Equity.
9. Discipline.
10. Subordination of individual interest to general interest.
11. Initiative.
12. Centralisation and decentralisation.
13. Stability of tenure.
14. Authority and Responsibility.

OR

They may enquire into the application of scientific management techniques by F.W. Taylor in the unit visited.

Scientific techniques of management.

1. Functional foremanship.
2. Standardisation and simplification of work.
3. Method study.
4. Motion Study.
5. Time Study.
6. Fatigue Study
7. Differential piece rate plan.

II. Project Two: Marketing

1. Bathing Soap
2. Bread
3. Butter
4. Camera
5. Car.
6. Chocolate
7. Coffee.
8. DTH
9. Eraser
10. Fruit candy
11. Jams
12. Jeans
13. Ladies bag
14. Ladies footwear
15. Lipstick
16. Mobile
17. Moisturizer
18. Nail polish
19. Pen
20. Sauces/ Ketchup
21. Shampoo
22. Shoes
23. Sunglasses
24. Tea
25. Toothpaste

Any more as suggested by the teacher.

Now the students are required to make a project on the identified product/service keeping in mind the following:

1. Why have they selected this product/service?
2. Find out '5' competitive brands that exist in the market.
3. What permission and licences would be required to make the product?
4. What are your competitors Unique Selling Proposition.[U.S.P.]?
5. Does your product have any range give details?
6. What is the name of your product?
7. Enlist its features.
8. Draw the 'Label' of your product.
9. Draw a logo for your product.
10. Draft a tag line.
11. What is the selling price of your competitor's product?

(i) Selling price to consumer

(ii) Selling price to retailer

(iii) Selling price to wholesaler

What is the profit margin in percentage to the

Manufacturer.

Wholesaler.

Retailer.

12. How will your product be packaged?

13. Which channel of distribution are you going to use? Give reasons for selection?

14. Decisions related to warehousing, state reasons.

15. What is going to be your selling price?

(i) To consumer

(ii) To retailer

(iii) To wholesaler

16. List 5 ways of promoting your product.

17. Any schemes for

(i) The wholesaler

(ii) The retailer

(iii) The consumer

18. What is going to be your 'U.S.P'?

19. What means of transport you will use and why?

20. Draft a social message for your label.

21. What cost effective techniques will you follow for your product.

22. What cost effective techniques will you follow for your promotion plan.

At this stage the students will realise the importance of the concept of marketing mix and the necessary decision regarding the four P's of marketing.

Product

Place

Price

Promotion

On the basis of the work done by the students the project report should include the following:

1. Type of product /service identified and the (consumer/industries) process involve there in.

2. Brand name and the product.

3. Range of the product.

4. Identification mark or logo.

5. Tagline.

6. Labeling and packaging.

7. Price of the product and basis of price fixation.

8. Selected channels of distribution and reasons thereof.

9. Decisions related to transportation and warehousing. State reasons.

10. Promotional techniques used and starting reasons for deciding the particular technique.

11. Grading and standardization.

III. Project Three: Elements of Business Environment

The teachers should help the students in selecting any one element of the following:

1. Changes witnessed over the last few years on mode of packaging and its economic impact. The teacher may guide the students to identify the following changes:

- a) The changes in transportation of fruits and vegetables such as cardboard crates being used in place of wooden crates, etc. Reasons for above changes.
- b) Milk being supplied in glass bottles, later in plastic bags and now in tetra-pack and through vending machines.
- c) Plastic furniture [doors and stools] gaining preference over wooden furniture.
- d) The origin of cardboard and the various stages of changes and growth.
- e) Brown paper bags packing to recycled paper bags to plastic bags and cloth bags.
- f) Re use of packaging [bottles, jars and tins] to attract customers for their products.
- g) The concept of pyramid packaging for milk.
- h) Cost being borne by the consumer/manufacturer.
- i) Packaging used as means of advertisements.

2. The reasons behind changes in the following:

Coca – Cola and Fanta in the seventies to Thums up and Campa Cola in the eighties to Pepsi and Coke in nineties.

The teacher may guide the students to the times when India sold Coca Cola and Fanta which were being manufactured in India by the foreign companies.

The students may be asked to enquire about

- a) Reasons of stopping the manufacturing of the above mentioned drinks in India THEN.
- b) The introduction of Thums up and Campa cola range.
- c) Re entry of Coke and introduction of Pepsi in the Indian market.
- d) Factors responsible for the change.
- e) Other linkages with the above.
- f) Leading brands and the company having the highest market share.
- g) Different local brands venturing in the Indian market.
- h) The rating of the above brands in the market.
- i) The survival and reasons of failure in competition with the international brands.
- j) Other observations made by the students

The teacher may develop the following on the above lines

3. Changing role of the women in the past 25 years relating to joint families, nuclear families, women as a bread earner of the family, changes in the requirement trend of mixers, washing machines, micro wave and standard of living.
4. The changes in the pattern of import and export of different Products.
5. The trend in the changing interest rates and their effect on savings.
6. A study on child labour laws, its implementation and consequences.
7. The state of ‘anti plastic campaign,’ the law, its effects and implementation.
8. The laws of mining /setting up of industries, rules and regulations, licences required for running that business.
9. Social factors affecting acceptance and rejection of an identified product. (Dish washer, Atta maker, etc)
10. What has the effect of change in environment on the types of goods and services?

