



DARSHAN ACADEMY, DELHI

SUMMER ASSIGNMENT

Session: 2024-25

Grade: XI

As we embark on our summer holidays, it's essential to keep the learning momentum alive, even amidst relaxation and leisure. This homework encourages independent research, critical thinking, and analytical skills, and prepares students for the challenges ahead. The tasks included in this summer holiday homework are designed to engage students actively, sparking their curiosity and nurturing their intellectual growth. As students immerse themselves in these activities, they will not only enrich their knowledge but also develop essential skills that will serve them well beyond the confines of the classroom, fostering a lifelong love for learning and exploration.



DARSHAN ACADEMY

SUMMER ASSIGNMENT 2024-25

GRADE XI, SUBJECT: – ENGLISH

Note : Task I, III & IV kindly do it in Assignment notebook.

TASK – I

Literature Analysis and Creative Writing Assignment

Objective: To foster a sense of responsibility and independence by requiring students to manage their time, set goals. To enhance students' research skills, critical thinking abilities, and creativity.

- 1) Choose a theme from Hornbill or Snapshots you studied in class (e.g., love, power, identity).
- 2) Conduct research to explore different perspectives and interpretations of your chosen theme.
- 3) Write a creative piece (e.g., short story, poem, essay) that reflects your understanding of the theme.
- 4) Include a brief analysis in any form explaining how your creative work relates to the theme and the literary text it was inspired by.
- 5) Set personal goals and deadlines to manage your time effectively during vacation.
- 6) Submit your assignment along with a reflection on the process of creating it, highlighting any challenges faced and lessons learned.
- 7) Discuss with your parents also your chosen theme and creative work to get their opinion and feedback.

Note for students: *This assignment aims to foster your love for learning and self-improvement by encouraging you to explore literature beyond the confines of the classroom and to connect it to your own experiences and perspectives. Enjoy your literary ride!!*

TASK – II

Family Book Club Project

Objective: To enhance academic skills in reading, writing, research, critical thinking, and problem-solving while fostering creativity and independent learning.

- 1) Select a novel or play from Hornbill or Snapshots eg: Mother's Day or any other story or play or a book of literary significance.
- 2) Divide the book into manageable sections for weekly reading assignments.

- 3) Each week, you with your parents will read the assigned section of the book.
- 4) After reading, your family may come together to discuss the themes, characters, plot developments, and any questions or insights you all have.
- 5) Encourage each of your family member to share their perspectives and interpretations of the text.
- 6) Throughout the project, you will keep a journal to record your thoughts, reflections, and discussion points from each reading session.
- 7) At the end of the project, the family can host a mini-book club meeting where you all can share your overall impressions of the book and engage in a deeper discussion.

Note for students: This task will promote family bonding and shared learning experiences at your home. It will also encourage your critical thinking and analytical skills through literary analysis. While fostering communication and discussion skills within your family, it will also provide an opportunity for your parents to actively participate in your education and support your learning journey. Happy enriching learning experience at home!!

TASK – III

Objective: To encourage students to delve deeper into the themes and characters of a selected literary work, and to express their thoughts creatively through writing.

- 1) Select a prose or poem of your choice from Hornbill or Snapshots.
- 2) Read the selected text carefully and analyse its themes, characters, literary devices, and overall message.
3. Write a reflective write up on it discussing your interpretation of the text, its relevance to contemporary society, and personal connections you have made.
4. Create a visual representation (such as a poster, infographic, or artwork) that captures the essence of the text and your analysis.
5. Set a timeline for completing the assignment, including deadlines for each step (reading, analysis, writing, and visual representation).
6. Submit your completed assignment after the vacation.

TASK – IV

Objective: To deepen their understanding of the literary work and also to develop their critical thinking skills, creative streak, and ability to express themselves effectively through writing in a free style.

Pick any three prompts from the given list and write in your own words in 100-150 words.



SUMMER WRITING

Prompts



<p>If you could be on any game show, which would it be? Tell what happens when you're on the show.</p>	<p>Write about a time you went on vacation.</p>	<p>What would you do if someone gave you \$1 million?</p>	<p>Name one thing you like about yourself and why you like it.</p>	<p>Imagine you were twenty feet tall. Describe what life would be like.</p>
<p>Which character from a book would you most like to meet and why?</p>	<p>What would you do if you woke up one morning to find yourself invisible?</p>	<p>What would be your ideal job when you grow up? Explain.</p>	<p>Describe someone who is a hero to you and explain why.</p>	<p>How old were you 5 years ago? Describe some things you can do now that you could not do then.</p>
<p>What if you were named principal for the week? What would you do?</p>	<p>Write a short biography of yourself.</p>	<p>Write directions for how to make a banana split.</p>	<p>What would you do if you could travel into the past?</p>	<p>Imagine you woke up and saw a dinosaur in your backyard. Write a story telling what you see and do.</p>
<p>What is your favorite summer activity?</p>	<p>If you could do something that you never have done before, what would it be?</p>	<p>Would you want to visit the moon? Why or why not?</p>	<p>Write out the best or the worst day of your life.</p>	<p>Write about going back to school after summer break.</p>

Note for students: These assignments aim to encourage your creative expression and will prepare you to engage in writing in a meaningful and independent way. Happy vacation!!



DARSHAN ACADEMY

SUMMER ASSIGNMENT 2024-25

GRADE XI, SUBJECT: – CHEMISTRY

Dear Students,

As we embark on our summer holidays, it's essential to keep the learning momentum alive, even amidst the relaxation and leisure. For the students of Class XI in Chemistry, this holiday homework serves as an opportunity to delve deeper into the fascinating realms of physical and inorganic chemistry.

Through a carefully curated set of assignments, you all will –

- Explore various concepts
- Analyse various applications in everyday life events
- Understand chemical phenomena
- Comprehend numerical and
- Grasp various atomic principles.

This homework encourages independent research, critical thinking, and analytical skills, preparing students for the challenges ahead. The tasks included in this summer holiday homework are designed to engage students actively, sparking their curiosity and nurturing their intellectual growth. As students immerse themselves in these activities, they will not only enrich their knowledge of Chemistry but also develop essential skills that will serve them well beyond the confines of the classroom, fostering a lifelong love for learning and exploration.

Some basic Concepts of Chemistry

1. Calculate the mass percent of the calcium, phosphorus and oxygen in the given calcium phosphate $\text{Ca}_3(\text{PO}_4)_2$
2. The density of 3 molal solutions of given NaOH is 1.110 g mL^{-1} . Calculate the required molarity of the solution.
3. What is the difference between the term molality and molarity?
4. What would be the mass of one atom of given C-12 in grams?
5. The reactant completely consumed in the reaction is called the limiting reagent.
In the reaction $2\text{A} + 4\text{B} \rightarrow 3\text{C} + 4\text{D}$, if 5 moles of A react with 6 moles of B, then
 - (i) Which is the limiting reagent?
 - (ii) calculate the amount of C formed?
6. The volume of the solution changes with a change in the temperature. Then, would the molality of the solution be affected by the temperature? Give the reason for your answer.
7. If 4 g of the NaOH dissolves in 36 g of H_2O , calculate the mole fraction of each component in the solution. Here, determines the molarity of the solution (specific gravity of solution is 1 g mL^{-1}).
8. Hydrogen gas is prepared in the laboratory by reacting the given diluted HCl with granulated zinc. The following reaction takes place.



Calculate the volume of the given hydrogen gas liberated at STP if 32.65 g of zinc reacts with HCl.

1 mol of the given gas occupies 22.7 L volume at STP;

atomic mass of the Zn = 65.3 u.

9. 45.4 L of dinitrogen, when reacted with 22.7 L of the given dioxygen and 45.4 L of the nitrous oxide, was formed. The reaction is given below as: $2\text{N}_2(\text{g}) + \text{O}_2(\text{g}) \rightarrow 2\text{N}_2\text{O}(\text{g})$

Which law obey for the following experiment? Write the statement of the given law.

