COMMERCE DEPARTMENT

https://youtu.be/M8f9hyit2t8- ACCOUNTANCY

https://www.youtube.com/watch?v=TF-nx3317zQ ,
https://www.youtube.com/watch?v=A64j5o-6ix4 ,
https://www.youtube.com/watch?v=C7xdXnIpsOY - BUSINESS STUDIES

https://youtu.be/IdlcbXDNc3M - FMM

https://www.youtube.com/watch?v=vKQ5455vbDU - ECONOMICS

SCIENCE DEPARTMENT

https://www.youtube.com/watch?v=qA26KrrbFIw&list=PLnbM1OFbpm85I-VZpJjGmsQrwmbGSMw28 ,
https://www.youtube.com/watch?v=qqxe-BqFqIg&list=PLnbM1OFbpm85I-VZpJjGmsQrwmbGSMw28&index=2 ,
https://www.youtube.com/watch?v=8MCza8oWhu4&list=PLnbM1OFbpm86ITwqJk-3WVnfEglvy5a8X&index=3 - BIOLOGY

https://youtu.be/5QYVCa8o1YY – CHEMISTRY

https://youtu.be/mpMW6xcmKvM - PHYSICS

HUMANITIES DEPARTMENT

https://youtu.be/_uiA_skTTHI - LEGAL STUDIES

https://youtu.be/qIPVCPstujI - POLITICAL SCIENCE

https://youtu.be/9XT49etweek - PSYCHOLOGY

https://youtu.be/0lyQ31Apswc - GEOGRAPHY

https://www.youtube.com/watch?v=kOb9OCQR3t4 – HISTORY

https://youtu.be/ZnYJqnsGguc - HINDI

https://youtu.be/INwsoEPyjcM - ENGLISH

https://youtu.be/SBEtO6q0wu8 - MATHEMATICS

https://youtu.be/iT8KX2TOpZw , https://www.youtube.com/watch?v=a27kfC_J4J8- PAINTING

https://www.youtube.com/watch?v=tuy_G4GJsf4 ,
https://www.youtube.com/watch?v=hkBVaVOdWLw ,
https://www.youtube.com/watch?v=cIJl3yIp210 - IP

EAST POINT SCHOOL

ENGLISH

ASSIGNMENT FOR ENGLISH CORE (LOST SPRING)

Identify the literary device in the following. Define that literary device and comment on the phrase given:

1. Saheb-e-Alam which means the lord of the universe is directly in contrast to what Saheb is in reality.
2. Drowned in the air of desolation.
3. Seemapuri, a place of the periphery of Delhi yet miles away from it, metaphorically.
4. For the children it is wrapped in wonder; for elders it is a means of survival.
5. As her hands move mechanically like the tongs of a machine. I wonder if she knows the sanctity of the bangles she helps make.
6. She still has the bangles on her wrist, but not light in her eyes.
7. Few airplanes fly over Firozabad.
8. Web of poverty.
9. Scrounging for gold.
10. And survival in Seemapuri means rag-picking. Through the years, it has acquired the proportions of a fine art.
11. The steel canister seems heavier than the plastic bag he would carry so lightly over his shoulders.

ACCOUNTANCY

TOPIC: FUNDAMENTALS OF PARTNERSHIP

1. Interest on partner's loan shall be paid even if there are losses in the business. True or false? Give reason.
2. The extension of Profit and Loss Account is _____.
3. Interest on Partner's loan is debited to ¬¬_____ and credited to _____.
4. Divisible profit is transferred to Partner's Current accounts when capitals are _____.
5. Which of the following is appropriation of profit
   (a) Rent paid to partner (c) Salary paid to partner
   (b) Interest on partner's loan (d) Interest on partner's loan
6. What is journal entry for transfer of loss to Profit and loss Appropriation A/c?
7. Interest on drawings is a loss to the firm. True of False? Give reason.
8. Profit and Loss Appropriation account is _____ in nature.
9. A charge means distribution of profit among partners. True or False? Give reason.
10. Why is manager's commission deducted from Net profit in the Profit and Loss Appropriation A/c?

BUSINESS STUDIES

Q1. Raj and Simran are both qualified eye surgeons and good friends. After

obtaining a certificate of practice, they decide to persue a career of their own choice. Raj starts an eye care centre in the city whereas Simran joins a government hospital in a small village. They meet after a long time in a party. Raj invites Simran to visit his eye care centre and she accepts his invitation. She observes at his clinic that there is a fixed place for everything and everyone and it is present there so that there is no hinderance in the activities pf the clinic. Also, Raj always tends to replace 'I' with 'We' in all his conversations with the staff members. Later on Raj shares with her that he always deals with lazy staff sternly to send the message that everyone is equal in his eyes.

In context of the above case:

Identify and explain the various principles of management that Raj is applying for the successful management of his eye care centre.

Q2. Hina and Harish are typists in a company having same educational qualifications. Hina is getting ₹3,000 per month and Harish ₹4,000 per month as salary for the same working hours. Which principle of management is violated in this case? Name and explain the principle

Q3. After finishing her BBA degree course, Tanya gets a job of Assistant Manager in a retail company through the reference of her cousin Taruna who works in the same company as a Senior Manager. Taruna decides to guide Tanya through her experience by making her aware of the important facts about management in practice. She tells her that neither the principles of management provide any readymade, straitjacket solutions to all managerial problems nor they are not rigid prescriptions, which have to be followed absolutely. **In context of the above case :**

a) Identify the two features of principles of management mentioned in the above paragraph by quoting lines from the paragraph.

b) Why do the principles of management not provide readymade, straitjacket solutions to all managerial problems?

Q4. Davinder is a class twelfth commerce student in a reputed school in Punjab. Satinder is his elder brother who is doing his Masters in Hospital Administration from Delhi after completing his B.Sc course. During vacations when Satinder comes home, Davinder shows him the business studies project that he is preparing on the topic 'Principles of Management'. Satinder tells him that these principles are also a part of MBA course curriculum at the beginner's level as they form the core of management in practice. But he finds these principles different from those of pure science. In context of the above case:

a) Outline the concept of principles of management.

b) Why does Satinder find the principles of management different from those of pure science?

c) Why do the principles of management form the core of management in practice? Explain by giving any two points highlighting the importance of principles of management.

Q5. Gurpreet is running a retail mart in Varanasi to provide various types of

products of daily use under one roof to the buyers. The employee turnover in his business is very high and he is perpetually on a look out for new staff. The fact of the matter is that he lacks managerial skills and assigns work to his employees on adhoc basis without letting them settle down in a specific work. This approach of his creates a sense of insecurity among the employees and they tend to leave the job very quickly. However, he is a very god fearing person and offers fair wages to his employees so they can afford a reasonable standard of living. **In context of the above case:**
a) Identify and explain the principle of management which Gurpreet is unable to apply and is perpetually on a look out for new staff.
b) "He is a very god fearing person and offers fair wages to his employees so they can afford a reasonable standard of living." Name and explain the relevant principle of management will has been brought into effect by Gurpreet.

Q6. Swaraj is running an office furniture showroom. Most of his clients are businessmen and they prefer to buy goods on credit. Keeping this in mind, he has given the power to the sales manager, Mr. Bhardwaj, to offer a credit period of only 20 days, while negotiating a deal with a buyer. On a specific day, Mr. Bhardwaj finds that if he can offer a credit period of 30 days as an exception to a prospective buyer, he is likely to finalise a highly profitable deal for the business. So Mr. Bhardwaj requests Swaraj to grant him additional authority for offering a credit period of 30 days in the interest of the business. But Swaraj refuses to extend his authority and as a result, the deal is not finalized. **In context of the above case:**
a) Can Mr. Bhardwaj be held responsible for loss of the deal? Why or why not ? Give a suitable reason in support of your answer.
b) Also, explain the related principle.

Q7. Nikita and Salman completed their MBA and started working in a multinational company at the same level. Both of them worked hard and were happy with their employer. Salman had the habit of back-biting and wrong reporting about his colleagues to impress his boss. All the employees in the organisation knew about it. At the time of performance appraisal, the performance of Nikita was judged to be better than Salman. Even then their boss, Mohammed Sharif, decided to promote Salman stating that being a female, Nikita would not be able to handle the complications of a higher post.
a) Identify and explain the principle of management which was not followed by this, multinational company.
b) Identify the values which are being ignored quoting the lines from the above paragraph.

