# May the melody and spirit of holidays fill your home with love and peace. 

## "HAPPY NEW YEAR 2024"

## WINTER HOLIDAYS ASSIGNMENT

CLASS XI

## Dear students,

As you embark on your winter holiday break, remember that learning never stops. Your holiday homework is a chance to explore new horizons and strengthen your knowledge. Embrace this opportunity, stay committed, and return in January with a sense of accomplishment. Your future is shaped by your dedication today. Enjoy your break and make it productive!


## ENGLISH

Q1. Why was Joe Morgan waiting for Andrew even though it was nearly midnight?
Q2. What were Andrew's thoughts as he waited for the childbirth?
Why were they heavy and muddled?
Q3. How did Dr Andrews feel when he saw the stillborn child? How did he save the child's life?

Q4. Narrate the story of poem 'The Tale of Melon City' in your own words.
Q5. What impression would you form of a State where King was 'Just and placid'?
Q6. Suggest a few instances in the poem which highlight humour and irony in the poem
'The Tale of Melon City'.
Q7. What is the poet's feeling towards childhood?
Q8. In the Poem, 'Childhood', which lines according to you, are the most poetic lines and why?

Q9. Why is the father unhappy with his son?
Q10. Why is the father unable to understand his son in 'Father to Son'?
Q11. The increasing amount of time spent playing indoor games has been a major cause of decreasing the outdoor appearance of children. With this concern, write a speech to be delivered in the morning assembly in 150-200 words. You are Parag/Pragati.

Q12. "Academic excellence is the only requirement for a successful career.
Write a debate either for or against the motion. (120 - 150 words).
Q13. You are Krishna/ Tisha, Secretary, Greenland Enterprises Ltd, Delhi-110006. Your chairman has asked you to draft an advertisement for a local daily under the classified columns for the vacant posts of one accountant and two office assistants. Draft an advertisement for the same in about 50 words.

Q14. You want to purchase a flat. Draft an advertisement in about 50 words for a newspaper, detailing your requirements and your capacity to pay.

Q15. You are the secretary of the Indian Institute of Foreign Languages, Hyderabad. Draft a suitable advertisement to be published in a newspaper announcing the commencement of new courses.

Q16. The Directorate of Education, Orissa State is organising an Essay Contest for all the students of the state. Prepare a suitable poster which can be sent to different schools to display on their notice-board.

Q17. Design a poster in not more than 50 words for your school library on the value of books and good reading habits. You may use slogans.

Q18. Select any paragraph of your own choice and make notes \& summarize it.
Q19. Arrange these words into correct sentences

1. killed/they are/beaten/chained/and/mercilessly/trained.
2. their/heed/but/hears/and/pays/nobody/to/cries.
3. friends/auxiliaries/animals/necessary/are our/and/survival/for our
4. animal/matters/our vision/a world/should be/where/welfare

Q20. Fill in the blanks with correct form of the verb.

1. Only one of the boys $\qquad$ not done the home-work given yesterday.
2. When the thief entered the house, the inmates $\qquad$ in the hall.
3. They did not know where they $\qquad$ from.
4. All the applicants $\qquad$ and the results will be announced next week

## MATHEMATICS

Q1. Find the image of the point $(-8,12)$ with respect to the line mirror $4 x+7 y=-13$.
Q2. Find the equation of the line through the point $(3,2)$ which makes an angle of $45^{\circ}$ with the line $x-2 y=3$.

Q3. A line is such that its segment between the lines $5 x-y+4=0$ and $3 x+4 y-4=0$ is bisected at the point $(1,5)$. Obtain its equation.

Q4. Two lines passing through the point( 2,3 ) intersects each other at an angle $60^{\circ}$.if slope of one line is 2 ,find the equation of the other line.

Q5. Find the equations of the lines which are parallel to the line $3 x=4 y+5$. and are a distanceof 1 unit from it.

Q6. Find the equation of the line equidistant from the lines $x=-2$ and $x=10$.
Q7. Find the equation of a linewhich passes through the point $(22,-6)$ and the intercept on the x-axis exceeds the intercept on the $y$-axis by 5 .

Q8. If lines $a x+2 y+1=0, b x+3 y+1=0$ and $c x+4 y+1=0$ are concurrent, show that $a, b, c$ are in A.P.

Q9. Find the equation of the circle passing through $(0,0)$ and making intercepts a and $b$ on the coordinate axes.

Q10. Find the eccentricity,vertices,foci,directrices,transverse axis,conjugate axis and latus rectum of the hyperbola $\frac{y^{2}}{25}-\frac{x^{2}}{16}=1$.

Q11. Find the equation of circumcircle of a triangle whose vertices are $(1,0),(-1,0)$ and $(0,1)$.

Q12. If one end of diameter of a circle $x^{2}+y^{2}-4 x-6 y+11=0$ is $(8,4)$, show that coordinates of other end are $(-4,2)$.