10. Read the passage given below and answer the following questions:

The ideas underlying our modern understanding of thermodynamics and kinetic theory were developed during the nineteenth century. Central to these developments was the discovery that matter reacting chemically does not do so simply between equal masses of the samples involved. We now call the study of this phenomenon 'stoichiometry', defined as: 'the relationship between the amounts of substance that react together, and the products that are formed'. Another development during the nineteenth century that was central to our modern understanding of the chemical nature of matter was the observation by Avogadro that 'equal volumes of ideal or perfect gases, at the same temperature and pressure, contain the same number of particles, or molecules'. This is now known as Avogadro's law. It provides the motivation to formulate expressions for the quantity of a sample that reacts with another sample. The most notable example of such a formulation is the gram-molecule, which has been used to refer to both a unit and a quantity. (Reference: Milton Martin J. T. 2011A new definition for the mole based on the Avogadro constant: a journey from physics to chemistry Phil. Trans. R. Soc. A.3693993–4003).

The following questions are multiple choice questions. Choose the most appropriate answer:

- I. The concept of stoichiometry mentioned in the study is based on the

- (a) formation of chemical bonds.
- (b) amount of reactant and product involved in a chemical reaction.
- (c) idea of temperature and pressure required for the reaction to occur.
- (d) oxidation states of reactant and product involved.

II. How much gram-molecules of H_2O are produced on combustion of 32 g of methane in excess oxygen?

- (a) 72
- (b) 4
- (c) 2
- (d) 3

III. When an antacid tablet is used, $\text{Ca}(\text{OH})_2$ reacts with HCl in the stomach to form inert CaCl_2 and H_2O . If the molar mass of $\text{Ca}(\text{OH})_2$ is 75 g/mol, how many moles of HCl are required to fully react with 150 g of $\text{Ca}(\text{OH})_2$?

- (a) 4
- (b) 1
- (c) 8
- (d) 2

IV. What must be held constant when applying Avogadro's law?

- (a) pressure and temperature
- (b) volume and temperature
- (c) moles and temperature
- (d) pressure and volume

12. Which of the following is dependent of temperature?

- (a) Molarity
- (b) Molality
- (c) Mole fraction
- (d) Mass percentage

13. 2.4 g of NaOH dissolved in 100 ml solution. Molarity of the solution is

- (a) 1 M
- (b) 10 M
- (c) 0.1 M
- (d) 4 M

14. Which has the maximum number of molecules among the following?

- (a) 44g of CO_2
- (b) 44g of O_2
- (c) 8g of H_2
- (d) 64g of SO_2

15. 10 mol of Zn react with 10 mol of HCl . Calculate the number of moles of H_2 produced.

- (a) 5 mol
- (b) 10 mol
- (c) 20 mol
- (d) 2.5 mol

Structure of atom

1. Two particles A and B have wavelength $\lambda_A = 5 \times 10^{-10}$ m and $\lambda_B = 10 \times 10^{10}$ m. Find their frequency, wave number and energies. Which has more penetrating power and why ?
2. Arrange s, p and d sub-shells of a shell in the increasing order of effective nuclear charge (Z_{eff}) experienced by the electron present in them.
3. Show the distribution of electrons in an oxygen atom (atomic number 8) using an orbital diagram.
4. Nickel atom can lose two electrons to form Ni^{2+} ion. The atomic number of nickel is 28. From which orbital will nickel lose two electrons?
5. On the basis of Pauli's exclusion principle show that the maximum number of electrons in the M - shell ($n = 3$) of any individual atom is 18.

6. Wavelengths of different radiations are given below:

$$\lambda(A) = 300 \text{ nm}$$

$$\lambda(B) = 300 \mu\text{m}$$

$$\lambda(C) = 3 \text{ nm}$$

$$\lambda(D) = 30 \text{ \AA}$$

Arrange these radiations in the increasing order of their energies.

7. The Balmer series in the hydrogen spectrum corresponds to the transition from $n_1 = 2$ to $n_2 = 3, 4, \dots$. This series lies in the visible region. Calculate the wave number of the line associated with the transition in the Balmer series when the electron moves to $n = 4$ orbit. ($R_H = 109677 \text{ cm}^{-1}$)

8. According to de Broglie, the matter should exhibit dual behaviour, that is, both particle and wave like properties. However, a cricket ball of mass 100 g does not move like a wave when it is thrown by a bowler at a speed of 100 km/h. Calculate the wavelength of the ball and explain why it does not show wave nature.

9. Chlorophyll present in green leaves of plants absorbs light at 4.620×10^{14} Hz. Calculate the wavelength of radiation in nanometer. Which part of the electromagnetic spectrum does it belong to?

10. What is the difference between the terms orbit and orbital?

11. Table-tennis ball has a mass of 10 g and a speed of 90 m/s. If speed can be measured with an accuracy of 4% what will be the uncertainty in speed and position?

12. Match the quantum numbers with the information provided by these.

Quantum number Information provided

(i) Principal quantum number (a) orientation of the orbital

(ii) Azimuthal quantum number (b) energy and size of orbital

(iii) Magnetic quantum number (c) spin of electron

(iv) Spin quantum number (d) shape of the orbital

13. Assertion (A): All isotopes of a given element show the same type of chemical behaviour.

Reason (R): The chemical properties of an atom are controlled by the number of electrons in the atom.

14.Assertion (A): Black body is an ideal body that emits and absorbs radiation of all frequencies.

Reason (R): The frequency of radiation emitted by a body goes from a lower frequency to a higher frequency with an increase in temperature.

15.Assertion (A): It is impossible to determine the exact position and exact momentum of an electron simultaneously.

Reason (R): The path of an electron in an atom is clearly defined.

1.ART INTEGRATION ACTIVITY-USING SMART ART REPRESENT ANY ONE OF THE FOLLOWING:(ON A3 SIZE SHEET FOLLOWED BY LAMINATION)

1. Pauli Exclusion Principle
2. Aufbau Principle
3. Heisenberg Uncertainty Principle
4. Hund's Rule

2.MAKE A CHART SHOWING 3D EFFECT ON THE FOLLOWING TOPICS (ANY 1):-

- (a) Concentration Terms
- (b) Laws of chemical combination
- (c) Electronic configuration in terms of s,p,d,f (1-30)
- (d) Shapes of the orbitals
- (e) Spectrum and its types



DARSHAN ACADEMY

SUMMER ASSIGNMENT 2024-25

GRADE XI, SUBJECT: – ACCOUNTANCY

Commerce education helps students to learn how to manage money and investments. They can make smarter financial decisions. Students learn about accounting, taxes, and how to invest wisely which is important for their good life. Commerce seeks to fulfill the wants and needs of the people, it can lead to a higher standard of living. Through holiday homework Students can work independently, efficiently manage their time, and develop crucial study skills such as researching, critical thinking, and problem-solving. Accounting in the 21st Century incorporates the best of traditional accounting and fuses it with fit-for-purpose technology and practices of tomorrow. It's realizing accountants are uniquely positioned to act as your in-house financial counsel and simultaneously provide advisory expertise

ACTIVITY/PROJECT WORK

- Paste at least three bills on register. Write reason of keeping record of all bills by a business organization.
- Paste financial statements of any company. Give your comment about the performance of this company over a number of years by showing graphical representation.
- Make a video/PPT on any two accounting principles/concepts/basic terms etc where students will have to add his/her sound also for giving explanation.

Do following questions in a separate register

	Chapters: Introduction to Accounting, Basic accounting terms, Theory base of accounting & Accounting Equation
1	Which of the following will not be recorded in the books of account? (a) Sales of goods (b) Payment of salary (c) Quality of staff (d) Purchase of Goods
2	Which one of the following is not an objective of accounting? (a) To provide information about the assets, liabilities and capital of the enterprise. (b) To provide information about the private assets and liabilities of the proprietor. (c) To maintain records of the business (d) To provide information regarding the profit and loss of the enterprise.
3	The nature of accrued income is (a) revenue. (b) liability. (c) expenses.