The students can take examples like:

- a) Washing machines, micro waves, mixers and grinder.
- b) Need for crèche, day care centre for young and old.
- c) Ready to eat food, eating food outside, and tiffin centres.

11. Change in the man-machine ratio with technological advances resulting in change of cost structure.

12. Effect of changes in technological environment on the behaviour of employee.

IV. Project Four: Stock Exchange

The purpose of this project is to teach school students the values of investing and utilising the stock market. This project also teaches important lessons about the economy, mathematics and financial responsibility.

The basis of this project is to learn about the stock market while investing a specified amount of fake money in certain stocks. Students then study the results and buy and sell as they see fit.

This project will also guide the students and provide them with the supplies necessary to successfully monitor stock market trends and will teach students how to calculate profit and loss on stock.

The project work will enable the students to:

- understand the topics like sources of business finance and capital market
- understand the concepts used in stock exchange
- inculcate the habit of watching business channels, reading business journals/newspapers and seeking information from their elders.

The students are expected to:

- a) Develop a brief report on History of Stock Exchanges in India. (your country)
- b) Prepare a list of at least 25 companies listed on a Stock Exchange.
- c) To make an imaginary portfolio totalling a sum of Rs. 50,000 equally in any of the 5 companies of their choice listed above over a period of twenty working days.

The students may be required to report the prices of the stocks on daily basis and present it diagrammatically on the graph paper.

- They will understand the weekly holidays and the holidays under the Negotiable Instruments Act.

They will also come across with terms like closing prices, opening prices, etc.

- During this period of recording students are supposed to distinctively record the daily and starting and closing prices of the week other days under the negotiable instrument act so that they acquire knowledge about closing and opening prices.

- The students may conclude by identifying the causes in the fluctuations of prices. Normally it would be related to the front page news of the a business journal, for example,

- Change of seasons.
- Festivals.
- Spread of epidemic.
- Strikes and accidents
- Natural and human disasters.
- Political environment.
- Lack of faith in the government policies.
- Impact of changes in government policies for specific industry.
- International events.
- Contract and treaties at the international scene.
- Relations with the neighbouring countries.
- Crisis in developed countries, etc.

The students are expected to find the value of their investments and accordingly rearrange their portfolio. The project work should cover the following aspects;

1. Graphical presentation of the share prices of different companies on different dates.
2. Change in market value of shares due to change of seasons, festivals, natural and human disasters.
3. Change in market value of shares due to change in political environment/ policies of various countries/crisis in developed countries or any other reasons
4. Identify the top ten companies out of the 25 selected on the basis of their market value of shares.

Presentation and Submission of Project Report

At the end of the stipulated term, each student will prepare and submit his/her project report.

Following essentials are required to be fulfilled for its preparation and submission.

1. The total length of the project will be of 25 to 30 pages.
 2. The project should be handwritten.
 3. The project should be presented in a neat folder.
 4. The project report should be developed in the following sequence-
 - Cover page should include the title of the Project, student information, school and year.
 - List of contents.
 - Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped).
 - Introduction.
 - Topic with suitable heading.
 - Planning and activities done during the project, if any.
 - Observations and findings of the visit.
 - Conclusions (summarized suggestions or findings, future scope of study).
 - Photographs (if any).
 - Appendix
 - Teacher's observation.
 - Signatures of the teachers.
- At the completion of the evaluation of the project, it should be punched in the centre so that the report may not be reused but is available for reference only.
- The project will be returned after evaluation. The school may keep the best projects.

SUBJECT TEACHER _____

HOD _____

ACCOUNTANCY

Chapter I

Accounting for Not –for- profit organization

Q1) Is it possible for one hospital to have an income and expenditure account whereas another has a profit and loss account?

Q2) Why depreciation on fixed assets is not recorded in receipts and Payment Account?

Q3) One horse of a horse race club died. Insurance company has offered to settle the claim at 60% will it be recorded in the Accounts of the club and how?

Q4) Define Legacy. Explain its treatment while preparing financial statements of a “Not – for –profit Organisation”.

Q5) Show the following information in the Balance Sheet of the cosmos club as on 31st March 2007:

Particulars	Debits(Rs.)	Credit(Rs.)
Tournament Fund	-----	1,50,000
Tournament fund Investment	1,50,000	-----
Income from Tournament Fund Investment	-----	18,000
Tournament Expenses	12,000	-----

Additional Information:

Interest accrued on Tournament fund Investment Rs.6,000.