Q13. Find the equation of the circle concentric with the circle $x^{2}+y^{2}+6 x-4 y+4=0$ and double its area.

Q14. Find the centre and radius of the circle $x^{2}+y^{2}-2 a x \cos \theta-2 a y \sin \theta=0$.
Q15. If $p$ is the length of the perpendicular from the origin on the line $x / a+y / b=1$.and $a^{2}, p^{2}, b^{2}$ are in AP then show that $a^{4}+b^{4}=0$.

## PHYSICS

Q1. Glass, rubber, steel, copper in order of increasing the property of elasticity
a) Copper, glass, rubber, steel
b) Steel,copper,glass,ruber
c) Rubber,glass,copper,steel
d) Glass, rubber,copper,steel

Q2. Two wires of the same radius and material and having length in the ratio 8.9: 7.6 are stretched by the same force. The strains produced in the two cases will be in the ratio:
a) $1: 1$
b) $8.9: 1$
c) $1: 7.6$
d) $1: 3.2$

Q3. Which of the following is NOT the characteristic of turbulent flow?
a) Velocity more than the critical velocity
b) Velocity less than the critical velocity
c) Irregular flow
d) Molecules crossing from one layer to another

Q4. A small rain droplet is falling with terminal speed $v$. Terminal speed of another droplet of radius twice the radius of first droplet will be:
a) $v$
b) $2 v$
c) 8 v
d) $4 v$

Q5. Calorimeter helps us to determine
a) Boiling point
b) Melting point
c) Specific heat
d) Freezing point

Q6. Two liquids $A$ and $B$ are at $30^{\circ} \mathrm{C}$ and $20^{\circ} \mathrm{C}$ respectively. When they are mixed in equal masses the temperature of the mixture is found to be $26^{\circ} \mathrm{C}$. The ratio of specific heats is
a) $4: 3$
b) $3: 4$
c) $2: 3$
d) $3: 2$

Q7. Which of the following is slow process
a) Isothermal
b) Adiabatic
c) Isobaric
d) None of these

Q8. A container has N molecules at absolute temperature T If the number of molecules is doubled but kinetic energy in box remains the same as before, the absolute temperature of the gas is
a) T
b) $\mathrm{T} / 2$
c) Zero
d) 2 T

Q9. If a certain mass of gas is heated first in a small vessel of volume : V1 and then in a large vessel of volume V2. Draw the P-T graph for two cases?

Q10. If a big drop of radius $R$ is formed by 1000 small droplets of water, then find the radius of small drop?

Q11. The reading of a pressure metre attached to a closed is $2.5 \times 10^{\wedge} 5 \mathrm{~N} / \mathrm{m}^{2}$. On opening the valve of pipe, the reading of the pressure metre reduces to $2.0 \times 10^{\wedge} 5$ $\mathrm{N} / \mathrm{m}^{2}$. Calculate the speed of water flowing through the pipe?

Q12. Water is more elastic than air. Why?

Q13. Read the following two statements below carefully and state, with reasons, if it is true or false.
(a) The Young's modulus of rubber is greater than that of steel;
(b) The stretching of a coil is determined by its shear modulus.

Q14. A copper block of mass 2.5 kg is heated in a furnace to a temperature of 500 ${ }^{\circ} \mathrm{C}$ and then placed on a large ice block. What is the maximum amount of ice that can melt? (Specific heat of copper $=0.39 \mathrm{Jg} \mathrm{K}^{-1}$; heat of fusion of water $=335 \mathrm{Jg}^{1}$ ).

Q15. A gas is filled in a cylinder at 300 K . Calculate the temperature upto which it should be heated so that its volume becomes of its initial volume.

Q16. Plot a graph between internal energy $U$ and Temperature $(T)$ of an ideal gas.
Q17. Why gases at high pressure and low temperature show large deviation from ideal gas behaviour?

Q18. What is an isothermal process? Give essential conditions for an isothermal process to take place.

Q19. Why is cooking difficult on hills?
Q20. Wings of an aeroplane helps it to rise high against gravity.Explain.

## CHEMISTRY

Q1. Amongst the following which one has the maximum boiling point and why?
n-Pentane, iso-pentane, neo-pentane
Q2. What is the number of $\sigma$ and $\pi$ bonds in But-3-en-1-yne?
Q3. Action of acetylene on dilute $\mathrm{H}_{2} \mathrm{SO}_{4} /$ dil. $\mathrm{HgSO}_{4}$ gives $\qquad$ .
Q4. An alkene A on ozonolysis gives a mixture of ethanal and pentan-3-one. Write IUPAC name of element.
Q5. The nitro group in the benzene nucleus is $\qquad$ directing. It $\qquad$ the reactivity of the benzene ring.
Q6. (i) Give a chemical test to distinguish between
a) ethyne and ethene
b) ethene and ethyne
(ii) Melting point of cis-But-2-ene is lower than that of trans-But-2-ene. Give reason.