	(d) asset.
4	<p>Sale is recognised as revenue</p> <p>(a) when the contract for sale is entered into.</p> <p>(b) at the point of sale or performance of service.</p> <p>(c) after the expiry of credit period allowed to debtors.</p> <p>(d) after the money collected from the customers.</p>
5	<p>Give one transaction for each of the following that will : -</p> <p>a] Increase an asset and Increase capital</p> <p>b} Decrease an asset and Decrease a Liabilities</p> <p>c} Increase an asset and decrease an asset</p> <p>d} Decrease the capital and Increase the Liabilities</p>
6	<p>Which of the following is the most relevant accounting information for taxation authorities?</p> <p>(a) Cash Balance of the firm</p> <p>(b) Book Value of the Fixed Assets</p> <p>(c) Credit Sales of the year</p> <p>(d) Profit generated during the year</p>
7	<p>Expenditure of revenue nature that gives benefit for more than one accounting period is categorised as</p> <p>(a) Capital Expenditure.</p> <p>(b) Revenue Expenditure.</p> <p>(c) Deferred Revenue Expenditure.</p> <p>(d) None of these</p>
8	<p>The revenue will be recognized when</p> <p>a) Received an order for the goods worth Rs.50,000 on 1st April'18</p> <p>b) Goods worth Rs. 50,000 is supplied to the customer on 10th Apr'18</p> <p>c) Received amount of Rs. 25,000 as from the customer on 15th Apr'18</p> <p>d) Balance amount is received on 25th Apr'18</p>
9	<p>i) According to cash basis the receipt or payment becomes due are ignored.</p> <p>ii) As per the accrual basis the revenue and costs are recognized when it occurred</p> <p>iii. Office Rent for the month of Dec'18 paid in Jan'19 is recorded in Jan'19.</p> <p>a) Option (i) and (ii) is the correct statement</p> <p>b) b) Option (i),(ii) and (iii) is the correct statement</p> <p>c) Option (i) and (iii) is the correct statement</p> <p>d) Option (ii) and (ii) is the correct statement</p>
10	<p>Calculate the value of the asset at the time of preparing final account that is purchased for Rs. 5,00,000 ,if the market value is Rs. 7,00,000 as per the cost concept.</p> <p>a) Rs. 5,00,000</p> <p>b) Rs. 7,00,000</p> <p>c) Rs.1,20,000</p> <p>d) Rs. 2,00,000</p>
11	<p>Who is the father of Accounting:</p> <p>(a) Luca Pacioli</p> <p>(b) Charles Babeje</p> <p>(c) Henry Fayol</p> <p>(d) F. W. Taylor</p>
12	<p>Business organization involves:</p> <p>(a) Social event</p>

	(b) Economic event (c) Welfare event (d) None of these
	(HOTS)
13	Calculate total assets if: Capital is Rs. 40,000 Revenue during the period is Rs. 50,000 Expenses during the period Rs. 40,000 Creditors are Rs. 25,000
14	Prepare an accounting equation on the basis of following transactions: i) started business with cash Rs.1,00,000 ii) purchased goods for cash Rs.20,000 and credit Rs. 30,000 iii) Sold goods for cash costing 10,000 and on credit costing 15,000 both at a profit of 20%.
15	On which side will the decrease in following accounts be recorded? a) cash b) bank overdraft c) outstanding salary d) outstanding rent e) prepaid insurance
16	Explain why capital is considered as an internal liability?
17	Explain various users of accounting information.
18	What is book keeping? How it is different from accounting?
19	Explain the following terms: a) Capital expenditure b) Revenue expenditure c) Business transaction d) Non-current Assets
20	Discuss the characteristics of accounting.
	Case study questions:
	<p>Read the following case study and answer questions</p> <p>Sam and Jay started with Cash 10,000 and Machinery 1,00,000. They decided to set up a production line for PPE kits for. the protection from Covid 19 virus. As their demand rose, they decided to buy one more piece of machinery. For the same, they took bank overdraft and purchased the machinery. The quality of the company's product was extremely high and therefore, it could develop a reputation for itself in the market and business was flourishing. After 1.5 years, their old machinery turned obsolete so they decided to sell the same. They sold it and got some cash proceeds. To further increase the brand presence among the concerned stakeholders, they decided to run advertisements from the cash proceeds of machinery sold. As more and more customers demanded their product, they decided to launch a discount for bulk purchases. The discount was not to be recorded in the books of accounts. This campaign was successful and they earned a lot of profits from the same.</p> <p>Q1. Which type of discount is being discussed in the last part of the passage?</p> <p>(a) Trade discount (b) Cash discount (c) Both (a) and (b) (d) Can't be determine</p> <p>Q2. Which asset is discussed in the line, "The quality of the company's product was very high and therefore, it could develop a reputation for itself in the market and business was</p>

flourishing”?

- (a) Tangible
- (b) Intangible
- (c) Current.
- (d) Both (a) and (c)

Q3. Which type of liability is discussed in the passage?

- (a) Non-current
- (b) Current
- (c) Both (a) and (b)
- (d) Can't be determined

Q4. What was the capital initially invested?

- (a) 10,000
- (b) 1,00,000
- (c) 1,10,000
- (d) Can't be determined

Q5. The passage involves capital receipts (apart from initial capital invested).

- (a) True
- (b) False

Ram and Shyam are two friends who both have just attended their first class of accountancy. The friends were intrigued by the different branches of accounting and their widespread application. Ram personally liked the branch of accounting in which fund flow statement and budgetary control is used and that branch helps in planning and controlling of operations. As the concept of accounting was further explored, they began discussing the different users of accounting. Ram said that he finds it interesting that even the employees demand information relating to business. Shyam said he finds more interesting the fact that even competitors want information on the relative strengths and weaknesses of the enterprise and for making comparisons, Shyam further said that even accounting helps owners to compare one year's costs, expenses, and sales with those of other years. However, they were quite shocked by the fact that the management-worker relations were not taken into consideration in the accounting. Meanwhile, Ram and Shyam had an argument at the end of the discussion. Ram was saying that accounting is an art whereas Shyam was saying that accounting is a science. Their teacher came in and said something to them which made them stop the argument.

Q1. What might their teacher have said to solve their argument?

- (a) Ram, please understand, Shetty is correct in this situation
- (b) Shyam, please understand, Ram is correct In this situation.
- (c) Both are correct
- (d) None is correct

Q2. Shyam talked about which type of users of accounting?

- (a) Internal users
- (b) External users
- (c) Both (a) and (b)
- (d) None of these.

Q3. Which limitation of accounting is being talked about by them?

- (a) Influenced by personal judgment
- (b) Omission of qualitative information.
- (c) Incomplete information
- (d) Based on historical costs

Q4. Which advantage of accounting is being talked about by Shyam in the last part of the first para?

- (a) Provides information regarding profit and loss
- (b) Provides complete and systematic record
- (c) Enables comparative study
- (d) Evidence in legal matters

Q5. Which branch of accounting is liked by Ram?

- (a) Financial accounting
- (b) Cost accounting
- (c) Management accounting
- (d) Tax accounting



DARSHAN ACADEMY

SUMMER ASSIGNMENT 2024-25

GRADE XI, SUBJECT: – BIOLOGY

Welcome, Class XI students, to your Biology Summer Vacation Assignment! As we embark on this journey beyond the confines of our classroom, we aim to delve deeper into the fascinating world of biology. This assignment is not just a task to be completed; it's an opportunity for exploration, discovery, and personal growth.