Q6) Following is the receipts and payments accounts of Purveni recreation club for the year ended 31st March 2007

RECEIPT AND PAYMENTS ACCOUNT

For the year ended 31st March 2007

Receipts	Amt(Rs)	Payments	Amt(Rs)
To cash in hand	8320	By rent of hall	3640
To subscription	26000	By salaries	5200
To entrance fee	3900	By sports Equipments	16,640
To sale of refreshment	9880	By Dance Expenses	4,940
To sale of dance ticket	5850	By supply of Refreshment	6,760
To interest on Investment @ 7%	4550	By Honorarium	1,040
		By sundry expenses	3,250
		By Electricity Charges	1,820
		By Cash in hand	15,210
	58,500		58,500

Following additional information are also provided to your:

- (i) The value of assets and liabilities on 31st March 2006 were as follows Sport equipment Rs 6760 ; subscription in arrears Rs 1950 ,furniture Rs 12,480, outstanding rent Rs 780 subscription received in advance Rs 520
- (ii) Entrance fee is to be Capitalized
- (iii) The value of assets and liabilities on 31st March 2007 were:
Sport equipment Rs 19,760 , subscription in arrears Rs 1,690, furniture Rs 11,180 , outstanding rent Rs 390 , subscription in advance Rs. 2340.

Chapter 2

ACCOUNTING FOR PARTNERSHIP FIRMS FUNDAMENTALS

- Q.1 X is a partner who used the stock of the firm worth Rs. 10,000 and suffered a loss ofRs. 2,000. He went the firm to bear the loss. How much 'x' is liable to pay to firm.
- Q2) A, B and C shared the profit of Rs. 9,00,000 in the ratio of 2:2:1 without providing for interest on B's loan, B granted a loan of Rs. 4,00,000 in the beginning of accounting year. Whereas the partnership deed is silent on the interest on loan and the profit sharing ratio. Give adjusting entry.
- Q3) The partners of a firm distributed the profits for the year ended 31st March 2006 Rs 3,00,000. Followind is the information:
- (i) Seema and Rita were entitled to a salary of Rs. 5,000 per annum.
 - (ii) Nega was entitled a Commission of Rs 5,000
 - (iii) Seema and Rita had guaranteed a minimum profit of Rs 1,20,000 per annum to Nega
 - (iv) Profit were to be shared in the ratio of 2:2:1.
- Prepare Profit and loss appropriation account.
- Q4) A,B and C were in partnership sharing profits and losses in the ratio 4:2:1. it being provided that in no year C's share be less than Rs.1,80,000.
The profit for the year ending 31st march 2016 amounted to Rs.10,50,000. You are required to show the appropriation of profits between the partners.

Chapter 3

GOODWILL

- Q1)A firm earns profit of Rs 1, 00,000. The normal rate of return in a similar type of business is 10%. The value of total assets (excluding goodwill) and total outsiders liabilities as on the date of valuation of goodwill are Rs 11, 00,000 and Rs 2, 80,000 respectively. Calculate the value of goodwill according to capitalization of super profits method.
- Q2)The profits of a firm for the last three years were:- 2001 – 5, 00,000 (including an abnormal gain of Rs 1, 50,000) 2002 – 4, 00,000 (after charging an abnormal loss of Rs 2, 00,000) 2003 – 6, 00,000 (excluding Rs 2, 00,000 payable on the insurance of P + m) Calculate the value of firms' goodwill on the bases of four years' purchases of the average profits of the last three years.
- Q3)On 1st April 2001 an existing firm had assets of Rs 75000 including cash of Rs 5000. The creditors amounted to Rs 5000 on that date. The firm had reserve fund of Rs 10,000 while partner's capital accounts showed a balance of Rs 60,000. If the normal rte of return is 20% and the goodwill of the firm is valued at Rs 24,000 at four years' purchase of super profits, find the average profits per year.

Chapter 4

CHANGE IN PROFIT SHARING RATIO

Q1) Mahesh, Naresh and Om were partners sharing profits in the ratio of 2:3:4 With effect from 1st April 2016 they agreed to share profits in the ratio of 1:2:3. Calculate each partner's gain or sacrifice due to change in ratio.

Q2) X,Y and Z were sharing profits and losses in the ratio of 5:3:2. They decided to share future profits and losses in the ratio of 2:3:5 with effect from 1.4.2017. they decided to record the effect of the following, without effecting their book values:

- A. Profit and Loss account Rs. 24000
- B. Advertisement suspense account Rs.12000

Pass the necessary journal entries.

Q3)A,B and C are partners in a firm sharing profits in the ratio of 3:2:1. Their balance sheet as at 31st march 2017 is as under:

Liabilities	Amount	Assets	Amount
Sundry Creditors	2,00,000	Premises	3,00,000
General Reserves	1,20,000	Machinery	1,80,000
Capitals:		Stock	1,20,000
A 3,00,000			
B 1,50,000			
C 1,00,000	5,50,000		
		Debtors	2,50,000
		Bank	20,000
	8,70,000		8,70,000

From 1st April 2017, the partners agreed to share future profits in the ratio of 4:3:3 and make the following adjustments:

- A. Premises will be appreciated by 10% and stock by Rs.10,000.
- B. A provision for doubtful debts is to be made on debtors @4%
- C. Sundry creditors be reduced by Rs.15,000.
- D. Machinery will be depreciated @5%.
- E. Goodwill of the firm is valued at Rs. 48,000.