Q8. 'Study Buddy Pvt. Ltd.' is company dealing in stationery items. In order to establish standards of excellence and quality in materials and in the performance of men and machines, the company adheres to benchmarks during production. Moreover, its products are available in limited varieties, sizes and dimensions thereby eliminating superfluous diversity of products. Identify the technique of

scientific management which has been adopted by 'Study Buddy Pvt. Ltd.'

Q9. Anshul owns a small scale factory where utility items are prepared from waste material like papermache items, paper and cloth bags, decorative material etc. Over the past few weeks, he was observing that the productivity of one of his very efficient worker, Ramdas, is going down. So he decides to probe into the matter and confronts Ramdas one day. On being asked, Ramdas shares with Anshul that he has deliberately slowed down in his work as many of the less efficient workers often pull his leg saying that there is no need for him to be more efficient when everybody is being paid at the same rate. Taking a lesson from this insight, Anshul decides to implement an incentive bonus plan so as differentiate between efficient and inefficient workers.

In context of the above case:

a) Name and explain the incentive bonus plan that Anshul may implement so as differentiate between efficient and inefficient workers.

b) State any two values that Anshul wants to communicate to the society by setting up a special type of business.

ECONOMICS

Q1 Who regulates the Money Supply in India
- (a) Commercial banks
- (b) Government of India
- (c) Central bank
- (d) Both a and c

Q2 _____ is the main source of Money Supply in the economy
- (a) Central bank
- (b) Commercial bank
- (c) Planning Commission
- (d) None of the above

Q3 Is Money supply a Flow concept. True/False

Q4 M1 includes net demand deposits and not gross demand deposits. True/False

Q5 Define Money ?

Q6 What is meant by Money Supply ?

Q7 State the components of Money supply ?

Q8 What is High Powered Money ?

Q9 Define Bank money

Q10 What are the limitations of Barter System ?

Q11 Write any 2 Functions of Money ?

Q12 Why does the problem of Double Coincidence of wants arise in the economy ?

Q13 What do you Understand by the term Legal Tender ?

Q14 How is transaction demand for money related to the value of transactions over a specified period of time ?

Q15 Explain the concept of Currency and coins with public and Demand Deposits held by commercial banks

Q16 Explain the difficulty of storing wealth problem faced by people in Barter system .

FINANCIAL MARKET MANAGEMENT

Multiple choice questions

Q.1 Which feature allows the trading member to get instantaneous market information or any other desired security?

a) Inquiry window
b) Message window
c) Snap Quote
d) Market information displayed

Q.2 Exchange gives the default password _____ for trading members who logs in for the first time.

a) 12345
b) NEATTM
c) LOGIN
d) NEATCM

Q.3 Which screen appears with the following details User ID, Trading member ID, password, New password?

a) ODIN
b) NEAT
c) BOLT
d) All of the above

Q.4 Which is the third window from the top of the NEAT screen?

a) Market by price
b) Activity log
c) Market watch
d) Previous trade

Q.5 The purpose of which window is to provide security-wise information to users for own trades?

a) Activity trade
b) Previous trade
c) Market enquiry
d) None of the above

Q.6 Which screen shows all the activities performed on any order?

a) Activity log
b) Auction enquiry
c) Basket trading
d) Order status

Q.7 What doew “S” stand for the status in the auction enquiry screen?

a) Auction is over
b) System is matching the orders
c) Auction is in Solicitor period
d) None of the above

Q.8 What is the full form of “XB”?

a) Ex- Bonds
b) Ex-cum bonus
c) Ex-bondages
d) Ex-bonus

Q.9 What does P stand for the status in the auction enquiry screen?

a) Performing scripts
b) Pending scripts
c) Pending scripts for auction
d) Auction is pending and yet to begin

Q.10 What does S indicate as a status of security in Market by price screen?

a) Suppressed security
b) Suspended security
c) Special security
d) None of the above

Very Short Answer Type Questions

Q.1 What is multiple Index Broadcast & graph screen?
Q.2 How online backup can be invoked by using a shortcut key?
Q.3 What is the purpose of Auction Inquiry screen?
Q.4 What are the two special feature of the market movement screen?
Q.5 What do you understand by outstanding orders?

Short Answer Type Questions

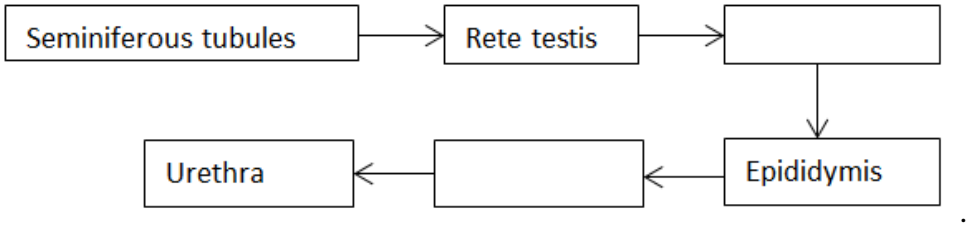
Q.1 How a trader can check the status of various orders entered by him?
Q.2 What is the importance of the market movement screen?
Q.3 What is the special feature of market enquiry screen in regard to corporate actions?
Q.4 What are buy beck trades?
Q.5 Write a short note on Trading Member Trading ID.

BIOLOGY

Human reproductive system

Cancer, AIDS

1. Differentiate between benign and malignant tumours.
2. What is proto-oncogene? What is its significance?
3. What is the treatment given in AIDS?
4. What are the diagnostic and treatment methods of cancer?
5. Fill in the missing boxes exhibiting the route of sperm transport.



6. List the names of the hormones, endocrine glands along with functions of the hormones that are crucial in causing spermatogenesis.
7. Seminal plasma, the fluid part of semen, is contributed by.

i. Seminal vesicle
ii. Prostate
iii. Urethra
iv. Bulbourethral gland

(a) i and ii
(b) i, ii and iv
(c) ii, iii and iv
(d) i and iv

8. Urethral meatus refers to the:

a. Urinogenital duct
b. Opening of vas deferens into urethra
c. External opening of the urinogenital duct
d. Muscles surrounding the urinogenial duct

9. Name the different parts of human male reproductive system, through a flow chart and draw a well labelled diagram. 5
10. What is seminal plasma and what is the importance of seminal plasma? 2
11. Differentiate between: (2)

a. Spermiation and spermiogenesis
b. Vasa efferentia and vasa differentia

12. Draw well labelled diagrams of:
a. section of testis b. Human sperm c. female reproductive system
13. Where does fertilisation takes place in females? What is the birth canal? 2
14. Make a flowchart of spermatogenesis. 3

CHEMISTRY

CLASS XII **CHEMISTRY –ETHERS** **ASSIGNMENT NO.7**

Q1. Give reasons for the following:-

(a) The c-o-c bond angle in ethers is larger than the tetrahedral value.

(b) Ethers are miscible in water just as alcohol's are

(c) Boiling pts. Of ethers are comparable to those of ethers of comparable molecular mass.

(d) Ethers have a net dipole moment even if they are symmetrical in structure.

(e) For the preparation of t-butyl methyl ethers, methyl bromide and sodium t-butoxide is used. Reaction of sodium methoxide and t-butyl bromide can't be used.

(f) Acid catalysed formation of ethers from alcohols is not appropriate for preparation of unsymmetrical ethers.

(g) Anisole is prepared by reacting sodium phenoxide with methyl bromide and not bromobenzene and sodium methoxide.

(h) When alkyl aryl ethers are cleaved with halogen acid, the yield is phenol and a molecule of alkyl halide and not phenyl halide and alcohol.

(i) When ethers with 1^0 and 2^0 alkyl groups are cleaved with excess of HI under drastic conditions, alkyl iodide is formed with lower alkyl group.

(j) When tert-butyl methyl ether is hydrolysed with HI under drastic conditions, the products are methanol and t-butyl iodide and not butyl alcohol and methyl iodide.

(k) Anisole undergoes bromination in absence of halogen carrier also.

(l) Reactivity of HX towards ethers follows the Order $\rightarrow$ HI > HBr > HCl

(k) Ethers are chemically inert.