Task 1- Field Study

Conduct a field study related to any aspect of biology. This could involve visiting a local ecosystem, a botanical garden, a zoo, or any other relevant location. Here are some suggestions:

- Biodiversity Survey: Conduct a biodiversity survey in a nearby park or natural area. Record the species of plants, animals, and microorganisms you observe and analyze the diversity.
- Botanical Garden Visit: Visit a botanical garden and observe different plant species. Identify and document various plant adaptations to different environmental conditions.
- Wildlife Observation: Spend time observing wildlife in a natural setting. Record your observations of animal behavior, interactions, and adaptations to their environment.

Report Writing : Write a report summarizing your findings from the field study. Your report should include: Introduction, Field study observations, pictures, conclusion

Task 2- Project work- Prepare a project report on any one topic suggested below or you can choose any topic of your choice:

- Study of Probiotics and their Preparation.
- Effect of Light on the distribution of plants.
- Investigation of Antibiotic Resistance in Bacteria:
- Effect of Exercise on Heart Rate and Breathing Rate
- Study of Insect Diversity in Different Habitats:
- Investigation of Plant Hormones and Growth Regulators:
- Investigation of Microbial Growth on Food:
- Study of Mendelian Genetics Using Punnett Squares
- Case study on any disease

Q1	Task 3- Attempt the given questions in your assignment notebook- Choose the correct option:
1	Most primitive vascular plants? a) Mosses b) Cycads c) Kelps d) Ferns
2	Zygotic meiosis is the characteristic of a) Fucus b) Funaria c) Marchantia d) Chlamydomona

3	Which one differs from Spirogyra based on its nucleus? a) Azygospore b) Zygoospore c) Akinete d) Aplanospore
4	Angiosperms are the dominant flora because of a) Domestication by man b) Power of adapting in diverse habitats c) Self-pollination property. d) Property of producing a large number of seeds.
5	Which of the following combinations is incorrect? a) Nematoda- roundworms, pseudocoelomate b) Calcarea- gastrovascular cavity, coelom present c) Echinodermata- coelom present, bilateral symmetry. d) Platyhelminthes- gastrovascular cavity, flatworms, acoelomate

Directions: In the following questions, a statement of assertion is followed by a statement of reason.

	Mark the correct choice as: (a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion. (b) If both Assertion and Reason are true but Reason is not the correct explanation of assertion. (c) If Assertion is true but Reason is false. (d) If both Assertion and Reason are false.
6	Assertion: Bacteria are prokaryotic. Reason: Bacteria do not possess true nucleus and membrane bound cell organelles.
7	Assertion: Sand fly transmits Kala-azar. Reason: In Kala-azar, the parasite damages the brain.
8	Assertion: Two kingdom classification was insufficient. Reason: Majority of organisms failed to fall into either of the categories in two kingdom classification.
9	Assertion: Methanogens are obligate anaerobes. Reason: Halophiles are salt loving bacteria.
10	What advantages does the five-kingdom classification have over the two-kingdom classification?
11	Why are cyanobacteria used in agricultural fields for crop improvement?
12	Why do polluted water bodies have an abundance of Nostoc and Oscillatoria?
13	What features of Trypanosoma make it fall under the kingdom Protista?
	Task 4- Herbarium File –Create herbarium sheets of various plants of different species along with their taxonomical hierarchy, description and economical importance.



DARSHAN ACADEMY

SUMMER ASSIGNMENT 2024-25

GRADE XI, SUBJECT: – PHYSICS

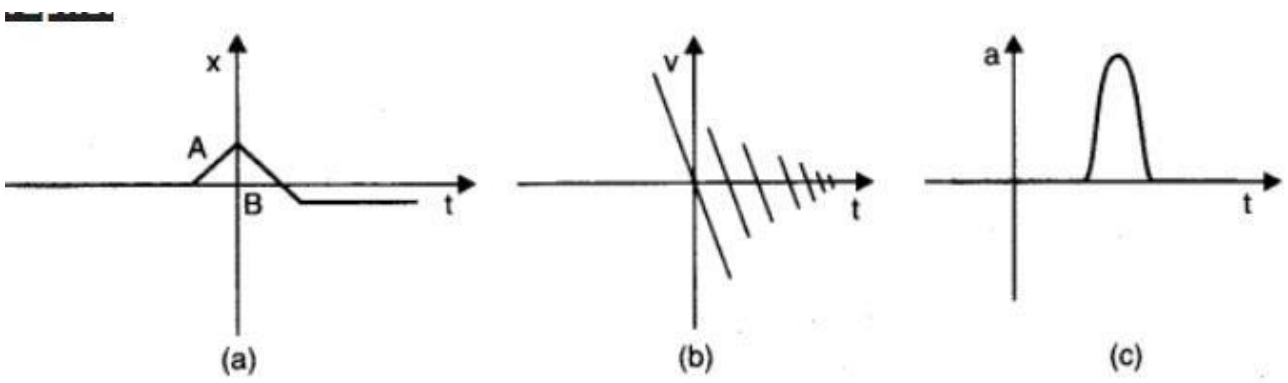
(UNIT AND MEASUREMENT, KINAMETICS)

Note: Do all question in Assignment copy.

LOTS:

Q1.	What will be the effect on horizontal range of a projectile when its initial velocity is doubled, keeping the angle of projection same?	
Q2.	Which graph represents higher velocity and why?	
Q3.	An object is moving with constant velocity v along a straight line. What will be the shape of displacement-time graph if (a) $x_0 = -ve, v = +ve$ (b) $x_0 = +ve, v = -ve$	
Q4.	The minutes hand of a wall clock is 10 cm long. Find its displacement and the distance covered from 12.00 noon to 12.30pm.	
Q5.	State the number of significant figures in the following: a) 2542.002 b) 0.000254 c) 0.000242400 d) 24524 e) 2000 f) 2000 meter	
Q6.	The circular scale of a screw gauge has 50 divisions and pitch of 0.5mm. Find the diameter of sphere. Main scale reading is 2.	
Q7.	A particle is thrown upwards. It attains a height h after 5 s and again after 9 s. What is the speed of the particle at height h ?	
Q8.	A body covered a distance of 'l' metre along a semicircular path. Calculate the magnitude of displacement of the body and the ratio of distance to displacement	
Q9.	Draw position- time graphs for two objects having zero relative velocity.	
Q10.	Give an example of (a) a physical quantity which has a unit but no dimensions. (b) a physical quantity which has neither unit nor dimensions. (c) a constant which has a unit. (d) a constant which has no unit.	
Q11.	The distance 'x' of a particle moving in one dimension, under the action of a constant force is related to time 't' by the equation $t = \sqrt{x} + 3$, where 'x' is in metres and 't' in seconds. Find the displacement of the particle when its velocity is zero.	
Q12.	Draw displacement time graph for a uniformly accelerated motion? What is its shape?	
Q13.	A train is moving due east with a velocity of 60km/h and a car is running due north with a velocity of 60km/h. What is the observed velocity of the car as felt by a passenger in the train.	
Q14.	The displacement of a progressive wave is represented by $y = A \sin(\omega t - kx)$, where x is distance and t is time. Write the dimensional formula of (i) ω and (ii) k	