Prepare Revaluation account, Partner's capital account and Balance sheet of the reconstituted firm.

PROJECT WORK

The Board has introduced Project Work in Accounting for Class-XII in the Optional Part B : 'Financial Statement Analysis'. It is expected that the Project Work will help the students in developing the skills to comprehend , analyse and interpret accounting data of the business firms and make it meaningful for taking business decisions.

Project Work

Duration: 1 Hour 30 Minutes

Marks: 20

- Unit-1** Project file - 4 Marks — As per requirement
- Unit-2** Written Test - 12 Marks — One hour
- Unit-3** Viva Voce - 4 Marks — As per requirement

Objectives

- To enable a student to complete the accounting process in real life business situations and apply the tools of analysis as per the syllabus for a comprehensive project.
- To develop the competence of reading accounting data from quarterly or half yearly or annual reports of business firms and interpreting the information on the basis of given guidelines to present the desirable information in required format in the Project File for Specific Projects.

Guidelines of project:-

During the academic session the students will work on at least three types of projects out of which one will be of Comprehensive nature & others two are of specific nature.

- The comprehensive project will involve the students from the initial stage of accounting to the preparation and analysis of financial statements. The data provided or the Project Statement will be as close to the real life situations as possible. The project statement should cover all important aspects like investments, financing, operating, adjustments to final accounts, etc. in a condensed form. The situations given in these problems will require a student to derive meaningful conclusion for taking decisions for the purposes of investment, expansion, financing, etc.
- Two projects will be of specific nature using atleast one tool of analysis in each. The data for these will be drawn mainly from quarterly or half yearly or annual reports of corporate sector. Students will analyze the information given in the financial statements as follows :

Performance of Segments keeping in mind their three parameters Revenue, Net Profit and Capital Employed of companies on quarterly or half yearly or annual basis. This is widely published and reported by the companies. It can be picked up either from the newspapers or from the websites of the companies & then show comparison of all these three parameters with the help of comparative & common- size statements.

Students can take areas of business activities like **Segment Reporting**, etc & they are also free to explore more such areas of business.

There are four tools of analysis given in the syllabus for the analysis of Financial Statements, namely (i) Comparative Statement, (ii) Common Size Statements, (iii) Ratios and (iv) Cash Flow Statement. Any one or more of these tools are to be used to derive conclusions. No project is to be prepared on the tools, but these tools are to be used to achieve the object of the project. For instance, there will not be any project on the 'Ratios' as such, but ratios will be used in the development of the project to reach a conclusion.

Scope

For the purpose of Project Work, the following ratios will be included :

Liquidity Ratios : Current Ratio, Liquidity Ratio.

Solvency Ratios : Debt to Equity; Total Assets to Debt, Proprietary Ratio.

Activity Ratios : Inventory Turnover, Debtors Turnover, Payables Turnover, Working Capital Turnover, Fixed Assets Turnover, Current Assets Turnover.

Profitability Ratio : Gross Profit Ratio, Operating Ratio, Net Profit Ratio, Return on Investment, Earning Per Share – Price Earnings Ratio.

The student is expected to analyze the facts, and present the information in a meaningful manner for interpretation.

PROJECT FILE

Students will prepare a **Project File** to record their work related to the problems attempted by them in the following format :

1. First page of the file should describe title of work, identity of student, school, and the teacher concerned.
2. Index to indicate columns for title of work, page no., date, teacher's remarks and signature.
3. The **format** for Project Work will be :
 - Statement of the problem / Name of the Project
 - Objectives
 - Period of Study
 - Source Material
 - Tools of Analysis used
 - Processing and Tabulation of data
 - Diagrammatic/graphic presentation- pie-diagram , bar diagram and graphs.
 - Derivations , Interpretation and Conclusion.
 - Assumptions (if any)

Project File should be neatly handwritten and presentable with page numbers. Each step of the solution needs to be highlighted. Conclusions drawn should be placed in boxes at the end.

SUBJECT TEACHER _____

HOD _____

ECONOMICS

Ch-1 INDIAN ECONOMY ON THE EVE OF INDEPENDENCE

1. WHAT IS COLONIAL ECONOMY?
2. WHAT DO YOU MEAN BY COLONIAL EXPLOITATION?
3. WHY AGRICULTURAL SECTOR IN INDIA WAS WAS BACKWARD DURING THE BRITISH RULE? SUGGEST SOME MEASURES TO IMPROVE IT. (VBS)
4. WRIE TWO CONSEQUENCES DUE TO THE DECLINE IF WORLD FAMOUS HANDICRAFT INDUSTRIES IN INDIA DURING BRITISH RULE? (HOTS)
5. DESCRIBE COLONIAL EXPLOITATIONOF INDIAN ECONOMY UNDER BRITISH RULE.
6. WHAT ARE THE MAIN FEATURES OF INDIAN FOREIGN TRADE DURING BRITISH PERIOD?
7. WHAT DO YOU MEAN BY THE DRAIN OF WEALTH? (HOTS)
8. DESCRIBE POSTIVE EFFECTS OF BRITISH RULE ON INDIAN ECONOMY. (HOTS)
9. DESCRIBE ECONOMIC CONSEQUENCES OF PARTITION OF INDIAN ECONOMY.
10. WHAT IS COMMERCIALISATION OF AGRICULTURE?