Q7. Complete the following reactions:

## $\mathrm{CH}_{3} \mathrm{CH}_{2} \mathrm{Br}$

$\mathrm{CH}_{3} \mathrm{CH}=\mathrm{CH}_{2}+\mathrm{O}_{3} \xrightarrow{\mathrm{Zn} / \mathrm{H}_{2} \mathrm{O}}$
$\mathrm{CH}_{2}=\mathrm{CH}_{2}+\mathrm{H}_{2} \mathrm{O}+[\mathrm{O}] \xrightarrow{\text { Dil. } \mathrm{KMnO}_{4}}$
Q8. (i) What are the conditions for a compound/species to be aromatic according to Huckel's rule?
(ii) How will you convert Benzene to acetophenone?

Q9. (i) An alkene 'A' of molecular mass ' 28 u ' on treatment with bromine gives a product ' B '. The Compound ' B ' on further dehalogenation with zinc gives back 'A'. Give the structures of ' A ' and ' B ' and also the sequence of reactions.
(ii) How can we convert ethyne into benzene?
$\left.\mathrm{HOCH}_{2} \mathrm{CH}_{2} \mathrm{CH}_{2} \mathrm{CH}\left(\mathrm{CH}_{3}\right) \mathrm{CH}(\mathrm{CH})_{3}\right) \mathrm{COOH}$
Q10. Write bond line formula for the following compound:
Q11.The central atom of compound $\mathrm{CH}_{2}=\mathrm{C}=\mathrm{CH}_{2}$ is $\qquad$ hybridized.
Q12.Differentiate between inductive and electromeric effect.
Q13. Draw the resonating structures of
(a) Phenol
(b) Benzaldehyde
(c) Chlorobenzene
(d) Nitro benzene

Q14. Distinguish between position isomerism and functional isomerism.
Q15. Explain the following name reactions with an example:
(a) Wurtz reaction
(b) Decarboxylation reaction
(c) Kolbe's electrolytic reaction.

Q16. Write the mechanisms of the five basic reactions of benzene.
(hint: electrophilic substitution reaction)
Q17. Chlorobenzene is formed by reaction of chlorine with benzene in the presence of $\mathrm{AlCl}_{3}$. Which of the following species attacks the benzene ring in this reaction?
(a) $\mathrm{Cl}^{-}$
(b) $\mathrm{Cl}^{+}$
(c) $\mathrm{AlCl}_{3}$
(d) $\left[\mathrm{AICl}_{4}\right]^{-}$

Q18. What happens when benzene reacts with chlorine
(a) in the presence of an iron catalyst?
(b) the presence of sunlight?

Q19. Write structural formulae for compounds named as-
(a) 1-Bromoheptane
(b) 5-Bromoheptanoic acid

Q20. Why does $\mathrm{SO}_{3}$ act as an electrophile?

## BIOLOGY

Q1. Differentiate between karyokinesis \& cytokinesis.
Q2. What are the 4 stages during karyokinesis?
Q3. Why is the colour of the leaf kept in the dark frequently yellow or pale green? Which pigment do you think is more stable?

Q4. How can you identify a plant externally, whether its C3 or C4?
Q5. What are respiratory substrates?
Q6. What are the assumptions made during the calculation of net gain of ATP?
Q7. Why is abscisic acid known as stress hormone?
Q8. What would happen if GA3 is applied to rice seedlings?
Q9. Define vital capacity.
Q10. What is the primary site of exchange of gases in our body?
Q11. Cigarette smoking cause Emphysema. Give reason.

Q12. State different modes of $\mathrm{CO}_{2}$ transport in blood.
Q13. What happens to the respiratory process in a man going up a hill?
Q14. State the volume of air remaining in the lung after a normal breathing.
Q15. Find out the tidal volume for a healthy human in an hour.

Q16. Name the components of the formed elements in the blood.
Q17. Why do we consider blood as a connective tissue?
Q18. What is the significance of double circulation in human body?
Q19. Explain the consequences of a situation in which blood does not coagulate.

Q20. Differentiate between plasma and serum.

## COMPUTER SCIENCE

Python Programming:
Complete the Practical file with atleast 25 Programs (10-Python Fundamentals and Flow of Control, 15-Lists, Strings and Dictionaries) done in the classroom.