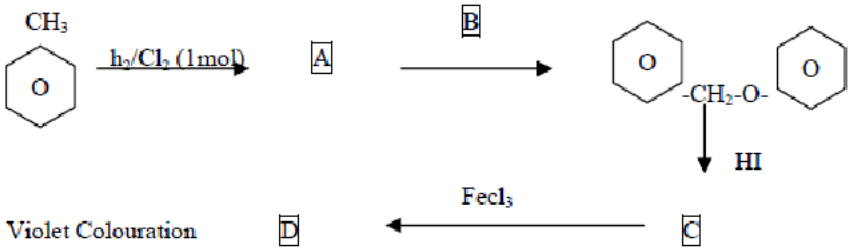
(l) Preparation of ethers by acid dehydration of 2^0 and 3^0 alcohols is not a suitable method.

(m) Di-isopropyl ether and di-tert butyl ether cannot prepared in good yield by Williamson's synthesis

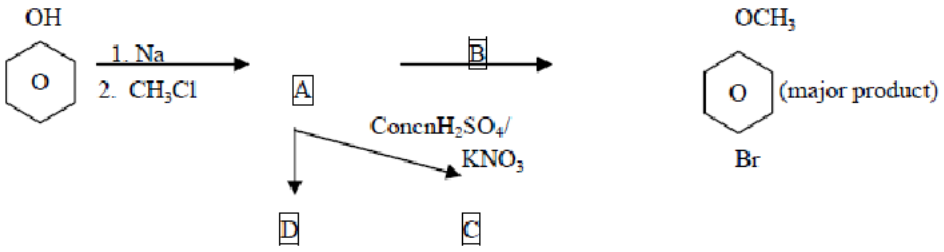
(n) Ethers can only be cleaved by acid not bases. :-

Q. **Identify A, B, C, D**

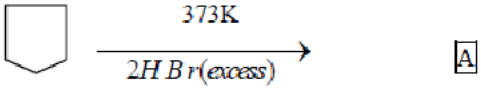
(a)



(b)



(c)



PHYSICS

CH -1 TWO MARKS QUESTIONS SOLUTION

ENGLISH

1 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) $\frac{F}{3}$? 2

ANS: For a given pair of point charges in a medium $F \propto 1/d^2$

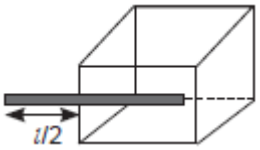
(i) For the force to become $3F$, the separation d must become $d/\sqrt{3}$.

(ii) For the force to become $F/3$, the separation d must become $\sqrt{3}d$.

2 A positively charged rod having uniform linear charge density λ C/m all over it, is placed in a hypothetical cube of edge l with the centre of the cube at one end of the rod. Find the minimum possible flux of the electric field through the entire surface of the cube. 2

ANS: Length of rod = l, charge on half rod = $\frac{\lambda l}{2}$ coulomb

$$\therefore \phi_{\min} = \frac{q_{\text{enclosed}}}{\varepsilon_0} = \frac{\lambda l}{2\varepsilon_0}$$



3 An electron and a proton are released in the uniform electric field. Will they experience same force and have same acceleration? 2

ANS: As we know $|q_p| = |q_e| = e = 1.6 \times 10^{-19}$ C and $m_p >> m_e$
The magnitude of force experience by each is same as F = eE for both, but their directions will be opposite and they will not have same acceleration as $a = \frac{eE}{m}$, i.e. $a_p << a_e$. Therefore, the electron will accelerate more.

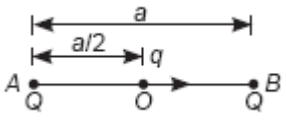
4 A charge q is placed at the centre of the line joining two equal charges Q. Show 2

that the system of three charges will be in equilibrium if $q = -Q/4$.

ANS: The system will be in equilibrium if,

$$F_{BA} = -F_{BO} \Rightarrow \frac{kQ^2}{a^2} = -\frac{kqQ}{\frac{a^2}{4}}$$

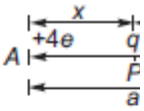
$$Q = -4q \Rightarrow q = \frac{-Q}{4}$$



5 Two fixed point charges + 4e and +e units are separated by a distance 'a'. Where should the third point charge be placed for it to be in equilibrium? 2

ANS:

The third charge (q) is in equilibrium only when



$$\vec{F}_{PA} = -\vec{F}_{PB} \quad \text{or} \quad F_{PA} = F_{PB}$$

$$\frac{k(4e)q}{x^2} = \frac{k(e)q}{(a-x)^2} \Rightarrow \frac{4}{x^2} = \frac{1}{(a-x)^2} \Rightarrow \frac{2}{x} =$$

$$\therefore \quad 2a - 2x = x \Rightarrow 3x = 2a \Rightarrow x = \frac{2}{3}a$$

$\therefore$ It should be placed at a distance $\frac{2}{3}a$ from the charge $+4e$.

6 An oil drop of mass m and charge $-q$ is to be held stationary in the gravitational field of the earth. What is the magnitude and direction of the electrostatic field required for this purpose? 2

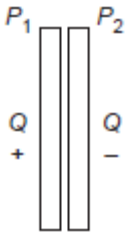
ANS: Let electric field =E, acting downward.

$$\because \quad qE = mg \Rightarrow E = \frac{mg}{q}$$

It is vertically downward.

7 Figure shows two large metal plates, P_1 and P_2, tightly held against each other and placed between two equal and unlike point charges perpendicular to the line joining them. 2

(i) What will happen to the plates when they are released?

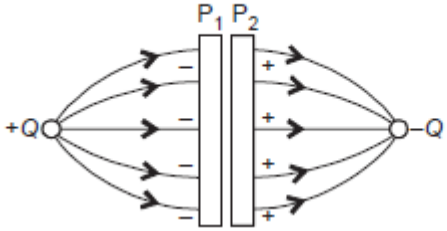


(ii) Draw the pattern of the electric field lines for the system.

ANS:

(*i*) They tend to move apart slightly due to the polarisation of charges i

(*ii*)



8

The electric field E due to a point charge at any point near it is defined as $E = \lim_{q \to 0} \frac{F}{q}$ where q is the test charge and F is the force acting on it. What is the physical significance of $\lim_{q \to 0}$ in this expression? Draw the electric field lines of a point charge Q when (*i*) $Q > 0$ and (*ii*) $Q < 0$. 2

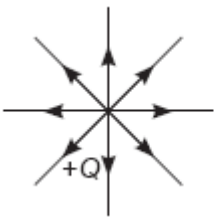
ANS: The electric field is defined as $E = \lim_{q \to 0} \frac{F}{q}$

We take the limiting value of q. It indicates that:

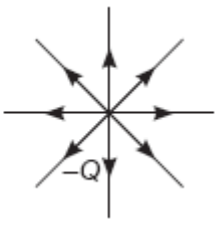
(*i*) The charge is so small in magnitude that it does not change the position of source charge.

(*ii*) It does not modify the electric field of the source charge.

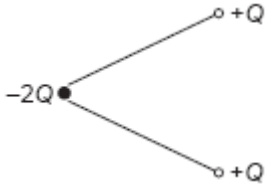
(*i*) $Q > 0$



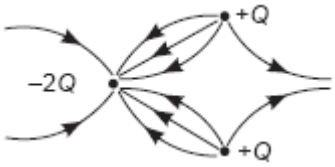
(*ii*) $Q < 0$



9 Sketch the electric field lines for the following system of charges. 2



ANS:



10 Two point electric charges of unknown magnitude and sign are placed at a distance d apart. The electric field intensity is zero at a point, not between the charges but on the line joining them. Write two essential conditions for this to happen. 2

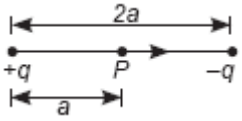
ANS: The two essential conditions are:
(i) two charges are of opposite sign.
(ii) two charges have different magnitudes (The charge of smaller magnitude will be nearer to the point where the total field intensity is zero).

11 Define electric field intensity. Write its SI unit. Write the magnitude and direction of electric field intensity due to an electric dipole of length $2a$ at the mid-point of the line joining the two charges. 2

ANS: Electric field intensity at a point is the electric force experienced by a unit positive charge placed at the point.