Ch-2 COMMON GOALS OF FIVE YEAR PLANS

1. IN WHICH YEAR WAS PLANNING COMMISSION ESTABLISHED AND WHO IS THE CHAIRPERSON OF IT? (HOTS)
2. WHAT IS MIXED ECONOMY?
3. WHAT ARE THE OBJECTIVES OF INDIAN PLANNING?
4. DIFFERENTIATE BETWEEN OBJECTIVES OF PLANS AND OBJECTIVES OF PLANNING.(HOTS)
5. EXPLAIN GROWTH WITH SOCIAL JUSTICE.
6. WHY DIDI INDIA OPT FOR PLANNING? (HOTS)
7. DEFINE ECONOMIC PLANNING.
8. WHAT ARE THE COMMON GOALS OF FIVE YEAR PLANS IN INDIA? HOW FAR THESE GOALS WERE ACHIEVEDTILL 1991? (HOTS)
9. WHAT ARE THE FOUR MAIN ACHIEVEMENTS OF PLANS IN INDIA?
10. WHAT ARE MAIN OBJECTIVES OF INDIAN ECONOMY?

PROJECT WORK

- Micro and Small Scale Industries
- Food Supply Channel in India
 - Contemporary Employment situation in India
- Disinvestment policy of the government
 - Goods and Services Tax Act and its Impact on GDP
 - Health Expenditure (of any state)
- Human Development Index
- Inclusive Growth Strategy
- Self-help group

- Trends in Credit availability in India
- Monetary policy committee and its functions
 - Role of RBI in Control of Credit
- Government Budget & its Components
- Trends in budgetary condition of India
 - Exchange Rate determination – Methods and Techniques
 - Currency War – reasons and repercussions
- Any other topic

SUBJECT TEACHER _____

HOD _____

INFORMATICS PRACTICES

- 1) Revise L-3 – 6
- 2) Do assignment of L- 3,4,5,6
- 3) Make **Project File** with Acknowledgement, Certificate, Introduction, Form, Coding & Output on the topic allotted in the class.
- 4) Make **Practical File** with 16 programs using Java Applications and 24 SQL queries based on one and/or two tables.

NOTE: Make a separate **Practical File / Project File** for the following queries on **A4 size sheets**.

Either directly copy the commands from MYSQL or first copy them into notepad or word and then take printouts for the same. Pages must be filed in a transparent folder. Format of First two pages of the file must be same for all the students with only changed names and roll numbers of their own.

Format of those pages are given at the end of this assignment.

Topics of Practical File

1. Make a form to add numbers.
2. Make a form to check whether a person is eligible to vote or not.
3. Make a form to accept day no. and print day of the week
4. Make a form to display numbers 1 to 10.
5. Make a form to display even numbers from 2 to 20.
6. Make a form to display odd numbers from 3 to 21.
7. Make a form of GRADE CALCULATOR
8. Make a form of SALARY GENERATOR
9. Make a form of GLAMOUR GARMENTS
10. Make a form of KIDDI LAND
11. Make a form of WAGE GENERATOR
12. Make a form of PLAY WITH SERIES
13. Make a form of INTEREST CALCULATOR
14. Make a form of ABN SHIPMENT CORPORATION
15. Make a form to add record in a database table. (Connection)
16. Make a form to search record in a database table. (Connection)
17. 24 SQL Queries

JAVA PROGRAMS

Q7. Shankar is a programmer at Edudel Enterprise. He created the following GUI in NetBeans.

The screenshot shows a Java Swing window titled "GRADE CALCULATOR". It contains three text input fields for "ENGLISH", "ANALYTICAL SKILLS", and "GENERAL KNOWLEDGE". Below these fields are three buttons: "GET TOTAL & GRADE" (which is highlighted with a yellow border), "CLEAR", and "EXIT". At the bottom of the window, there are two more text input fields labeled "TOTAL" and "GRADE".

Help him to write code in Java for the following:

(i) To calculate TOTAL MARKS and GRADE and display in TextField4 and TextField5 respectively on the click of Command button 'GET TOTAL & GRADE'.

Criteria for GRADE calculation is given below:

MARKS	GRADE
Above 80	A
Above 65 and ≤ 80	B
Above 50 and ≤ 65	C
≤ 50	D

(ii) To clear all the Text Fields on the click of command button "CLEAR"

(iii) To stop execution and exit from the application on the click of Command button "EXIT"

8. Shekhar is a programmer at EduCom Enterprises. He created the following GUI in NetBeans.

SALARY GENERATOR

BASIC

HOUSE RENT ALLOWANCE

DEARNESS ALLOWANCE

GET INCOME TAX AND SALARY **CLEAR** **EXIT**

INCOME TAX

SALARY

Help him to write code in Java for the following:

- (i) To calculate **INCOME TAX** and **SALARY** and display in **TextField4** and **TextField5** respectively on the click of Command button '**GET INCOME TAX AND SALARY**', as per the following condition:

If the **BASIC** is greater than 50000 then **INCOME TAX=BASIC*0.2**

And if it is less than or equal to 50000 then **INCOME TAX=BASIC *0.3**

Calculate **SALARY** as **SALARY= (BASIC+ HOUSE RENT ALLOWANCE + DEARNESS ALLOWANCE) - INCOME TAX)**

- (i) To clear all the text boxes on the click of command button "**CLEAR**"

- (ii) To stop execution and exit from the application on the click of Command button "**EXIT**"

Q9. Glamour Garments has developed a GUI application for their company as shown below:

The Help Bar displays context sensitive hints for your GUI design.