You can also pick any from the list given below:

1. Input a welcome message and display it.
2. Input two numbers and display the larger / smaller number.
3. Input three numbers and display the largest / smallest number.
4. Generate the following patterns using nested loop

| Pattern-1 | Pattern-2 |  |
| :--- | :--- | :--- |
| $*$ | 12345 | Pattern-3 |
| $* *$ | 1234 | AB |
| $* * *$ | 123 | ABC |
| $* * * *$ | 12 | ABCD |
| $* * * * *$ | ABCDE |  |

5. Write a program to input the value of $x$ and $n$ and print the sum of the following series:
$1+x+x^{2}+x^{3}+x^{4} \ldots \ldots \ldots . . x^{n}$
$1-x+x^{2}-x^{3}+x^{4} \ldots \ldots \ldots x^{n}$
$x-\frac{x^{2}}{2}+\frac{x^{3}}{3}-\frac{x^{4}}{4} \cdots \cdots \cdots \cdots \cdots \frac{x}{n}_{n}^{n}$
$x+\frac{x^{2}}{2!}-\frac{x^{3}}{3!}+\frac{x^{4}}{4!} \cdots \cdots \cdots \cdots \cdots \frac{x^{n}}{n!}$
6. Determine whether a number is a perfect number, an armstrong number or a palindrome.
7. Input a number and check if the number is a prime or composite number.
8. Display the terms of a Fibonacci series.
9. Compute the greatest common divisor and least common multiple of two integers.
10. Count and display the number of vowels, consonants, uppercase, lowercase characters in string.
11. Input a string and determine whether it is a palindrome or not; convert the case of characters in string
12. Find the largest/smallest number in a list/tuple.
13. Input a list of numbers and swap elements at the even location with the elements at the odd location.
14. Input a list/tuple of elements, search for a given element in the list/tuple.
15. Input a list of numbers and find the smallest and largest number from the list.

## Project:

The aim of the class project is to create something that is tangible and useful using Python Programming language. This should be done in groups of two to three students, the aim here is to find a real world problem that is worthwhile to solve.

Students can be extremely creative here and are urged to explore the resources available at their disposal such as textbooks and web. They can use a wide variety of Python libraries to create user friendly applications such as games, software for their school, software for their disabled fellow students, and mobile applications, of course to do some of these projects, some additional learning is required; this should be encouraged. Students should know how to teach themselves.

The students should be sensitized to avoid plagiarism and violations of copyright issues while working on projects. Teachers should take necessary measures for this.

## INFORMATICS PRACTICES

## Database Concepts:-

1. Make a presentation on the topic Computer Fundamentals (minimum 20 slides) What do you mean by a Database Management System?
2. What do you mean by Relational database?
3. What is the Primary Key?
4. What do you understand by the terms: Degree and Cardinality of a relation in Relational Database?
5. Write a MySql command that will be used to show all the databases which are already created inMySql.
6. 

An organisation wants to create a database EMPDEPENDENT to maintain following details about its employees and their dependent.

EMPLOYEE(AadharNumber, Name, Address, Department,EmployeeID)

DEPENDENT(EmployeeID, DependentName, Relationship)
a) Name the attributes of EMPLOYEE, which can be used as candidate keys.
b) The company wants to retrieve details of dependent of a particular employee. Name the tables and the key which are required to retrieve this detail.
c) What is the degree of EMPLOYEE and DEPENDENT relation?
7. In a multiplex, movies are screened in different auditoriums. One movie can be shown in more than one auditorium. In order to maintain the record of movies, the multiplex maintains a relational database consisting of two relations viz. MOVIE and AUDI respectively as shown below:

Movie(Movie ID, MovieName, ReleaseDate)
Audi (AudiNo, Movie_ID, Seats, ScreenType, TicketPrice)
a) Is it correct to assign Movie_ID as the primary key in the MOVIE relation? If no, then suggest an appropriate primary key.
b) Is it correct to assign AudiNo as the primary key in the AUDI relation? If no, then suggest appropriate primary key.
c) Is there any foreign key in any of these relations?
8.

| Student Project Database |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Table: STUDENT |  |  |  |  |  |  |
| Roll No | Name | Class | Section | Registration_II |  |  |
| 11 | Mohan | XI | 1 | IP-101-15 |  |  |
| 12 | Sohan | XI | 2 | IP-104-15 |  |  |
| 21 | John | XII | 1 | CS-103-14 | Table: PROJECT ASSIGNED |  |
| 22 | Meena | XII | 2 | CS-101-14 |  |  |
| 23 | Juhi | XII | 2 | CS-101-10 | Registration_ | Projectivo |
|  |  |  |  | CS-101-10 | IP-101-15 | 101 |
| Table: PROJECT |  |  |  |  | IP-104-15 | 103 |
| Project | PName |  |  | SubmissionDate | CS-103-14 | 102 |
| 101 | Airline Database |  |  | 12/01/2018 | CS-101-14 | 105 |
| 102 | Library Database |  |  | 12/01/2018 | CS-101-10 | 104 |
| 103 | Employee Database |  |  | 15/01/2018 |  |  |
| 104 | Student Database |  |  | 12/01/2018 |  |  |
| 105 | Inventory Database |  |  | 15/01/2018 |  |  |
| 106 | Railway Database |  |  | 15/01/2018 |  |  |