<p>Q15.</p>	<p>The position-time ($x-t$) graphs for two children A and B returning from their school O to their homes P and Q respectively are shown in Fig. Choose the correct entries in the brackets below:</p> <p>(a) (A/B) lives closer to the school than (B/A). (b) (A/B) starts from the school earlier than (B/A). (c) (A/B) walks faster than (B/A). (d) A and B reach home at the (same/different) time. (e) (A/B) overtakes (B/A) on the road (once/twice).</p>	
<p>Q16.</p>	<p>Earth moves in circular orbit around the sun once every year with an orbital radius of 1.5×10^{11} m.</p>	
<p>Q17.</p>	<p>Photon is quantum of radiation with energy $E = h\nu$ where ν is frequency and h is Planck's constant. The dimensions of h are the same as that of (a) Linear impulse b) Angular impulse c) Linear momentum d) Angular momentum</p>	
<p>Q18.</p>	<p>A ball is thrown vertically upward with a velocity of 20m/sec from top of a multistoried building. The height of a point from where the ball is thrown is 25 m from the ground. (i) how high the ball will rise? (ii) How long will it be before the ball hit the ground?</p>	
<p>Q19.</p>	<p>Look at the graphs (a) to (d) Fig. carefully and state, with reasons, which of these cannot possibly represent one-dimensional motion of a particle.</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;"> <p>(a)</p> </div> <div style="text-align: center;"> <p>(b)</p> </div> <div style="text-align: center;"> <p>(c)</p> </div> <div style="text-align: center;"> <p>(d)</p> </div> </div>	
<p>Q20.</p>	<p>use integration technique to prove that the distance travelled in nth second, $S_n = u + \frac{a}{2} (2n - 1)$</p>	
<p>Q21.</p>	<p>If P, Q, R are physical quantities, having different dimensions, which of the following combinations can never be a meaningful quantity? (d) $(P - Q)/R$ b) $PQ - R$ c) PQ/R d) $(PR - Q^2)/R$ e) $(R + Q)/P$</p>	

Q22.	Write the dimension formula of the followings: a) Universal gravitational constant b) Charge c) Plank constant d) Potential difference e) Kinetic energy
Q23.	Rain is falling vertically with a speed of $30m/s$. A woman rides a bicycle with a speed of $10m/s$ in the north to south direction. What is the direction in which she should hold her umbrella?
HOTS:	
Q24.	The air bubble formed by explosion inside water perform oscillations with time period T which depends on pressure (p), density (ρ) and on energy due to explosion (E). Establish relation between T , p , E and ρ .
Q25.	A new unit of length is chosen such that the speed of light in vacuum is unity. What is the distance between the sun and the earth in terms of the new unit, if light takes 8 min and 20 sec to cover this distance.
Q26.	Which of the following is the most precise device for measuring length ? (a) a Vernier callipers with 20 divisions on the sliding scale (b) a screw gauge of pitch 1 mm and 100 divisions on the circular scale (c) an optical instrument that can measure length within a wavelength of light ?
Q27.	The mass of a box measured by a grocer's balance is 2.30kg. Two gold pieces of masses 20.15 g and 20.17 g are added to the box. What is (a) the total mass of the box (b) the difference in masses of the gold pieces to correct significant figures.
Q28.	Can the speed of an object be negative? Justify.
Q29.	Suggest a suitable physical situation for each of the following graphs. Where x is displacement, v is velocity, a is acceleration. 

CASE STUDY:

Q30.	<p>QUES A: System of units: A system of units is a collection of units in which certain units are chosen as fundamental and all others are derived from them. This system is also called an absolute system of units. Some common systems in use are:</p> <p>CGS system: The unit of length is centimetre, mass is gram, time is second.</p> <p>MKS system: The unit of length is metre, mass is kilogram, time is second.</p> <p>FPS system: The unit of length is foot, mass is pound, time is second.</p>
------	--

S.I. system: In 1960, 11th General Conference of Weights and Measures introduced SI system. It has 7 fundamental units (Unit of length is metre, mass is kilogram, Time is second, Temperature is Kelvin, Electric current is Ampere, Luminous intensity is Candela, Amount of substance is mol) and two supplementary units (Unit of plane angle is radian, solid angle is steradian)

Q1: Which of the following is not the name of physical quantity?

- (a) Kilogram (b) Density
(c) Impulse (d) Energy

Q2: The weight of a body is 12g. This statement is not correct because

- (a) The correct symbol for the unit of weight has not been used.
(b) The correct symbol for gram is gm.
(c) The weight should be expressed in kg.
(d) Of some reason other than those given above

Q3: If the unit of force and length are doubled, the unit of energy will be

- (a) 1/2 times (b) 2 times
(c) 4 times (d) 1/4 times

Q4: The density of a liquid is 13.6 g cm⁻³. Its value in S.I. is

- (a) 13.6 kgm⁻³ (b) 136 kgm⁻³
(c) 13600 kgm⁻³ (d) 1360 kgm⁻³

Q5: 1Kg-wt in gravitational units equals to

- (a) 5.4 N in SI system (b) 4.5 N in SI system
(c) 9.8 N in SI system (d) 8.9 N in SI system

Directions: Each of these questions contain two statements, Assertion and Reason. Each of these questions also has four alternative choices, only one of which is the correct answer. You have to select one of the codes (a), (b), (c) and (d) given below.

- (a) Assertion is correct, reason is correct; reason is a correct explanation for assertion.
(b) Assertion is correct, reason is correct; reason is not a correct explanation for assertion
(c) Assertion is correct, reason is incorrect
(d) Assertion is incorrect, reason is correct.

Q31. **Assertion:** Two particles of different mass, projected with same velocity at same angles. The maximum height attained by both the particle will be same.

Reason: The maximum height of projectile is independent of particle mass.

Q32. **Assertion:** Horizontal range is same for angle of projection θ and $(90 - \theta)$.

Reason: Horizontal range is independent of angle of projection.

Q33. **Assertion** When we change the unit of measurement of a quantity, its numerical value changes.

Reason: Smaller the unit of measurement smaller is its numerical value.

Q34. **Assertion:** The number of significant figures depends on the least count of measuring instrument.

Reason: Significant figures define the accuracy of measuring instrument.

Q35. **Assertion:** Minimum number of non-equal vectors in a plane required to give zero resultant is three.

Reason: If sum of vectors $\mathbf{A}+\mathbf{B}+\mathbf{C}=\mathbf{0}$, then they must lie in one plane.



DARSHAN ACADEMY

SUMMER ASSIGNMENT 2024-25

GRADE XI, SUBJECT: – BUSINESS STUDIES

Commerce education helps students to learn how to manage money and investments. They can make smarter financial decisions. Students learn about accounting, taxes, and how to invest wisely which is important for their good life. Commerce seeks to fulfill the wants and needs of the people; it can lead to a higher standard of living. The importance of commerce and trade also lies in its ability to help to create jobs throughout the chain of business, from materials gathering, to processing and production, to retail sales of a product. Through holiday homework Students can work independently, efficiently manage their time, and develop crucial study skills such as researching, critical thinking, and problem-solving.

ACTIVITY WORK

(Students have to do any two out of given three activity work)

- I) Prepare a collage on any one topic out of the following topics :
 - a) 5 Indian MNC's and their CEO's with their Brand name, Share price.
 - b) 5 Non Indian MNC's and their CEO's with their Brand name, Share price.
 - c) Various quality marks and their issuing agencies in India and worldwide.

- II) Go to your neighbourhood and write about five persons who are engaged in various economic activities. Write about each person like name of economic activity in which they are engaged and characteristics of those economic activities. Which economic activities do you like most and explain why after collected data from five persons.

- III) Choose any company out of the following companies (Wipro, Dabur, Hindustan Uniliver, Samsung etc.) and do the study of following parameters and make one presentation on these parameters.
 - a) Which objectives they are fulfilling? Show these with the help of pictures.
 - b) In which products it is dealing? Paste pictures of these products
 - c) Their profitability percentage over a number of years through bar graph
 - d) What incentives they have been providing to their staff for motivating them?