GLAMOUR GARMENTS

NAME

BILL AMOUNT

MODE OF PAYMENT CASH CHEQUE CREDIT CARD

DISCOUNT

NET AMOUNT

The company accepts PAYMENTS in 3 MODES- CHEQUE, CASH AND CREDIT CARDS. The DISCOUNT given as per MODE OF PAYMENTS is as follows:

MODE OF PAYMENT	DISCOUNT
CASH	30%
CHEQUE	20%
CREDIT CARD	10%

Write the Java code for the following :

- To calculate DISCOUNT AND NET AMOUNT and display in TextField3 and jTextField4 respectively on the click of Command button 'CALCULATE'.
- To clear all the text boxes on the click of command button "CLEAR"
- To stop execution and exit from the application on the click of Command button "EXIT"

Q10. Mr. Vikas, the owner of the Kiddi Land Enterprises has developed the following GUI in Netbeans :

KIDDI LAND

NAME

BILL AMOUNT

MODE OF PAYMENT PLATINUM SILVER GOLD

CALCULATE **CLEAR** **EXIT**

DISCOUNT

NET AMOUNT

The DISCOUNT is given according to the following MODE OF PAYMENT:

<u>MODE OF PAYMENT</u>	<u>OFFER</u>
PLATINUM	30%
GOLD	20%
SILVER	10%

Write the Java code for the following :

- To calculate DISCOUNT AND NET AMOUNT and display in TextField3 and jTextField4 respectively on the click of Command button 'CALCULATE'.
- To clear all the text boxes on the click of command button "CLEAR"
- To stop execution and exit from the application on the click of Command button "EXIT"

Q11. Mr. Vikas is a programmer at Alpha Builders. To calculate wages to be paid to labourers, he has developed the following GUI in Netbeans.

MALE and FEMALE labourers are respectively paid at the rate of Rs. 140/- per day and Rs. 160/- per day. Write the Java code for the following :

- To calculate RATE AND TOTAL WAGES and display in TextField3 and JTextField4 respectively on the click of Command button 'CALCULATE WAGES'.
- To clear all the Text Fields on the click of command button "CLEAR"
- To stop execution and exit from the application on the click of Command button "EXIT"

Q12. Srikant is a programmer at Educo Enterprises. He created the following GUI in NetBeans.

Help him to write code in Java for the following:

- To display series of odd or even numbers (depending on starting number- JTextField1 is even or odd) in JTextArea on the click of Command button 'Display the Series'.
- To clear both the Text Fields and textAreas on the click of Command Button "Reset"
- To stop execution and exit from the application on the click of Command button "Exit"

Q13. Mr. Rouble is a programmer at Edudel Enterprise. He created the following GUI in NetBeans.

INTEREST CALCULATOR

PRINCIPAL

RATE

TIME 5 YEARS 10 YEARS 15 YEARS

INTEREST

AMOUNT

Help him to write code in Java for the following:

- To calculate SIMPLE INTEREST AND AMOUNT and display in TextField3 and JTextField4 respectively on the click of Command button 'CALCULATE'.
- To clear all the text boxes on the click of command button "CLEAR"
- To stop execution and exit from the application on the click of Command button "EXIT"

Q14. Mr. Sharma is a programmer. He created the following GUI in NetBeans. Write code in Java for :

ABN SHIPMENT CORPORATION

NAME

PRICE

CUSTOMER TYPE WHOLESALER RETAILER

DISCOUNT

TOTAL COST

- To calculate DISCOUNT and display in TextField3 on the click of Command button 'CALCULATE'.
If CUSTOMER TYPE is WHOLESALER then DISCOUNT is 20 else DISCOUNT is 10.
- To clear all the text boxes on the click of command button "CLEAR"
- To stop execution and exit from the application on the click of Command button "EXIT"

INFORMATICS PRACTICES ASSIGNMENT

Chapter 3-GUI PROGRAMMING – A REVIEW

1. While working in Netbeans, Ms Kanta Surbhi wants to display 'Cleared' or 'Re-attempt required' message depending the marks entered in jTextField. Help her to choose more appropriate statement out of 'If statement' and 'Switch statement'.