For the above given database STUDENT-PROJECT, answer the following:
a) Name primary key of each table.
b) Find foreign key(s) in table PROJECT-ASSIGNED.
c) Is there any alternate key in table STUDENT? Give justification for your answer.
d) Can a user assign duplicate value to the field RollNo of STUDENT table? Jusify.
9. For the above given database STUDENT-PROJECT, can we perform the following operations?
a) Insert a student record with missing roll number value.
b) Insert a student record with missing registration number value.
c) Insert a project detail without submission-date.
d) Insert a record with registration ID IP-101-19 and ProjectNo 206 in table PROJECT-ASSIGNED.
10. School uniform is available at $\mathrm{M} / \mathrm{s}$ Sheetal Private Limited. They have maintained SCHOOL_UNIFORM Database with two relations viz. UNIFORM and COST. The following figure shows database schema and its state.

| School Uniform Database |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Attributes and Constraints |  |  |  | Table: |  |  |
|  |  |  |  | UCode | Size | cost Price |
| Table: UNIFORM |  |  |  | 1 | M | 500 |
| Attribute | UCode | UName | - | 1 | L | 580 |
| Constraints | Primary Key | Not Null |  | 1 | XL | 620 |
| Table: COST |  |  |  | 2 | M | 810 |
|  |  |  |  | 2 | L | 890 |
| Attribute | UCode |  |  | Size | Price | 2 | XL | 940 |
| Constraints | Composite Primary Key |  | $>0$ | 3 | M | 770 |
| Table: UNIFORM |  |  |  | 3 | L | 830 |
|  |  |  |  | 3 | XL | 910 |
| UCode | UName | UColor |  | 4 | S | 150 |
| 1 | Shirt | White |  | 4 | L | 170 |
| 2 | Pant | Grey |  | 5 | S | 180 |
| 3 | Skirt | Grey |  | 5 | L | 210 |
| 4 | Tie | Blue |  | 6 | M | 110 |
| 5 | Socks | Blue |  | 6 | L | 140 |
| 6 | Belt | Blue |  | 6 | XL | 160 |

a) Can they insert the following tuples to the UNIFORM Relation? Give reasons in support of your answer.
i) 7, Handkerchief, NULL
ii) 4, Ribbon, Red
iii) 8, NULL, White
b) Can they insert the following tuples to the COST Relation? Give reasons in support of your answer.
i) $7, \mathrm{~S}, 0$
ii) 9, XL, 100

## Python Programming:-

Complete the Practical file with atleast 25 Programs (10-Python Fundamentals and Flow of Control, 15- List Manipulation and Dictionary Manipulation) done in the classroom.

You can also pick any from the list given below:

1. To find the largest and smallest numbers in a list.
2. To find the third largest/smallest number in a list.
3. To find the sum of squares of the first 100 natural numbers.
4. To count the number of vowels in the user entered string.
5. To print the words starting with an alphabet in a user entered string.
6. To print the number of occurrences of a given alphabet in each string.
7. Create a dictionary to store names of states and their capitals.
8. Create a dictionary of students to store names and marks obtained in 5 subjects.
9. To print the highest and lowest values in the dictionary.
10. Write a program to convert a number entered by the user into its corresponding number in words. for example if the input is 876 then the output should be 'Eight Seven Six'.
11. To print the first ' $n$ ' multiples of a given number.

## PSYCHOLOGY

## Objective Questions

Q1- Who assumed that human motives are arranged in an exceedingly hierarchy of potency

Q2- Feeling of excitement, even satisfaction kind of things are found in which stage of creative thinking?

Q3- Short term memory can hold information for how much time?
Q4- The phenomenon of responding similarly to similar stimuli is known as
Q5- The approximate age of sensorimotor stage is-
Q6- Who made contributions in classical conditioning?

## Very Short Answer type questions

Q7- Explain cognitive learning.
Q8- Define biological and psychosocial motives
Q9- What are proactive and retroactive interferences

Q10-Explain the nature of creative thinking
Q11- Explain the incubation stage of creative thinking

## Short Answer Type Questions

Q12- How do the needs for achievement and power influence the behaviour of adolescents?

Q13- Explain the phases of skill learning
Q14- How does forgetting take place? Explain with the help of trace decay and interference theory

Q15- Differentiate between divergent and convergent thinking
Q16- Explain how information from short term memory enters into long term memory.
Q17- Emotion is a subjective feeling and the experience of emotions varies from person to person. Discuss

## Long Answer Type Questions

Q18- Explain the contributions of B.F. Skinner in operant conditioning.
Q19- Explain the different types of long term memory
Q20- Differentiate between positive and negative emotions. Write some strategies to manage negative emotions.

## ECONOMICS

Q1. The vertical distance between TVC and TC is equal to $\qquad$ .

Q2 MC is less than average variable cost, when marginal cost is rising and average variable cost is falling.(True/False).