(Do the holiday homework on separate register)

CHAPTER NO. 1 NATURE & PURPOSE OF BUSINESS

Answer the following questions:

- 1) Which of the following is/are treated as Auxiliaries to Trade?
 - (a) Banking Industry
 - (b) Insurance Industry
 - (c) Transportation Industry
 - (d) All of the above
- 2) The reward of risk is:
 - (a) Success
 - (b) Failure
 - (c) Profit
 - (d) Loss
- 3) Name the two broad categories of business activities.
 - (a) Trade and commerce
 - (b) Trade and industry
 - (c) Industry and commerce
 - (d) None of these
- 4) Assertion (A) Business represents the exchange of Goods and Services.
Reason (R) Risk and Uncertainties are always there in any form of business
 - (a) Both A and R are true. R is the correct explanation of A
 - (b) Both A and R are true, but R is not the correct explanation of A
 - (c) A is correct, but R is incorrect
 - (d) A is incorrect, but R is correct
- 5) Which of the following does not characterize business activity :
 - (a) Production of goods and services
 - (b) Presence of risk
 - (c) Sale or Exchange of goods and services
 - (d) Salary or wages
- 6) "Amrut" is an NGO operating in the district of Rajkot since 2005. It deals in providing medicines and other medical facilities to the rural, backward, and below-poverty-line people in the district. In case of need, arrangements are made by the NGO to shift critical patients to referred hospitals. Name the type of human activities performed by the NGO "Amrut".
 - (a) Economic Activities
 - (b) Non-Economic Activities
 - (c) Spiritual Activities
 - (d) None of the above
- 7) Maninder, Surinder and Balbinder and Harinder pursued their Master's Degrees in Business Management from a reputed institute in Delhi. After completion of their studies, all of them got engaged in different fields. Maninder got a job at an Oil Refinery Industry as a Junior Executive in Finance. Surinder joined his family business in Textile Industry in Jalandhar, Punjab. Balbinder opened his own Dairy Firm and Harinder join the construction business. Identify the type of industry Mr. Surinder worked with as highlighted in the above case.

- (a) Analytical Industry
- (b) Synthetic Industry
- (c) Processing Industry
- (d) Assembly Industry

8) Match the following

	Column I	Column II
A.	Processing industry	1. Sugar mills
B.	Genetic industry.	2. Packaging
C.	Synthetical industry.	3. Cement
D.	Tertiary industry.	4. Animal husbandry

Codes

	A	B	C	D
(i)	3	2	1	4
(ii)	4	1	3	2
(iii)	1	4	3	2
(iv)	1	2	3	4

9) Match the following

	Column I	Column II
A.	Economic activity	1. Building
B.	Non- economic activity	2. Coal mines
C.	Constructive industry.	3. Teaching by a teacher
D.	Extractive industry.	4. Feeding by mother

Codes

	A	B	C	D
(i)	3	4	1	2
(ii)	4	1	3	2
(iii)	1	4	3	2
(iv)	1	2	3	4

10) Monica Khanna is a jewellery designer. She started her career from scratch and took advanced designing course at Jewellery Product Development Center. In the completion of the course she got the job at Gitanjali Gems. Being an experienced jewellery designer, Monica Khanna focuses on maintaining the originality and creativity of the ornaments that are custom designed and developed by her. On the basis of the given information about Monica Khanna, answer the following questions:

- a) Identify the type of economic activity that Monica Khanna is engaged in.
- b) State any three features of the type of economic activity is identified in part (a).

11) Katherine wants to start a retail business of fashionable items. Change in taste and preferences of customers may result in loss in such type of business. She is hesitating as she is aware of risks which are inherent in every business. She approaches her friends Kristina who is the owner of a retail shop. Kristina advises her to go ahead with her idea as she will get profit as return for undertaking risk. She also told her that some risks in business can be insured by taking

insurance policy. On the basis of the given information about Katherine answer the following questions:

a) What is Business Risk?

b) Identify the main features of business risk discussed in the above case. Also quote the lines for the identified features.

c) Is change in taste and preferences of customers, pure risk or speculative, why?

12) Go Earth Ltd. Manufactures jute bags and its factory have been set up in a residential area. The company has employed unskilled and semi- skilled workers and pay them lower wages on the pretext of at least providing jobs as the employment opportunities in the area is quite limited. During the production process, lots of residual is left. In order to decrease cost and increase profitability, the company dumps residual in the residential area which is sold after substantial time gap. This practice causes lot of inconvenience to the residents of that area. On the basis of the given information about Go Earth Ltd., answer the following questions:

a) Identify and explain the objective of management which is ignored by the company.

b) Identify any two values which the company has violated.

13) Aman and Sandeep completed their studies and planned to start their own business instead of looking for job. Aman's father is working in Portland Cement manufacturing company as supervisor. He told them that common materials used to manufacture cement include limestone, shells, and chalk or marl combined with shale, clay, slate, blast furnace slag, silica and, and iron ore. He also told them that limestone is most often mined from a quarry which is done by Adarsh Ltd. He told them that his company is facing a problem of storing the limestone because of shortage of space. This gave them an idea to start a warehousing business. On the basis of the given information, answer the following questions:

a) Identify the different types of industries being discussed in above case.

b) Specify the category of type of industries to which the industries identified in part(a)

14) Take any two reputed companies from Google. Do the following on your register:

a) Name and draw the Logo of the company with details of their CEO, MD, Etc.

b) Mention the products in which company deals.

c) Write the price of share of these companies. Is price of share increasing from last five years?

d) Some information about the performance of the company in past years.

15) i). Identify the type of industry shown in below picture:



- (a) Extractive Industry
- (b) Primary industry
- (c) secondary industry
- (d) None of the above

ii) Identify the type of industry shown in the below picture



- (e) extractive industry
- (f) assembling industry
- (g) processing industry
- (h) None of the above

CHAPTER NO. 2 FORMS OF BUSINESS ORGANISATIONS

Multiple Choice Questions (MCQ'S)

- 1) Ajeet started its Travel Agency in the year 2000 by taking a small room on Rent in Delhi. He invested money and efforts to build his business. Quality and timely services provided by his Travel Agency made him popular in Delhi. Name the form of business organization owned and operated by Ajeet.
(A) Partnership (B) One Person Company (C) Joint Venture (D) Sole Trading Concern

- 2) After completing high studies in Hotel Management courses from one of the highly reputed Hotel Management Institutes of India, Mahesh decided to start his own Bakery at his home town. His father arranged funds and supported him to commence his business. He recruited some staffs, purchased required equipments and machineries. Within few months, he started manufacturing bakery products in the market and sold at reasonable prices. His quality products and reasonable

prices helped him in making good profit. Identify the form of business organization highlighted in the above case.

(A) Company (B) Joint Hindu Family Business (C) Sole Trading concern (D) Partnership

- 3) Amandeep involves in selling School and College Uniforms at his retail outlet located at Ambala. It is his family business, now controlled and managed by him. In the Covid– 19 period, schools and colleges are mostly closed all around the state. Due to this pandemic situation, he records a very little business of ignorable volume. He is paying staff salaries, electricity bills and other fixed expenses each month. He is facing huge financial losses because of Covid -19 and its effects.

Which features of sole trading business is highlighted in the above case?

(A) Easy Formation (B) Profit (C) Secrecy (D) Risk and Uncertainties

- 4) Sudhanshu is an active partner in a partnership firm, where, liability of partners is unlimited. Partners are allowed to participate in the management of the firm business. All the partners are abided by the rules framed in the partnership. Registration of partnership firm is optional and the firm business may come to an end on the event of death, insolvency and lunatic of any partner.

Which type of partnership referred in the above case?

(A) General Partnership (B) Partnership at will (C) Limited Liability Partnership (D) Particular Partnership

- 5) The objects of the company are specified by

(A) Articles of Association (B) Memorandum of association (C) Prospectus (D) Certificate of Incorporation

- 6) The concept of 'Separate Legal Existence' applies to (i) Sole proprietorship (ii) Partnership (iii) Joint stock company (iv) Cooperative society

Choose the correct option: (A) i and iii (B) ii and iii (C) ii and iv (D) iii and iv

- 7) Which of the following statement is not correct?

(A) A company can refer Table A if it does not prepare its articles of association.

(B) A private limited company can have maximum 200 members.

(C) A minor as a partner can inspect the books of the firm.

(D) One-person company is a company, which has one person as its member

Assertion- Reasoning Based Questions

- 1) Assertion (A) Sole Trading Concern is treated as a "One Man Show".