1. Write a statement to make jTextField1 as un-editable. What will be the value of A and B after execution of the following code: int A = 100, B ;

```
for (B=10; B<=12; B++)
```

```
{  
A+=B;  
}
```

```
JOptionPane.showMessageDialog(this, "A:" + A + "B:" + B + "");
```

4. Write Java code that takes the price of a pencil from jTextField1 and quantity of pencils from jTextField2 and calculates total amount as price * quantity to be displayed in jTextField3 and also find 10% tax amount to be displayed in jTextField4

5. What will be displayed in jTextField1 after executing the following code. int N = 20;

```
N = N + 1 ;
```

```
If (N<21)
```

```
jTextField1.setText(Integer.toString(N+10));
```

```
else
```

```
jTextField1.setText(Integer.toString(N+15));
```

6. Rewrite the following program code using a Switch statement.

```
if (code ==1)
```

```
Day = "Monday" ;
```

```
else if (code == 2)
```

```
Day = "Tuesday" ;
```

```
else if ( code ==3)
```

```
Day = "Wednesday" ;
```

```
else if ( code == 4)
```

```
Day = "Thursday" ,
```

```
else
```

```
Day = "No Match" ;
```

7. What will be displayed In jTextField1 after executing the following statement:

```
jTextArea1.setText("Live\nIn Peace\t and harmony") ;
```

8. The following code has some error(s). Rewrite the correct code underlining

all the corrections made: Int P=3; sum = 0; //Declaring P and sum as Integer {

```
Sum = P;
```

```
P += 3;
```

```
}
```

```
while (P=<12)
```

```
jTextField1 (Integer.toString(sum)) ;
```

Chapter 4-BASICS OF OBJECT ORIENTED PROGRAMMING

- Q1. Explain Polymorphism with example.
Q2. What do you mean by function overloading? Explain with the help of an example.
Q3. Explain abstract classes with example
Q4. Study the following code and answer the questions that follow:

```
public class Employee extends javax.swing.JFrame
{
    public Employee()
    {
        initComponents();
    }
}
```

- (i) Which feature of object oriented programming is depicted above? Explain it.
(ii) Name the base class and derived class.
(iii) Name the keyword used for passing on characteristics of the base class to derived class

Chapter 5-ADVANCED PROGRAMMING CONCEPTS

Q1. Write the value of ans after executing following code :
String ans="PROGRAM", ans1=" concepts";
ans=ans.concat(ans1);

Q2 Write the value of L after executing following code :
String a="p R O G R a M", b;
b=a.trim();
int L=b.length();

Q3 Study the following code and answer the questions that follow:
double n,r;
n=Double.parseDouble(jTextField1.getText());
r=Math.round(n*5000)/500.0;
jTextField2.setText(Double.toString(r));

- (i) How many variables have been declared in the above code? Identify and name them.
(ii) How many objects have been declared in the above code?
(iii) Name any one native class of Java used in the above code.
(iv) Identify and name a method of this native class
Q4 Explain toString() with example.

Chapter 6 DATABASE CONNECTIVITY

- Q1. Explain next(), removeRow(), forName(), getModel(), JDBC.
Q3. Name 3 classes required to import for setting up the connection with the database and retrieve data from it.
Q4 What is JDBC? What is the importance of JDBC in establishing database connectivity?

Q5 Study the following code and answer the questions that follow:

```
String query ="SELECT NAME, DESIG FROM EMPLOYEE";
ResultSet rs = stmt.executeQuery(query); // Statement 1
if (rs. next()) // Statement 2
{
    String Name =rs.getString("Name");
    String Desig =rs.getString("Desig");
    jTextField2.setText(Name);
    jTextField3.setText(Desig);
}
```

- (i) Name the table from where the data is being retrieved.

- (ii) How many objects of the native String class have been declared in the code?
 - (iii) Identify the object name, class name and method name used in the statement labeled as Statement 1.
 - (iv) Explain the function of the statement labeled as Statement 2.
- Q6. Which statement is used to instantiate a statement object using connection object.
- Q7. Which method is used when we simply want to retrieve data from a table modifying the contents of the table.

Chapter 8 MYSQL- REVISION TOUR

- Q1. Explain the following with example:
- a. Relation
 - b. Primary Key
 - c. Candidate key
 - d. Foreign key
 - e. Alternate key
 - f. Degree
 - g. Cardinality
- Q3. What are the different data types available in SQL?
- Q4. What do you understand by term constraints? What are the different types of constraints available in SQL? Explain each.
- Q5. What is the difference between drop and delete command?
- Q6. Differentiate between DDL and DML commands.
- Q7. Difference between CHAR and VARCHAR data type
- Q8. What will be the output of the following:
- a. SELECT 8 mod 2;
 - b. SELECT concat('hello', 'class', 'XII', 'A');
 - c. SELECT(TRIM ' example of trim command');
 - d. SELECT ROUND(29.21), ROUND(23.78);
 - e. SELECT TRUNCATE(5.3456,1);
 - f. SELECT DAYOFMONTH('2008-09-25');
 - g. SELECT MID('CLASS 12',2 ,3);
- Q11. Consider the following table GAMES . Write SQL commands for the statements (i) to (x) and give outputs for SQL query (xi).