Q3 The average fixed cost at 4 units of output is 20 . Average variable cost at 5 units of output is 40 . Average cost of producing 5 units is
(a) 20
(b) 40
(c) 56
(d) 60

Q4. Suppose total revenue is rising at a constant rate as more and more units of a commodity are sold, marginal revenue would be
(b) equal to average revenue
(a) greater than average revenue
(c) less than average revenue
(d) rising

Q5 Explain the relationship between total cost, total fixed cost and total variable cost.
Q6 What is Average Fixed Cost of a firm ? Why is an Average Fixed Cost Curve a rectangular Hyperbola? Explain with help of a diagram.

Q7 What is the behaviour of average variable cost as output is increased? Why is it so ? Q8 Why MC curve U shaped? Explain Relationship between AC and MC. Q9 Calculate TC and AVC.

| Output (Units) | Average Fixed Cost $(₹)$ | Marginal Cost (₹) |
| :---: | :---: | :---: |
| 1 | 60 | 32 |
| 2 | 30 | 30 |
| 3 | 20 | 28 |
| 4 | 15 | 30 |
| 5 | 12 | 35 |
| 6 | 10 | 43 |

Q10 Complete the table.

| Output <br> (Units) | Average Revenue <br> (र) | Marginal Revenue <br> (₹) | Total Revenue <br> (₹) |
| :---: | :---: | :---: | :---: |
| 1 | - | 15 | - |
| 2 | - | - | 26 |
| 3 | 11 | - | - |
| 4 | - | 3 | - |

Q11 When AR is falling, MR will be $\qquad$ than AR.

Q12. AR curve is horizontal straight line, implies a constant price for a firm at all level of output.(True/False).
Q. 13 A firm is able to sell any quantity of a good at a given price. The firm's marginal revenue will be
(a) greater than average revenue
(b) equal to average revenue
(c) less than average revenue
(d) zero

Q14. Draw in a single diagram, the average revenue and marginal revenue curves of a firm which can sell any quantity of the good at a given price. Explain.

Q15 Draw average revenue and marginal revenue curves in a single diagram of a firm which can sell more units of a good only by lowering the price of that good. Explain.

Q16. What happens to AR when
(a) MR is greater than $A R$ ?
(b) $M R$ is equal to $A R$ ?
(c) MR is less than AR?

Q17 Explain the relationship between MR and AR in perfect competition.
Q18 Why AR = Price? Explain.
Q19 Calculate and draw AR and MR from the following table:

| Price (₹) | Units Sold | Total Revenue (₹) |
| :---: | :---: | :---: |
| 10 | 1 | 10 |
| 10 | 2 | 20 |
| 10 | 3 | 30 |
| 10 | 4 | 40 |

Q20 Calculate and draw AR and MR from the following table:

| Price (₹) | Output (Units) | Total Revenue (₹) |
| :---: | :---: | :---: |
| 7 | 1 | 7 |
| 5 | 2 | 10 |
| 3 | 3 | 9 |
| 1 | 4 | 4 |

## POLITICAL SCIENCE

NOTE: Do the following questions in your fair notebook.

## Chapter: Elections And Democracy in India

Q1. Distinguish between direct and indirect democracy.
Q2. Explain FPTP. Why did India adopt it?
Q3. Explain the powers and functions of election commission.
Q4. What is NOTA button on the voting machine?
Q5. What measures have been taken to ensure free and fair elections in India?
Q6. Discuss a few measures concerning electoral reforms in India.

## Chapter: The Judiciary

Q7. Why do we need an independent judiciary?
Q8. How are the Chief Justice and other judges of the Supreme Court appointed in India?

Q9. How has judicial activism helped in expanding the scope of our fundamental rights?
Q10. Mention those provision of the constitution that ensure independence and impartiality of the judiciary in India.

Q11. Explain the jurisdiction and functions of Supreme Court in India.
Q12. What is meant by judicial review. Discuss the Supreme Court's power of judicial review.

## GEOGRAPHY

Q.1. Differentiate between Perihelion and Aphelion.
Q.2. Differentiate between Continental Shelf and Continental Slope.
Q.3. When was National Forest policy adopted in India?
Q.4.Explain different type of Ocean Current on the basis of depth and temperature.
Q.5. Which forest can develop in sweet as well as saline water?
Q.6. Write down the important features of Thorn forest.
Q.7. What do you mean by latent heat of Vaporization?
Q.8. Explain about condensation in detail.
Q.9.The average temperature of water on Ocean floor keeps on falling from Equator to Pole systematically. Explain.
Q.10. How can people's participation be effective in conserving forests and wildlife?
Q.11. Which layer transmits the radio waves?
Q.12. What percent of sunrays that is received by the upper layer of the atmosphere reach the earth surface?
Q. 13 At what height are cumulus clouds formed?
Q. 14 Why do the jet aircraft fly through the Lower Stratosphere?
Q. 15 The temperature at which Saturation occurs in a given sample of air is known as what?
Q. 16 The process of heating up of land through horizontal movement of heat is called
$\qquad$ -
Q. 17 Distinguish between absolute humidity and relative humidity.
Q. 18 When it is 12:00 noon in Greenwich then what will be the time at New York which is located at $74^{\circ}$ West.
Q. 19 Explain the factors affecting insulation at the surface of the earth.
Q. 20 Convert the given Statement of Scale into Representation Factor (R.F.):