Reason (R) It is owned, controlled, managed and operated by the owner all alone.

Codes

(A) Both A and R are true. R is the correct explanation of A

(B) Both A and R are true, but R is not the correct explanation of A

(C) A is correct, but R is incorrect

(D) A is incorrect, but R is correct

- 2) Assertion (A) Partnership is formed by an agreement which may be oral or in writing. Reason (R) It is always advisable to have written partnership agreement to avoid all kinds of disputes which may arise in future.

Codes

- (A) Both A and R are true. R is the correct explanation of A
- (B) Both A and R are true, but R is not the correct explanation of A
- (C) A is correct, but R is incorrect
- (D) A is incorrect, but R is correct

Answer the following questions

- 1) Explain the concept of mutual agency in partnership with suitable example.
- 2) Mr. Singh is in 'lighting' business for the past 15 years. To help his friend, Mr Yadav, a beginner he projected himself as a partner before Mohd. Abdul, a whole sale dealer of fancy lights. Mohd. Abdul gave Mr. Yadav the stock without asking for payment and gave him credit limit of one month. Will Mr. Singh be liable to Md. Abdul if Mr. Yadav does not pay him on time? Classify Mr. Singh's role here along with an explanation
- 3) Shiv, Anandi & John were partners John died in a car accident Both Shiv & Anandi decided to admit his son Ryan who was 16 years old as partner. Can they do so? Justify.
- 4) In what type of business, individuals associate voluntarily for profit, having capital dividend into transferable shares, the ownership of which is the condition of membership? Explain with features
- 5) Who have equal ownership right over the property of an ancestor? Highlight with its essential characteristics.
- 6) Dhirubhai Chaurasiya operates a textile business. His family is joint and has a lot of ancestral property. All the 15 family members are a part of this business. He is the eldest male member in the family so he heads the business. He is liable to all the creditors of the business as he is the decision maker. Dhirubhai's grandson has just born a few days ago and he is also the member of the business.
 - (a) Which form of business is being undertaken by Dhirubhai Chaurasiya?
 - (b) Identify the features of this form of business based on the information given.



DARSHAN ACADEMY

SUMMER ASSIGNMENT 2024-25

GRADE XI, SUBJECT: – ECONOMICS

MONTH OF JUNE BROUGHT LONG, HOT DAYS AND NOW WE HAVE OUR SUMMER HOLIDAYS SCHOOL IS CLOSED AND NO SET RULES WAKING UP LATE AND GOING TO POOL.

LITTLE HOMEWORK, EASY TO BE DONE PLAYING WITH FRIENDS AND LOTS OF FUN, BEAUTIFUL TIME COMES ONCE IN A YEAR, SUMMER HOLIDAYS ARE BEST DAYS EVER!!

General Instructions to prepare the project: (In project file) (To be made separately)

1. The project should be simple, brief and easy.
2. It should be handwritten. The cover page should be neat and simple in presentation. No glitters etc. should be used.
3. More credit will be given to original drawings, illustrations, mind maps and articles from magazines and newspapers.
4. The project should not have any political comments or reference to any political party.
5. It is not mandatory to have case studies / questionnaires in the project but if the topic demands it may be included.
6. While choosing the topic, the student should keep in mind that he can be questioned on what, when how etc. of the topic during viva.
7. By July 11th, 2024 the project has to be submitted.
8. The PROJECT will be evaluated for 20 marks during the FIRST TERMINAL EXAMINATION, 2024 and the marking will be done as per the CBSE guidelines given below.
9. The project carries 20 marks and the evaluation pattern will be as under, as per CBSE
 - 1 Relevance of the topic: 3 marks
 2. Knowledge Content / Research work: 6 marks
 3. Presentation Technique: 3 marks
 4. Viva: 8 marks.

The project should contain:

COVER PAGE

ACKNOWLEDGEMENT AND CERTIFICATE

INDEX

ABSTRACT

CHAPTERS

CONCLUSION BIBLIOGRAPHY

(use only A4 size sheets of light pastel colors. No floral sheets to be used.)

COVER PAGE

PROJECT REPORT ON ----- (TOPIC) Submitted in the partial fulfillment of the project work of Class XI Economics Session: 2024-25 By - ----- Under the supervision of ----- (PGT Economics) ----- School -----

ACKNOWLEDGEMENT

I would like to specially thank Ms.-----Principal of----- for her support and encouragement in every Endeavour of ours. I would also like to express my gratitude towards my teacher ----- For her extended guidance and support throughout the project work. Last but not the least I would like to thank my parents for their love and support. --

BONAFIDE CERTIFICATE

This is to certify that the project report of Economics titled----- Submitted by ----- of class ----- This project is to be considered as a part of practical exam of First Terminal Examination conducted by the School. It is a bonfire record of project work carried out under our guidance and supervision At ----- School. The project has been evaluated on ----- Head of the institution's Name & Signature ----- Examiner's Name & Signature -----

LET'S PRACTICE MICRO ECONOMICS (In Assignment Note book)

1) Which of the following statements reflect the correct situation related to the allocation of the resources?

- a) Allocation of the resources comes under the causes of economic problems

- b) Allocation of the resources comes under the causes of opportunity cost
- c) Allocation of the resources comes under the causes of central problems
- d) Allocation of the resources comes under the causes of marginal demand

2) Which of the following conclusions is true about the statement 'Rich people should be taxed more'?

- a) The statement 'rich people should be taxed more is an example of positive economic analysis
- b) The statement 'rich people should be taxed more is an example of productive economic analysis
- c) The statement 'rich people should be taxed more is an example of normative economic analysis
- d) The statement 'rich people should be taxed more is an example of negative economic analysis.

3) The problem of 'what to produce 'relates to

- a) The choice of technique
- b) Distribution of income
- c) Market value of the goods and services
- d) Choice of goods and services.

4) When some resources are shifted from use-1 to use-2 (given technology), the marginal rate of transformation:

- a) Increase
- b) Decrease
- c) Remains constant
- d) Is zero.

5) Law of diminishing marginal utilities states that when more and more units of a commodity are consumed, marginal utility:

- a) Begins to increase
- b) Remains constant

c) Begins to decrease

d) Becomes zero.

6) Read the following Case Study carefully and answer the questions on the basis of the same:

If our income rises, we generally tend to buy more of the goods. More income would mean more pens, more shirts, more shoes, more cars and so on. But there are exceptions. If initially, you are buying coarse grain, how would you take your increase in income now? Perhaps, as a first step, you would discard the consumption of inferiors. Surely, this happens in the deserts of Rajasthan where the rich minority eats wheat while the poor majority eats Bajra as their staple food.

1) The law of demand does not apply to _____ goods. (Normal/ Giffen)

2) Inferior goods are those whose income effect is _____. (Negative/ Positive)

3) A fall in income of the consumer (in case of normal goods) will cause

- a) Upward movement on the demand curve.
- b) Downward movement on the demand curve
- c) Rightward shift of the demand curve
- d) leftward shift of the demand curve

4) As a result of rise in consumer's income, the demand curve for coarse-grain (inferior good)

- a) Becomes a horizontal straight line
- b) Becomes a vertical straight line
- c) Shifts to the right
- d) Shifts to the left.

7) A consumer consumes only two good X and Y whose prices are Rs. 2 and Rs. 1 per unit respectively. If that consumer choses a combination of the two goods with marginal utility of X being 4 and that of y also being 4, is the consumer in equilibrium?

Give reasons. Explain what a rational consumer will do in this situation.

Statistics

1. Select an incorrect statement with regard to the study of economics

- (a) Study of consumption

(b) Study of production

(c) Study of distribution

(d) Study of investment

2. Which of the following indicates a stage of statistical study?

(a) Presentation of data

(b) Collection of data

(c) Analysis of data

(d) all of these

3. In singular sense Statistics means:

(a) Statistical science

(b) Statistical law

(c) Both (a) and (b)

(d) None of these

4. In plural refers to the information in the terms of

(a) Collection of data

(b) Interpretation of data

(c) Both A and B

(d) Numerical data

5. The government and policy makers use statistical data to formulate suitable policies of economic development'. Illustrate with two examples.