Its SI unit is NC^{-1} or Vm^{-1}.

$$E_P = \frac{1}{4\pi\varepsilon_0}\left(\frac{2q}{a^2}\right) \Rightarrow \vec{E}_P = -\frac{\vec{p}}{4\pi\varepsilon_0 a^3}$$



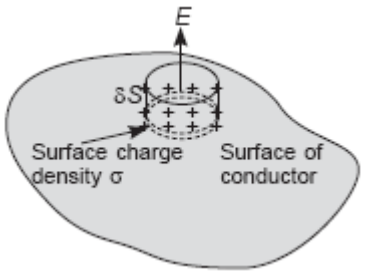
It is in the direction opposite to the direction of dipole moment (i.e. from + ve to −ve charge).

12 Show that the electric field at the surface of a charged conductor is given by $\vec{E} = \frac{\sigma}{\varepsilon_0}\hat{n}$, where σ is the surface charge density and $\hat{n}$ is a unit vector normal to the surface in the outward direction. 2

ANS:

Choose a short cylinder as a Gaussian surface about any point P on the surface as shown. The pill box is partly inside and partly outside the surface of the conductor. If δS = small area of cross-section, then just inside the surface, the electric field is zero; just outside, the field is normal to the surface with magnitude E. Thus, by Gauss's law

$$E\delta S = \frac{\sigma.\delta S}{\varepsilon_0} \text{ or } E = \frac{\sigma}{\varepsilon_0} \text{ or } \vec{E} = \frac{\sigma}{\varepsilon_0}\hat{n}$$



13 A thin straight infinitely long conducting wire having charge density λ is enclosed by a cylindrical surface of radius r and length l, its axis coinciding with the length of the wire. Find the expression for the electric flux through the surface of the cylinder. 2

ANS: According to the Gauss's law, the electric flux through a closed surface is $\frac{1}{\varepsilon_0}$ times the charge enclosed by the surface. $\phi = \frac{q}{\varepsilon_0}$ As the charge enclosed by the cylindrical surface is $q = \lambda l$. $\therefore \phi = \frac{\lambda l}{\varepsilon_0}$

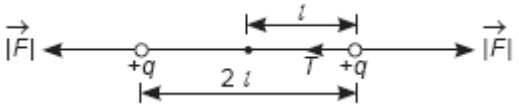
14 Define electric flux. Write its SI units. A spherical rubber balloon carries a charge that is uniformly distributed over its surface. As the balloon is blown up and increases in size, how does the total electric flux coming out of the surface change? Give reason. 2

ANS: The total number of electric lines of force passing through a given area normally is called electric flux through that area. $\phi_E = \vec{E} \cdot \vec{A}$ Its SI unit is N m^2 C^{-1}.
As electric flux does not depend upon the shape and size of the closed surface. The electric flux coming out of the surface will remain same as long as the charge enclosed by it remains same.

15 Two small balls with equal positive charges q coulomb are suspended by two insulating strings of equal length l metre from a hook fixed to a stand. The whole set up is taken in a satellite into space where there is no gravity. Find the angle between the strings and tension (T) in each string. 2

ANS:

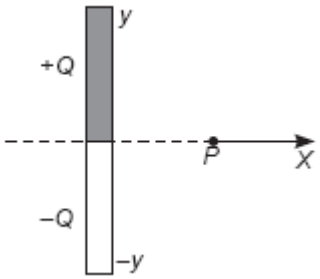
The angle between strings is 180° as only electrostatic force of repulsion will act on the two positively charged balls.



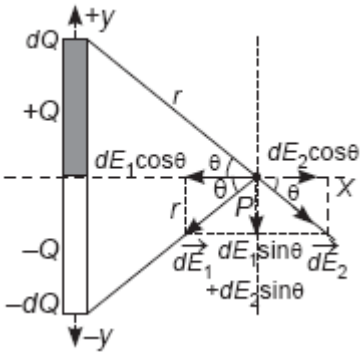
The magnitude of force on each ball is given by

$$|\vec{F}| = T = \frac{1}{4\pi\varepsilon_0}\frac{q^2}{(2l)^2}$$

16 The figure given below shows a uniformly charged non-conducting rod. What is the direction of electric field at point P due to the charge on the rod? 2



ANS: From the figure, we see that x-axis components of electric field due to upper and lower halves of the rod will get cancelled out. Therefore, net electric field will be in $-$ -axis.



17 Two charged spherical conductors, each of radius R, are at a distance d $(d > 2R)$ apart. They carry the charges $+q$ and $-q$. Will the force of attraction between them be exactly $\frac{q^2}{4\pi\varepsilon_0 d^2}$? 2

ANS: No, as the size of spherical conductors is large, therefore, due to the mutual attraction charges will come closer and the effective distance between them will decrease. Therefore, the force increases as

$$\propto \frac{1}{(\text{distance})^2}$$

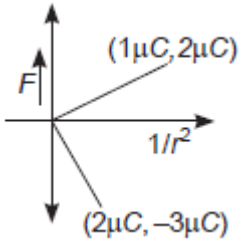
18

Plot a graph showing the variation of coulomb force $F(\ )$ versus $\left(\frac{1}{r^2}\right)$, where r is the distance between the two charges of each pair of charges: (1μC, 2μC) and (2μC, –3μC). Interpret the graphs obtained. 2

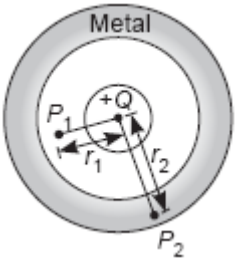
ANS: (a) The slope of the line is directly proportional to the force acting between the charges for a given separation.
(b) The nature of force is attractive between charges 2μC and –3μC and repulsive between charges 1μC and 2 μC.
According to the Coulomb's law,

$$F = \frac{kq_1q_2}{r^2}$$

$$\therefore \quad \frac{|F_1|}{|F_2|} = \frac{1\times10^{-6}\times2\times10^{-6}}{2\times10^{-6}\times3\times10^{-6}} = \frac{1}{3}$$



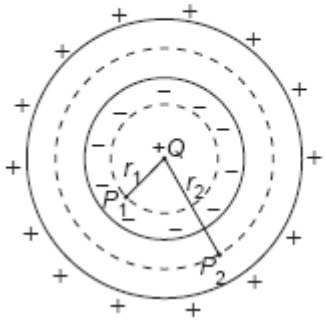
19 A small metal sphere carrying the charge $+Q$ is located at the centre of a spherical cavity in a large uncharged metal sphere as shown in the figure.
Use the Gauss's theorem to find the electric flux at points P_1 and P_2.



2

ANS: Let us draw a Gaussian sphere of radius r, passing through point P_1, then

$$\phi_{P_1} = \frac{\text{Charge enclosed}}{\varepsilon_0} = \frac{Q}{\varepsilon_0}$$



net electric flux through the sphere Now, we draw another Gaussian sphere of radius r_2 passing through point P_2.
As we can see, $-Q$ charge will be induced on the inner side of the cavity of metal sphere.

$\therefore$ Net electric charge enclosed $= Q - Q = 0$ $\therefore \quad \phi_{P_2} = 0$

20 A spherical rubber balloon carries a charge that is uniformly distributed over its surface. As the balloon is blown up and increases in size, how does the total electric flux coming out of the surface change? Give reason. 2

ANS: Unchanged. According to the Gauss's theorem, net electric flux depends on the charge enclosed.

21 A point charge Q is at the centre of a conducting shell and another charge q is outside the shell. Now, answer the following:
(a) Does the charge Q experience a force?
(b) Does the charge q experience a force? Explain. 2

ANS: (*a*) No (*b*) Yes

22 An electric dipole is free to move in a uniform electric field. Explain its motion when it is placed (i) parallel to the field, and (ii) perpendicular to the field. 2

ANS: (*i*) As an electric dipole is placed parallel to the field.

$\therefore \theta = 0°$

$\therefore \tau = pE \sin 0° = 0.$

Hence, net force on dipole is also zero.

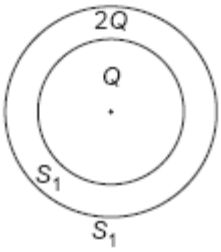
$\therefore$ Therefore, the dipole will remain in equilibrium.

(*ii*) $\because \theta = 90° \ (\vec{q} \perp \vec{E})$

$\therefore \tau = pE$ = maximum

Therefore, the dipole will rotate to align itself along the electric field, till it comes to equilibrium.