5 Centimetre(cm) represents 10 Kilometre(km).

## ACCOUNTANCY

1. Record the following transactions in Purchase Book, Sales Book, Purchase Returns Book \&
Sales Returns Book of Tushar General Stores for the month of May 2022.
May 01 - Jaya invoiced goods of ₹ 15,000 at 9\% trade discount as per their Invoice no. 231.
May 13 - Purchased computer from IBM Computers worth ₹ 55,000 as per their Invoice no 863.
May 23 - Invoiced goods to Priya for ₹ 20,000 at 4 \% trade discount as per Invoice no. 341.

May 25 - Sold goods to Sneha for ₹ 14,500 at $10 \%$ trade discount as per Invoice no. 342.
May 27 - Sold goods to Anita for ₹ 26,650 as per Invoice no. 343 and purchased goods from her for ₹ 12,250 as per their Invoice no. 545 .
May 29 - Satya supplied goods to us of ₹ 2,450 Invoice no. 630.
May 30 - Returned goods worth ₹ 460 to Satya and issued Debit Note No. 95.
2. Prepare Bank Reconciliation Statement from the following particulars on 31st July 2022
(a) Balance as per Pass Book ₹ 500 .
(b) Three cheque for ₹ 60 , ₹ 39.37 , and ₹ 15.25 issued in July 2022 were presented her payment to the bank in August 2022.
(c) Two cheques of ₹ 50 and ₹ 65 sent to the bank for collection where not entered in the Pass book by July 31st, 2022.
(d) The Bank charged ₹ 46 for its commission and allowed interest ₹ 10 which were not entered in the bank account.
3. Prepare Bank Reconciliation Statement from the following particulars on 31st December 2021.Cash book showed a balance of ₹ 15,000 on 31st December 2021. On comparing the same with the balance of Pass Book it was revealed that:
(a) A cheque of $₹ 2,000$ issued in the month of Dec. 2021 has not been presented for payment to the bank.
(b) The customer deposited cheque worth ₹ 3,000 but they have not been collected by the bank.
(c) The bank had allowed ₹ 200 as interest.
(d) Bank had charged ₹ 20 as commission for his service.
4. Trial Balance of ABC Ltd. doesn't meet; it showed an excess credit ₹ 20,000 . They put the difference to a suspense account. The errors that they located were:
(i) Sales return book overcast by ₹ 2,000 .
(ii) Purchases book was undercast by ₹ 1200 .
(iii) In the sales book total of page no. 4 was carried forward to page 5 as ₹ 2,000 instead of ₹ 2,400 and total of page 8 was carried forward to page 9 as ₹ 11,200 instead of ₹ 10,000 .
(iv) Goods returned to Ram ₹ 2,000 were recorded through sales book.
(v) Credit purchases from M \& Co. ₹ 16,000 were recorded through sales books.
(vi) Credit purchases from S \& Co. ₹ 10,000 were recorded through sales books. However, S \& Co.were correctly credited.
(vii) Salary paid ₹ 4,000 was debited to employee's personal account. Pass rectified entries and prepare Suspense Account.
5. Rectify the following errors by passing the rectifying entries using Suspense A/c.
(a) Credit Sale of ₹ 2,000 to Rohan was posted to Raman's A/c.
(b) Sales Return book is under cast by ₹ 1,000
(c) Paid ₹ 20,000 as wages for construction of building debited to wages $\mathrm{A} / \mathrm{c} ₹$ 20,000
(d) ₹ 1,000 paid in cash for a typewriter was charged to office expense account.
6. M/s Samarth Enterprises acquired a printing machine for ₹ 40,000 on July 01, 2019 and spent ₹ 5,000 on its transport and installation. Another machine for ₹ 35,000 was purchased on January 01, 2021. Depreciation is charged at the rate of $20 \%$ on written down value. Prepare Printing Machine account.
7. Surya Ltd. purchased a vehicle for $₹ 4,00,000$. After 4 years its salvage value is estimated at ₹ 40,000 . To find out the amount of depreciation to be charged every year based on straight line basis, and show as to how the vehicle account would appear for four years assuming it is sold for ₹ 50,000 at the end when
(a) depreciation is charged to asset account; and
(b) provision for depreciation account is maintained.
8. Credit purchases of goods are recorded in $\qquad$ .
9. Transactions which cannot be recorded in other subsidiary books are recorded in
$\qquad$ .
10. Goods destroyed by fire will be recorded in $\qquad$ .
11. Weekly/ monthly total of purchases book is posted to $\qquad$ side of