Table: GAMES

G Code	G Name	Number	Prizemoney	Schdate
1	Caram Board	2	5000	23-Jan-2006
3	Badminton	4	12000	12-Dec-2005
4	Table Tennis	2	9000	14-Feb-2006
5	Chess	4	25000	19-March-2006

- (i) Create above table.
- (ii) Display details of those games which are having prize money more than 7000.
- (iii) Display contents of Games table in ascending order of schedule Date.
- (iv) Display Gcode, Game Number and new number of all the games where new number= number +2
- (v) Display Prizemoney from table games BETWEEN 4000 AND 10000.
- (vi) Increase the Prizemoney by 4000 where Number is more than 2.
- (vii) Delete the games from games where number is more than 2
- (viii) Display Number and Sum of Prizemoney in descending order of Number
- (ix) Add a new column Rating in player table.
- (x) Insert a new record in Games table.
- (xi) Select count (distinct Number) from Games ;

SESSION 2019-20

PRACTICAL / PROJECT FILE

OF

INJORMATICS PRACTICES

CLASS XII-D

UNDER THE SUPERVISION OF

Mrs. POONAM PAWAR

SUBMITTED BY

(name of the student)

(roll number of student)

St. ANGEL'S SCHOOL

SECTOR-15, A BLOCK

ROHINI DELHI-110085

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SUBJECT TEACHER _____

HOD _____

PSYCHOLOGY

Note: Project file can be a spiral folder with one sided line sheets.

1. CASE STUDY FILE:

The student may prepare a case profile of an individual who has excelled in areas like sports, academic, music, etc. Or having special needs like learning disability, autism, Down 's syndrome, etc. Or those with interpersonal social problems, i.e. poor body image, obesity, temper tantrums, substance abuse, not getting along with peers, withdrawn etc.

FILE WORK

- Case Study File (Heading & Mention Your School Name, Your Name, Teacher Name, You can Put the Logo of school.)
- Index
- Explain case Study method ; Advantages and Disadvantages of this method (3-4 sides)
- A brief introduction of about one or two pages presenting the nature of the problem, its incidence, likely causes and possible counselling outcomes.

Tools used for collecting data:

1. Observation Method (Explain)
2. Interview Method (Explain)

P.S.: REFER TO CLASS 11TH NCERT BOOK

Rapport Formation:

A friendly conversation was carried out to make the subject feel at ease. I assured the subject that result would be kept confidential. All of his/her queries related to the study were clarified.

Identification of Data:

- Name: (May be fictitious)
- Diagnosed problem:
- Voluntary or Referral (i.e. by whom referred- such as teacher, parent, sibling, etc.)

Case History

- A paragraph giving age, gender, school attended, Class (grade) presently enrolled in, etc.
- Information about socio-economic status (SES) consisting of information about mother's/ Father's education and occupation, family income, house type, number of member in the family- brothers, sisters and their birth order, adjustment in the family, etc.
- Information about physical health, physical characteristics (e.g. Height & weight) any disability/ illness (in the past and present), etc.

- Any professional help taken (past and present), giving a brief history of the problem, attitude towards counselling (indicating the motivation to seek help, etc.)
- Recording signs (i.e. what is observed in terms of facial expressions, mannerism, etc) and symptoms (i.e. what the subject reports, for example, fear, worry, tension, sleeplessness, etc.)

Concluding Comments

Note: It should be done in register.

2. Define the concepts:

•	Collective unconscious	Chapter 2 Self and Personality.
•	Rationalization, Regression, projection as a defence Mechanism with suitable examples.	
•	Differentiate between conscious/ unconscious/ preconscious mind.	
•	Write a note on DBDA Test (David Differential Aptitude Test)	Chapter 1 Variations in Psychological Attributes.
•	Write a note on Raven's Progressive matrices	

Chapter 3 Meeting Life Challenges

3. We know that certain lifestyle factors can cause stress and may lead to diseases like cancer and coronary heart disease, yet we are unable to change our behaviour explain why?
4. Describe how life skills can help meet life's challenges.
5. Describe the symptoms and source of stress.

Chapter 4 Psychological Disorders

6. Anxiety has been called the "butterflies in stomach feeling". At what stage does anxiety become a disorder? Discuss its types.
7. Describe the characteristics of hyperactive children.

SUBJECT TEACHER _____

HOD _____

PHYSICAL EDUCATION

CH-1 Planning in Sports

- Q1. Runs for a cause are organized for different reasons. What are the gains of organizing such runs?
- Q2. Through match practices, extramural sports help players to develop skills, fitness and psychological benefit/preparedness for competition. Elaborate.
- Q3. Extramural sports serve the purpose of solving some developmental and psychology related problems of children. Explain.

CH-2 Sports and Nutrition

- Q1. What do you mean by micro nutrients? Name the nutrients with their scientific name, uses, sources and deficiency disease.
- Q2. Eating Disorders are partly physiological and partly psychological. Explain
- Q3. Improper selection of foodstuffs in the diet of an individual can lead too many physiological, sociological and psychological Problems. Make a list of such problems.

SUBJECT TEACHER _____

HOD _____