23 S_1 and S_2 are two hollow concentric spheres enclosing charge Q and $2Q$ respectively as shown in figure.
(i) What is the ratio of the electric flux through S_1 and S_2?
(ii) How will the electric flux through the sphere S_1 change, if a medium of dielectric constant 5 is introduced in the space inside S_1 in place of air? 2



ANS: (*i*) According to the Gauss's law, electric flux (Φ) is given by

$$\phi = \frac{q_{\text{enclosed}}}{\varepsilon_0}$$

$$\therefore \quad \frac{\phi_{s_1}}{\phi_{s_2}} = \frac{\left(\frac{Q}{\varepsilon_0}\right)}{\frac{(2Q+Q)}{\varepsilon_0}} = \frac{1}{3}$$

When a medium of dielectric constant K = 5 is introduced inside S_1, then the electric flux through S_1

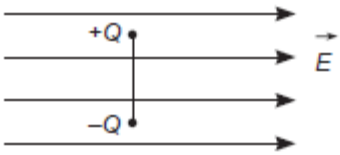
$$\phi_1' = \frac{Q}{\varepsilon} = \frac{Q}{K\varepsilon_0} = \frac{\phi}{K}$$

i.e. the flux will be reduced to $\frac{1}{5}$ th of its initial value.

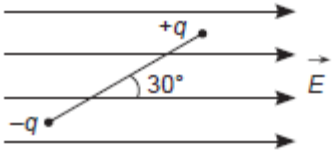
24 Show diagrammatically the orientation of the dipole in the field for which the torque is (i) maximum, (ii) half the maximum value, and (iii) zero. 2

ANS:

(*i*) Maximum torque (i.e. when $\vec{p} \perp \vec{E}$)



(*ii*) Half the maximum value

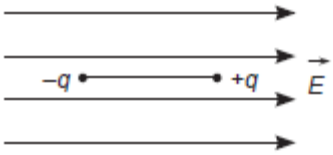


$\because \quad \tau_{max} = pE$

$\therefore$ New torque $= \frac{1}{2}pE = pE \sin\theta$

$\therefore \quad \theta = 30°$

(*iii*) $\because \quad \tau = 0 = pE \sin\theta \quad \Rightarrow \quad \theta = 0$



25 Explain how neutral bodies produce charges when rubbed with each other. 2

ANS: Atoms/molecules of neutral bodies contain equal number of electrons and protons. The electrons are bound to the nucleus by electrostatic force of attraction. When an object is rubbed, the energy is supplied, if this energy is sufficient to overcome the electrostatic force of attraction, with which outermost shell electrons are bound, then the electrons come out of their shells. In this way one body looses electrons and gets positively charged, and another body which gains electrons gets negatively charged.

HISTORY

Chapter 1

Answer the Following questions not more than 30 words- carry 1 marks

(1) What is Mound ?
(2) Complete the line-:
An extensive Survey in Kutch has revealed a no of Harappan Settlements and exploration in .....and ..... have added to the list of Harappan sites.
(3) Before joining as ASI general, John Marshall was working in ..... and .....
(4) over the decades which two new issues have been assumed importance?
(5) what was indirect evidence to know the history of Harappan Civilisation?

Answer the following questions not more than 100 words—- carry 3 marks

(6) States evidences of Harappan contact with distant lands?
(7) What could have been found purposes of the Great Bath?
(8) who was Cunningham? What was his confusion? What efforts did he make to study India, past ?

Answer the following questions not more than 350 words—- carry 8 marks

(9) Analyze the attempts made by archaeologists to reconstruct the religious belief of the Harappans.
(10) Which reconstructions about the Harappan Civilisation still remain speculative?

POLITICAL SCIENCE

CHAPTER 7 SECURITY IN THE CONTEMPORARY WORLD

Q1. What are the differences in the threats that people in the third world face and those living in the First World face?

Q2. Is terrorism a traditional or non- traditional threat to security?
Q3.What is Balance of Power? How could a state achieve this?
Q4. Rapid environmental degradation is causing a serious threat to security. Do you agree with the statement? Substantiate your arguments.

Q5. Highlight any two threats of a country's security at per traditional notion of security.
Or Explain traditional concept of security.

Q6. Explain any four components of India's security strategy

Passage Based Questions [5 Marks]

1. Read the following passage carefully and answer the questions:

The US and Soviet'Union signed a number of other arms control treaties including the Strategic Arms Limitations Treaty II (SALT II) and the Strategic Arms Reduction Treaty (START). The Nuclear Non-proliferation Treaty (NPT) of 1968 was an arms control treaty in the sense that it regulated the acquisition of nuclear weapons, those countries that had tested and manufactured nuclear weapons before 1967 were allowed to keep their weapons and those that had not done so were to give up the right to acquire them. The NPT did not abolish nuclear

weapons; rather, it limited the number of countries that could have them.
Questions
1. What is arms control treaty?
2. Was NPT an arms control treaty? Why?
3. What was the intention behind regulation of NPT?

2. Read the following passage carefully and answer the questions:

Global poverty is another source of insecurity. World population-now at 650 crore-will reach 700 to 800 crore within 25 years and many eventually level out at 900 to 1000 crore. Currently, half the world's population growth occurs in just six countries — India, China, Pakistan, Nigeria, Bangladesh and Indonesia. Among the world's poorest countries, population is expected to triple in next 50 years whereas many rich countries will see population shrinkage in that period, high per capita income and low population growth make rich states or rich social groups get richer, whereas low incomes and high population growth reinforce each other to make poor states and poor groups get poorer.
Questions
1. Name the countries expected to occur half the world's population growth.
2. Mention two reasons to make rich states more richer.
3. What makes poor countries more poorer?

Picture Based Questions [5 Marks]

1. Study the picture given below and answer the questions that follow:

Questions
1. What does the cartoon represent?
2. What does the pigeon and man with goods symbolise?
3. What message does the cartoon convey?

Questions
1. What does the cartoon represent?
2. Is it any different from our country?
3. What message does this cartoon convey?

GEOGRAPHY

CH-5 PRIMARY ACTIVITIES

1Marks question

1.What do you mean by economic activities?
2.Define a)primary activities b)factory farming c)Truck farming
3.What are Red collar jobs?
4.How is chewing gum formed?
5.What is meant by transhumance?
6.In which regions of the world is market gardening and horticulture most popular?

3Marks question
1.In modern times some gathering is market oriented and has become commercial.Explain.
2.Distinguish between:a)Primitive subsistence and intensive subsistence agriculture b)Plantation and Extensive commercial grain farming
3.What is mixed farming?Where is it found? Explain its features.
4.Explain the working methodology of cooperative farming.
5.What do you mean by Kolkhoz?How did it begin? Mention its features.

5Marks question

1.Hunting and gathering are the oldest known economi activities.Explain.
2.Write a detailed note on mining as an economic activity.
3.Dairy farming is a modern occupation-Explain.

HOTS Questions

1.The number of pastoral nomads has been decreasing and the areas operated by them shrinking.Why?
2.Why is plantation agriculture practiced mainly in tropical and sub-tropical areas of the world?

PSYCHOLOGY

Who gave the following theories/concepts:		
1.	Uni factor Theory of intelligence	
2.	Personality Types- Sanguine, Phlegmatic, Melancholic etc.	
3.	Two Factor Theory of Intelligence	
4.	Two Step Concept for attitude change	
5.	Concept of id, ego and superego given by	
6.	P-F study	
7.	Rorschach Inkblot Test	
8.	Five Factor Model of personality	
9.	Type-A and Type B Personality	
10.	Theory of Multiple Intelligence	
11.	Psychosexual stages	
12.	Triarchic Theory of Intelligence	
13.	Type C and Type D Personality	
14.	PASS model of intelligence	
15.	Concept of Mental Age	
16.	Concept of Cardinal, Central and Secondary traits	
17.	Concept of IQ	
18.	16 PF was developed by	
19.	Thematic Apperception Test	
20.	Unconditional Positive Regard	

(SHORT QUESTION TYPE I: 3 MARKS)

21. Can interest and aptitude help to predict success in life? Give reasons to substantiate your answer.
22. What is technological intelligence?

(SHORT QUESTION TYPE II: 4 MARKS)

23. What are self report measures?
24. What is assessment? Discuss any two methods used for psychological assessment.
25. Explain any two psychometric approaches to intelligence.
26. What are the three types of intelligences defined by Sternberg?