## Account.

12. A second hand motor car was purchased from Veer Brothers for Rs.10,000. It is recorded in
$\qquad$ book.
13. Bank Charges debited in pass book are recorded on the $\qquad$ side of Cash Book in Bank Column.
14. Cheque issued and debited in the Pass Book but omitted to be recorded in Cash Book would $\qquad$ the Cash book Balance.
15. Bank Reconciliation Statement is prepared to reconcile $\qquad$ and
$\qquad$ balances.
16. Depreciation is the $\qquad$ in the value of fixed assets.
17. When Provision for depreciation account is created depreciation is charged to
$\qquad$ _.
18. Annual depreciation of an asset is Rs.25,000 and the cost of acquiring an asset is Rs. $5,00,000$. So the rate of depreciation would be $\qquad$ \% p.a
19. The existence and the amount of $\qquad$ reserve is not disclosed in the Balance Sheet.
20. The amount of reserve when invested in outside securities is termed as
$\qquad$ -

## HISTORY

Lesson -6 Three Orders
Very Short Questions (1 Mark each)

1. Who were called Friars?
2. Where were two well known monasteries build?

Short Answer Type Questions (3 marks)
3. What does seigneur/ lord mean? "Nobility in France enjoyed a privileged status" elaborate.
4. Describe the life of Christian monks in a monastery during the medieval Europe.

Long Answer Questions (8 marks)
5. "The king was no longer at the apex of the pyramid where loyalty has been the matter of personal dependency and trust. He was now at the center of an elaborate courtier society and a network of patron -client relationships". Elaborate the statement in context to the new political order in Medieval Europe.

Lesson - 7
Changing Cultural Traditions
VERY SHORT ANSWER QUESTIONS (1 MARK EACH)

1. Who is the creator of painting "The
2. How Fedle describe 'Marchisa Isabela the Daste'?
3. Write the characteristics of 'Humanitarian Views'?
4. Write the main objectives of 'Crusade Movement'?
5. Who was 'Martin Luther'. Why he started revolution against Pope?

Long Answer Questions (8 marks)
6. What were the major changes and specialties that occured in Medieval European Civilization during 14th and 17th century?
7. Why did the conflict rise in the Christianity and what were its outcomes?

Lesson - 10
Displacing Indigenous Peoples
Multiple Choice Questions (1MARKS Each)

1. For whom did the word settler use in Ireland, New Zealand and

Australia-
(a) Dutch (b) British
(c) French (d) Portuguese
2. What does the Latin word Austral mean.:
(a) ape (b) village
(c) southern (d) sea

Short Answer Type Questions (3 marks)
3. What did the Frontier mean to the Americans?
4. What are the different names given for the native people of the New World' by the Europeans?
5. How did the natives of North America treat the European traders in the 17 th century?

Long answer type Questions (8 Marks)
6. What do you know about Gold rush? Explain in detail the development of industrialisation in America due to Gold rush.
7. Why were the natives of America forced to move out of their land? What were the causes responsible for this displacement?

## Lesson - 11

Paths to Modernisation
Multiple Choice Questions (1 Marks Each)

1. Which among the following is the third longest river in the world
(a) Yangtze (b) Huang He
(c) Pearl (d) Chang Jiang
2. Which among the following is the the dominant ethnic group of China
(a) Hui (b) Manchu
(c) Uighur (d) Han
3. Which among the following is not a string of Japanese Islands
(a) Honshu (b) Kyushu
(c) Shikoku (d) Okinawan
4. Which of the following is the capital of Japan
(a) Shanghai (b) Tokyo
(c) Hokado (d) Okinawan
5. Japanese were influenced by the legal ideas of which of the following countries
(a) Britain (b) Germany
(c) China (d) France

## BUSINESS STUDIES

1. State the three stages in the formation of a company.
2. Define the formation of the company.
3. How many members should sign a memorandum of association in a public company?
4. What do you mean by Technical feasibility?
5. What do you mean by Economic feasibility?
6. What do you mean by promoter?
7. What is business finance?
8. List sources of raising long-term and short-term finance.
9. What is the difference between GDR and ADR?
10. What advantages does the issue of debentures provide over the issue of equity shares?
11. State the merits of retained earnings as methods of business finance.
12. State the merits of public deposits as methods of business finance.
13. What is commercial paper?
14. While starting a business which industry use local and family labour?
15. Small Scale Industries is threatened by global enterprises in which areas?
16. Give two advantages of small scale industries in trade export in India.
17. Mention five characteristics of cottage industries.
18. What are the major things that National Small Industries Corporation NSIC provide?
19. Give two characteristics of NABARD
20. Mention two problems of small industries.