LEGAL STUDIES
UNIT-III

ADR

SHORT TYPE QUESTION:

Q1. Define the term Arbitration?

Q2. Classify the two models of justice dispensing system in the legal system.

Q3. Name the different types of specialized tribunals in the Vedic age in India?

Q4. What courts is named as People's Court?

Q5. What are the different types of ADR in India?

Q6. What do you mean by the term Stare Decisis?

Long Type Questions:

Q1. What are the advantages and disadvantages of the adversarial system models of adjudication?

Q2. Mention the advantages and disadvantages of the Inquisitorial system?

Q3. What is the process of arbitration as dispute settlement mechanism?

Q4. Define the following terms:

a) Arbitration agreement
b) Enforcement of arbitral award
c) Setting aside of arbitral award.

HINDI
CHAPTER 7

(क) भरत - राम का प्रेम
(ख) पद
PAGE 45, प्रश्न और अभ्यास
भरत - राम का प्रेम
12:1:7:प्रश्न और अभ्यास:1

'हारेह खेल जितावहिं मोही भरत के इस कथन का क्या आशय है?

उत्तर - प्रस्तुत पंक्ति के माध्यम से तुलसीदास जी ने श्री राम चंद्र और भरत के सकरात्मक चरित्र को तुलसीदास जी कहते है की खेल के मैदान में श्री राम जी अपने भाई भरत को हमेशा जीतने देते है क्योंकि वह नहीं चाहते है की भरत किसी भी प्रकार का कष्ट उठाये। भारत अपने भाई श्रीराम चंद्र जी की प्रशंसा करते हुए कहते है की श्रीराम जी बहोत दयालु और स्नेह रखने वाले है। इस प्रकार दोनों भाई एक दूसरे के लिए सकारात्मक विचार रखते है। जिस से दोनों के बीच असीम प्रेम और श्रद्धा है।
Question 1:
'हारेंहु खेल जितावहिं मोही' भरत के इस कथन का क्या आशय है?

ANSWER:
यह पंक्ति भरत जी ने श्रीराम के चरित्र के सकारात्मक पक्ष को उजागर करने हेतु कही है। इसका आशय है कि श्रीराम खेल खेलते समय भरत को जिताने हेतु जान-बुझकर हार जाते हैं। भरतजी कहते हैं कि भगवान राम बड़े ही दयालु और स्नेही प्रकृति के भाई हैं। वह खेल में अपने छोटे भाई भरत से इसलिए हार जाते थे ताकि उसे किसी भी प्रकार का कष्ट न हो और वह पूरे उत्साह के साथ खेल खेलता रहे। उनके इस व्यवहार के कारण भरत की सदैव जीत होती थी। इस तरह भरत अपने भाई की प्रशंसा करते हैं, तो दूसरी तरफ उनके भाई के प्रति असीम श्रद्धा और कृतज्ञता का भाव भी उजागर होता है।
Page No 45:
Question 2:
'मैं जानउँ निज नाथ सुभाऊ' में राम के स्वभाव की किन विशेषताओं की ओर संकेत किया गया है?

ANSWER:
प्रस्तुत पंक्ति में राम के स्वभाव की इन विशेषताओं की ओर संकेत मिलता है-

(क) राम दयालु और स्नेही व्यक्ति हैं। उन्होंने बाल्यकाल से ही भरत पर स्नेह और दया की वर्षा की है।

(ख) भरत, राम के प्रिय अनुज थे। उन्होंने सदैव भरत के हित के लिए कार्य किया है।

(ग) वे खेल में भी कभी अपने अनुज भरत के प्रति अप्रसन्नता नहीं दिखाते थे। वे सदैव उसे प्रसन्न रखने का प्रयास करते थे।

(घ) वे अपराधी पर क्रोध नहीं करते थे।

Page No 45:
Question 3:
भरत का आत्म परिताप उनके चरित्र के किस उज्जवल पक्ष की ओर संकेत करता है?

ANSWER:
माता कैकेयी ने पुत्र मोह में आकर राम को चौदह वर्ष के लिए वनवास और भरत के लिए अयोध्या का राज्य माँगा था। कैकेयी की इस भयंकर भूल के कारण राम को चौदह वर्ष के लिए वन को जाना पड़ा तथा पिता इस दुख में अस्वस्थ्य हो गए। लोगों ने इन सबके लिए भरत को ही दोषी माना। भरत माँ की इस गलती के लिए स्वयं परिताप करते हैं। उनका मानना है कि इस भूल के दोषी वहीं है क्योंकि यदि वह नहीं होते, तो माता ऐसा कभी नहीं करती। इस तरह वह माँ पर दोषारोपण नहीं करते। वे जो घटित हुआ उसे अपने पूर्व जन्म का पाप मानते हैं। माँ की गलती का दोष स्वयं लेकर वह स्वयं साधु भी नहीं बनना चाहते हैं।
Page No 45:
Question 4:
राम के प्रति अपने श्रद्धाभाव को भरत किस प्रकार प्रकट करते हैं, स्पष्ट कीजिए।

ANSWER:
भरत अपने बड़े भाई राम से बहुत स्नेह करते हैं। वे स्वयं को अपने बड़े भाई राम का अनुचर मानते हैं और उन्हें भगवान की तरह पूजा करते हैं। वन में जब वे भाई से मिलने जाते हैं, तो उनके सामने खड़े होकर वे प्रसन्नता से फूले नहीं समाते। अपने भाई से मिलन होने पर उनकी आँखों में आँसुओं की जलधारा प्रवाहित होने लगती हैं। अपने भाई को अपना स्वामी कहकर, वह अपनी इच्छा प्रकट करते हैं। भाई की विशेषताओं का बखान करके वे अपनी श्रद्धा व्यक्त करते हैं और आशा करते हैं कि भाई के दर्शन प्राप्त होने के बाद सब अच्छा ही होगा। अपने वनवासी भाई की दशा देखकर वह दुखी हो उठते हैं और स्वयं को इसका कारण मानते हैं। उनकी यही अधीरता अपने बड़े भाई के प्रति अपार श्रद्धा का परिचायक है।
Page No 45:
Question 5:
'महीं सकल अनरथ कर मूला' पंक्ति द्वारा भरत के विचारों-भावों का स्पष्टीकरण कीजिए।

ANSWER:
प्रस्तुत पंक्ति में भरत स्वयं के प्रति अपना दृष्टिकोण अभिव्यक्त करते हैं। भरत मानते हैं कि इस पथ्वी में जितना भी अनर्थ हो रहा है, वे इन सबके मूल हैं। अर्थात उनके कारण ये सब घटनाएँ घट रही हैं। इस प्रकार वे स्वयं को दोषी मानते हुए दुखी हो रहे हैं। ऐसा प्रतित होता है मानो वे अपराध बोध के नीचे दबे हुए हैं, जिसका बोझ उन्हें असाध्य दुख दे रहा है। उनके मन में किसी के लिए भी बैरभाव तथा कलुषित भावना विद्यमान नहीं है। जो हुआ है वे स्वयं को इस सबका ज़िम्मेदार मानते हुए माता कैकेयी को कहे कटु शब्दों के लिए भी दुख प्रकट करते हैं। इससे पता चलता है कि भरत सच्चे, क्षमाशील और सहृदय व्यक्ति हैं।
Page No 45:
Question 6:
'फरइ कि कोदव बालि सुसाली। मुकुता प्रसव कि संबुक काली'। पंक्ति में छिपे भाव और शिल्प सौंदर्य को स्पष्ट कीजिए।

ANSWER:
भाव सौंदर्य- प्रस्तुत पंक्ति में भाव है कि जिस प्रकार मोटे चावल (कोदे) की बाली में उत्तम चावल नहीं उगाता है और तालाब में मिलने वाले काले घोंघे मोती उत्पन्न नहीं कर सकते हैं, वैसे ही यदि मैं अपनी माँ पर कलंक लगाऊँ और स्वयं को साधु बताऊँ तो यह संभव नहीं है। संसा में कहा मैं कैकेयी का पुत्र ही जाऊँगा।

शिल्प सौंदर्य- तुलसीदास ने अवधी भाषा का प्रयोग किया है। यह चौपाई छंद में लिखा गया है। भाषा प्रवाहमयी है। इसकी शैली गेय है। 'कि कोदव' अनुप्रास अलंकार आ उदाहरण है।
Page No 45:
Question 1:
राम के वन-गमन के बाद उनकी वस्तुओं को देखकर माँ कौशल्या कैसा अनुभव करती हैं? अपने शब्दों में स्पष्ट कीजिए।

ANSWER:
राम के वन-गमन जाने के बाद माँ उनकी वस्तुएँ देखकर भाव-विभोर हो जाती हैं। उनका स्नेह आँसुओं के रूप में आँखों से छलक पड़ता है। उन्हें राजभवन में तथा राम के भवन में राम ही दिखाई देते हैं। उनकी आँखें हर स्थान पर राम को देखती हैं और जब उन्हें इस बात का स्मरण आता है कि राम उनके पास नहीं हैं, वह चौदह वर्षों के लिए उनसे दूर चले गए है, तो वे चित्र के समान चकित और स्तब्ध रह जाती हैं। राम से जूड़ी वस्तु को नेत्रों से लगा लेती हैं। वह इतनी व्याकुल हो जाती हैं कि उन्हें स्वयं की भी सुध नहीं रहती हैं। पुत्र के कष्टों का भान करते हुए वे और भी दुखी हो जाती हैं।
Page No 45:
Question 2:
'रहि चकि चित्रलिखी सी' पंक्ति का मर्म अपने शब्दों में स्पष्ट कीजिए।

ANSWER:
इस पंक्ति में पुत्र वियोगिनी माता का दुख दुष्टिगोचर होता है। माता कौशल्या राम से हुए वियोग के कारण दुखी और आहत है। वे राम की वस्तुएँ को देखकर स्वयं को बहलाने का प्रयास करती हैं। उनका दुख कम होने के स्थान पर बढ़ता चला जाता हैं। परन्तु जब राम के वनवासी जीवन का स्मरण करती हैं, तो हैरानी से भरी हुई चित्र के समान स्थिर हो जाती हैं। जैसे चित्र में बनाई स्त्री के मुख तथा शरीर में किसी तरह का हाव-भाव विद्यमान नहीं होता है, वैसे ही राम की दुखद अवस्था का भान करके माता कौशल्या चकित तथा स्तब्ध अवस्था में होने के कारण हिलती भी नहीं हैं।
Page No 45:
Question 3:
गीतावली से संकलित पद 'राघौ एक बार फिरि आवौ' मैं निहित करुणा और संदेश को अपने शब्दों में स्पष्ट कीजिए।

ANSWER:
प्रस्तुत पंक्ति में माता कौशल्या का दुख और पुत्र वियोग दुष्टिगोचर होता है। माता कौशल्या राम के वन में जाने से बहुत दुखी हैं। वे अपने पुत्र राम को वापस आने का निवेदन करती हैं। कौशल्या का यह निवेदन अपने लिए नहीं है बल्कि राम के घोड़े के लिए है। राम का घोड़ा उनके जाने से बहुत दुखी है। वह भरत की देखभाल के बाद भी कमज़ोर होता जा रहा है। कौशल्या माता से उसका दुख नहीं देखा जाता है। वे घोड़े का विरह भली-प्रकार से समझ पा रही हैं। दोनों ही राम को बहुत प्रेम करते हैं। अत: उनका हृदय रो पड़ता है और वे यह कहने के लिए विवश हो जाती हैं कि राम तुम एक बार लौट कर आ जाओ, मेरे लिए नहीं अपने प्रिय घोड़े के लिए आ जाओ।
Page No 45:
Question 4:
(क) उपमा अलंकार के दो उदाहरण छाँटिए।

(ख) उत्प्रेक्षा अलंकार का प्रयोग कहाँ और क्यों किया गया है? उदाहरण सहित उल्लेख कीजिए।

ANSWER:
(क) उपमा अलंकार के दो उदाहरण इस प्रकार हैं-

1. "कबहुँ समुझि वनगमन राम को रही चकि चित्रलिखी सी।"– इस पंक्ति में 'चित्रलिखी सी' में उपमा अलंकार है। इसमें माता कौशल्या की दशा का वर्णन चित्र रूप में उकेरी गई स्त्री से किया गया है। जैसे- चित्र में बनी स्त्री हिलती-डुलती नहीं है, वैसे ही माता कौशल्या राम को अपने पास न पाकर चित्र के समान स्तब्ध और चकित खड़ी रह जाती है।

2. 'तुलसीदास वह समय कहे तें लागति प्रीति सिखी सी।'– इस पंक्ति में 'सीखी सी' में उपमा अलंकार है। इसमें माता कौशल्या की दशा मोरनी के समान दिखाई गयी है। जो वर्षा के समय प्रसन्न होकर नाचती है परन्तु जब उसकी दुष्टि अपने पैरों पर जाती है, तो वह रो पड़ती है।

(ख) उत्प्रेक्षा अलंकार का प्रयोग गीतावली के दूसरे पद की इस पंक्ति में हुआ है- "तदपि दिनहिं दिन होत झाँवरे मनहुँ कमल हिमसारे।" इसमें राम वियोगी घोड़ों की मुरझाई दशा की संभावना ऐसे कमलों से की गई है, जो बर्फ की मार के कारण मुरझा रहे हैं। ऐसा करके तुलसीदास जी ने घोड़ों की दशा का सटीक वर्णन किया है। उत्प्रेक्षा अलंकार का प्रयोग कर कवि ने उपमेय में उपमान की संभावना कर पद का सौंदर्य निखार दिया है और घोड़ों का दुख बहुत सजीव रूप में उभरकर सामने आया है।

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Question 5:

पठित पदों के आधार पर सिद्ध कीजिए कि तुलसीदास का भाषा पर पूरा अधिकार था?

ANSWER:

तुलसीदास द्वारा रचित पदों का पठन करते ही यह सिद्ध हो जाता है कि तुलसीदास का भाषा पर पूरा अधिकार था। वे संस्कृत, ब्रज और अवधी तीनों भाषा के ज्ञाता थे। उन्होंने राम-भरत का प्रेम अवधी भाषा में लिखा है और पद ब्रजभाषा में लिखे हैं। दोनों की भाषाओं में मधुरता और सुंदर शब्द विन्यास दृष्टिगोचर होता है। भाषा सरल और सहज है। गीतावाली की रचना पद शैली में हुई है। इसमें अनुप्रास अलंकार का प्रयोग सर्वत्र दिखाई देता है। उपमा अलंकार और उत्प्रेक्षा अलंकार की छटा भी पदों का सौंदर्य निखार देती है।

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Question 6:

पाठ के किन्हीं चार स्थानों पर अनुप्रास के स्वाभाविक एवं सहज प्रयोग हुए हैं उन्हें छाँटकर लिखिए?

ANSWER:

(क) कबहुँ प्रथम ज्यों जाइ जगावति कहि प्रिय बचन सवारे।

इस पंक्ति में 'ज' वर्ण की आवृत्ति एक से अधिक बार हुई है। अत: यहाँ अनुप्रास अलंकार है।

(ख) कबहुँ कहति यों "बड़ी बार भइ जाहु भूप पहँ, भैया।

इस पंक्ति में 'क' तथा 'ब' वर्ण की आवृत्ति एक से अधिक बार हुई है। अत: यहाँ अनुप्रास अलंकार है।

(ग) ए बर बाजि बिलोकि आपने बहुरो बनहिं सिधावौ।

इस पंक्ति में 'ब' वर्ण की आवृत्ति एक से अधिक बार हुई है। अत: यहाँ अनुप्रास अलंकार है।

(घ) जे पय प्याइ पोखि कर-पंकज वार वार चुचकारे।

इस पंक्ति में 'प' तथा 'व' वर्ण की आवृत्ति एक से अधिक बार हुई है। अत: यहाँ अनुप्रास अलंकार है।

Page No 46:

Question 1:

'महानता लाभलोभ से मुक्ति तथा समर्पण त्याग से हासिल होता है' को केंद्र में रखकर इस कथन की पुष्टि कीजिए।

ANSWER:

महानता कोई वस्तु नहीं है, जिसे हर मनुष्य द्वारा पाया जा सकता है। यह वह पदवी है, जो विरले किसी व्यक्ति को समाज द्वारा प्राप्त होती है। यह वह सम्मान है, जो व्यक्ति को उसकी उदारता, त्याग तथा समर्पण के कारण प्राप्त होता है। साधारण मनुष्य सारा जीवन लाभ-लोभ के फेर में पड़ा रहता है। उसे अपनी सुख-सुविधाओं की चिंता होती है। वह सारी उम्र उन्हें पाने के लिए प्रयासरत्त रहता है। परन्तु जो मनुष्य इस प्रकार की भावनाओं से मुक्त हो जाता है और परहित के लिए अपना जीवन स्वाहा कर देता है, उसे इस भावना से युक्त माना जाता है। यह भाव मनुष्य को अपने लिए नहीं दूसरे के लिए करने के प्रेरित करता है। ऐसा व्यक्ति भगवान के समक्ष आ बैठता है।

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Question 2:

भरत के त्याग और समर्पण के अन्य प्रसंगों को जानिए।

ANSWER:
यह सब जानते हैं कि भरत ने अयोध्या के राजसिंहासन पर राम के स्थान पर कभी न बैठने का निश्चय किया था। यह बहुत कम लोग जानते हैं कि उन्होंने राम की खड़ाऊ को उनके स्थान पर सुसज्जित कर राम के वापस आने तक अयोध्या का शासन चलाया था। जब तक राम वापस नहीं आए उन्होंने स्वयं को दोषी मानते हुए राजमहल की सुख-सुविधाओं का त्याग कर दिया और वनवासियों की तरह नगर से बाहर चौदह वर्षों तक झोपड़े में रहते हुए जीवनयापन किया। उनका मानना था कि उनके मोह में आकर कैकयी ने राम को चौदह वर्ष का वनवास दिया था। अतः वही माता के द्वारा किए पाप का पश्चाताप करेगें और राम-लक्ष्मण तथा सीता के जैसा ही कष्टप्रद जीवनयापन करेगें। इसके साथ ही उन्होंने यह प्रण लिया था कि यदि राम चौदह वर्ष का वनवास काटकर अयोध्या का राजपाठ नहीं संभालेगें, तो उसी क्षण वह अपने प्राणों का त्याग कर देगें। भरत एक आदर्श भाई थे। जिन्होंने सौतेलेपन की परिभाषा बदल दी और पूरे भारत में अपना नाम अमर कर दिया।
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Question 3:
आज के संदर्भ में राम और भरत जैसा भातृप्रेम क्या संभव है? अपनी राय लिखिए।

ANSWER:
आज के युग में राम और भरत जैसा भातृप्रेम मिलना संभव नहीं है। आज सगे भाइयों में धन-दौलत को लेकर विवाद खड़ा हो जाता है। भाई-भाई को मारने से बाज़ नहीं आता है। लोगों के लिए संबंधों से अधिक धन प्रिय है। जब तक धन -दौलत की बात नहीं उठती है, रिश्तों में मधुरता विद्यमान रहती है। जहाँ धन आ खड़ा होता है, वहाँ दुश्मनी की विशाल दीवार उत्पन्न हो जाती है। कोई भी अपना हक छोड़ने को तैयार नहीं होता, सबको अपना सुख तथा अपना उज्जवल भविष्य प्यारा होता है। राम के लिए भरत ने और भरत के लिए राम ने राज्य का मोह त्याग दिया। दोनों ने भातृ प्रेम को महत्व दिया और चौदह वर्ष का वनवास भोगा। राम ने घर छोड़कर वन की राह ली और भरत ने अयोध्या में रहते हुए वनवासी का जीवन व्यतीत किया। ऐसा प्रेम तो विरले ही देखने को मिलता है। आज धन-दौलत के नाम पर भाई ने भाई का खून किया इस प्रकार की खबरें पढ़ने में आती है परन्तु भाई ने भाई के लिए अपने प्राण त्याग किए ऐसी खबर कहीं सुनाई भी नहीं देती।

PAINTING

PRACTICAL UNIT- 1

Nature and Object Study

1.) Do practice of two or three natural and geometric forms in pencil with light and shade from a fixed point of view.Use natural forms like plants,vegetables,fruits and flower,etc.And use geometric forms of objects like cubes,cones,prisms,cylinders and spheres and two draperies (in different colours) for background and foreground.

(Minimum four works to be done in different composition. Each work to be done on half imperial size cartridge sheet.)

PRACTICAL UNIT- 1

Nature and Object Study

1.) Do practice of two or three natural and geometric forms in water colour with light and shade from a fixed point of view.Use natural forms like plants,vegetables,fruits and flower,etc.And use geometric forms of objects like cubes,cones,prisms,cylinders and spheres and two draperies (in different colours) for background and foreground.

(Minimum two works to be done in different composition. Each work to be done on half imperial

size cartridge sheet.)

PHYSICAL EDUCATION
Chapter II
Sports and Nutrition

Multiple Choice Questions

Q1. What is another name of riboflavin?
(a) Vitamin B (b) Vitamin B5 (c) Vitamin B2 (d) Vitamin C

Q2. Who discovered vitamin A?
(a) Theo Haimann
(b) Elmer MacCollum
(c) O'Donnell
(d) None of these

Q3.Which of the following vitamin is insoluble in fats?
(a) A (b) E (c) K (d) C

Q4. Deficiency of which of the following leads to rickets?
(a) Iron (b) Iodine (c) Calcium (d) Chromium

Q5. What is the calorific value of water?
(a) 10 joules/calorie
(b) 0 joule/calorie
(c) 25 joules/calorie
(d) 10 joules/calorie

Short Answer Type Questions

Q1. Define balanced diet and mention the elements of diet.
Q2. How is nutrition different from food?
Q3. Write briefly about minerals as an important nutritive component.
Q4. Write a short note on vitamins and their types.
Q5. What are the different forms of vitamin B complex? Explain any one of them.
Q6. Explain the role of fibre in diet.
Q7. What do you understand by micronutrients? Explain the sources and role of any two macronutrients.
Q8. Discuss any three macro minerals and their importance.
Q9. Discuss any three micro minerals and their importance.
Q10. Why is water important even though it is non-nutritive?
Q11. How would you differentiate between colour compounds and flavour compounds?
Q12. How does protein act as a nutritive component of diet?
Q13. Discuss water soluble vitamins briefly.
Q14. Explain the cause and management of food intolerance.
Q15. What do you understand by food myths? Discuss briefly about various food myths.

Long Answer Type Questions

Q1. What is balanced diet? Elucidate its any four constituents.
Q2. Explain macronutrients and their role in our diet.
Q3. Discuss micronutrient in detail.
Q4. “Vitamins are essential for our metabolic process”. What happens if our diet is devoid of vitamins?
Q5. How do minerals contribute to our health? Explain citing at least four examples of each type of minerals.
Q6. What are fats? Write a detailed note on its types. Also mention its importance in the proper functioning of the body.
Q7. Write a note on nutritive components of diet.
Q8. Write a note on non-nutritive components of diet.
Q9. Explain any five essential elements of diet.
Q10. How can healthy weight be maintained? Explain.
Q11. What are the various pitfalls of dieting?

INFORMATICS PRACTICES

Assignment - 3
Inverse Trigonometric Function

34. Write the advantages of Biometrics in school.
35. Differentiate between Hacker and Cracker.
36. What do you mean by illegal downloads? What are its repercussions?
37. How does technology impact the society? Explain with the help of an example.
38. Write the drawback of social media networks.
39. What are the elements of a viral video?
40. In what ways can you measure social return on investment (ROI)?
41. Write the names of 5 social media sites which are very popular.
42. What is plagiarism?
43. Name the different types of intellectual property.
44. What do you understand by trademark and intellectual property?
45. How can we increase the participation of females with disabilities in STEM-based projects?
46. What is online campaign? How does it help in society reformation?
47. Define crowdsourcing. Explain its drawbacks and benefits.
48. How many types of crowdsourcing are there? Explain each of them.
49. How does crowdsourcing play a vital role in digitization?
50. What is smart mob? How can you relate smart mob to flash mob?
51. How is internet affecting one's daily life? Give one example each of positive and negative aspect of
52. Name any three areas where internet addiction is advantageous.
53. What do you understand by the term "internet neutrality"?
54. List any three benefits of implementing "internet neutrality".
55. How does an echo chamber affect one's opinion towards a specific thought? How does it work?
56. What do you mean by "internet addiction"? How can you identify a person addicted to internet?
57. List at least three emotional and physical symptoms of internet addiction.