6. Statistical methods are no substitute for common sense. COMMENT.



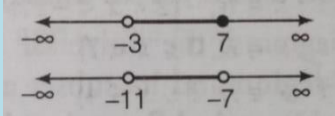

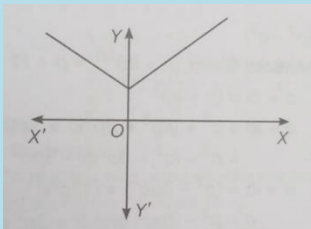
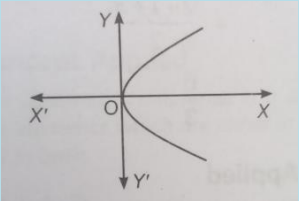
DARSHAN ACADEMY

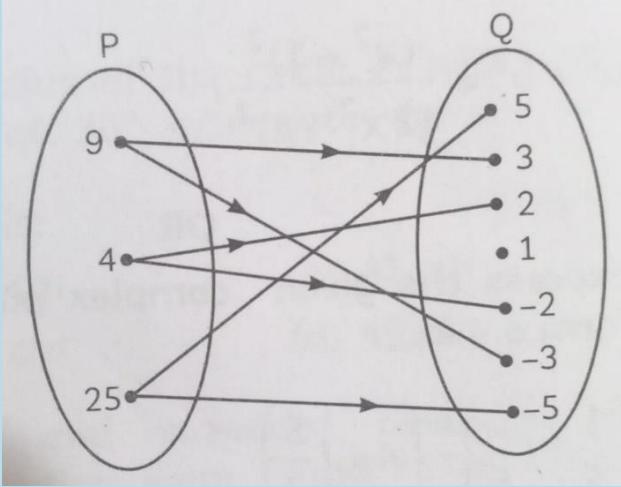
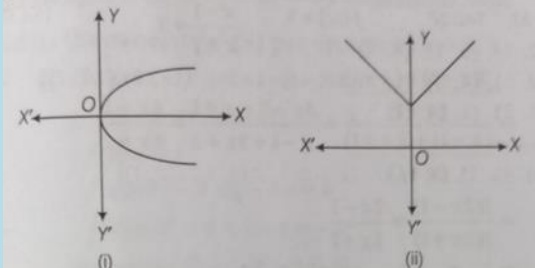
SUMMER ASSIGNMENT 2024-25

GRADE XI, SUBJECT: – MATHEMATICS

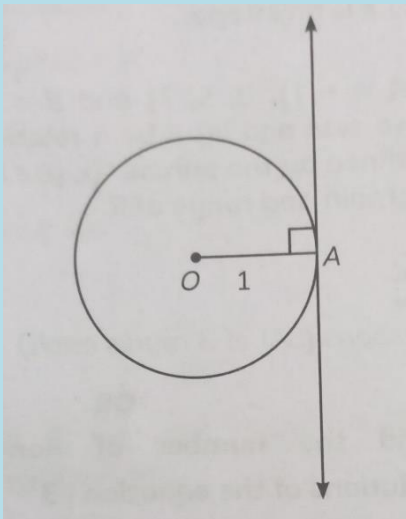
SETS

<p>Q1</p>	<p>In the following questions, a statement of assertion (A) is followed by a statement of the reason (R). Assertion (A): The set $\{x: x \text{ is a month of a year not having 30 days}\}$ in roster form is $\{\text{January, February, March, May, July, August, October, December}\}$. Reason (R): A collection of objects is called set.</p>	<p>Mark the correct choice as: (a) Both (A) and (R) are true and (R) is the correct explanation of (A). (b) Both (A) and (R) are true but (R) is not the correct explanation of (A). (c) (A) is true but (R) is false. (d) (A) is false but (R) is true.</p>
<p>Q2</p>	<p>Two finite sets have m and n elements. The total number of subsets of first set is 112 more than the total number of subsets of second set. Find the values of m and n.</p>	
<p>Q3</p>	<p>The set $\{x : x^2=x, x \in \mathbb{N}\}$ can be expressed in roster form as</p>	<p>$\{0,1\}$ $\{1\}$ $\{0\}$ $\{\}$</p>
<p>Q4</p>	<p>Let $A = \{x: x \in \mathbb{Z} \text{ and } x^2 \leq 4\}$ and $B = \{x: x \in \mathbb{R} \text{ and } x^2 - 3x + 2 = 0\}$. Then, a.</p>	<p>$A = B$ $A \neq B$ $A \in B$ $A \notin B$</p>
<p>Q5</p>	<p>Let $A = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$ and $B = \{2, 3, 5, 7\}$. Then, which of the following is true?</p>	<p>(a) $A \cap B = A$ (b) $A \cap B = B$ (c) $A \cap B \notin B$ (d) None of these</p>
<p>Q6</p>	<p>Let A, B, C be three sets. If $A \in B$ and $B \subset C$, then</p>	<p>$A \subset C$</p>

		b. $A \in C$ c. $A \notin C$ d. None of these
Q7	Write the set $A = \{14,21,28,35,42,\dots,98\}$ in set-builder form.	
Q8	Describe the following set in set-builder form $B = \{53,59,61,67,71,73,79,83,89,97\}$	
Q9	Write the following intervals in set-builder form. (i). $[6,12]$ (ii). $[-23,5)$	
Q10	If $A = \{1,2,3\}$, then find the power set of A.	
Q11	Write the following as intervals and also represent on real line. (i) $\{x:x \in \mathbb{R}, -3 < x \leq 7\}$ (ii) $\{x:x \in \mathbb{R}, -11 < x < -7\}$	
Q12	If A, B and C are three sets such that $A \subset B$, then prove that $C - B \subset C - A$.	
RELATION AND FUNCTION		
Q1	<p>A Teacher of class XI teaches the chapter Relation and Functions. She teaches that a relation from a non-empty set A to a non-empty set B is said to be a function if every element of set A has one and only one image in set B. In other words, we can say that a function f is a relation from a non-empty set A to a non-empty set B such that the domain of f is A and no two distinct ordered pairs in f have the same first element or component. If f is a function from a set A to a set B, then we write $f: A \rightarrow B$ and it is read as f is a function from A to B or f maps A to B.</p> 	<p>Based on the above information, answer the following questions:</p> <p>(A)</p>  <p>Justify that the given curve represents a relation.</p> <p>(B) Justify that the given curve represents a function.</p>  <p>(C) If $f(x) = x^2 + 2x + 3$, then among $f(1)$, $f(2)$ and $f(3)$, which one gives the maximum value? OR If $f(1+x) = x^2 + 1$, then find the value of $f(2-h)$.</p>

<p>Q2</p>	<p>A class XI teacher, after teaching the topic of 'Relations' tries to access the performance of her students over this topic. The figure shows a relation between the sets P and Q.</p> 	<p>Based on the given information, answer the following questions:</p> <p>(A) Write this relation in set builder form.</p> <p>(B) Find the domain of relation.</p> <p>(C) Find the range of relation and also find the total number of relation from set P.</p> <p>OR</p> <p>If $R = \{(x, y): x, y \in \mathbb{Z}, x^2 + y^2 < 16\}$ is a relation on \mathbb{Z}, then find the domain of R.</p>
<p>Q3</p>	<p>If $n(A \times B) = 45$, then $n(A)$ cannot be</p>	<p>a) 15 b) 17 c) 5 d) 9</p>
<p>Q4</p>	<p>Let $n(A) = m$ and $n(B) = n$. Then, the total number of non – empty relations that can be defined from A to B is</p>	<p>a) m^n b) $n^m - 1$ c) $Mn - 1$ d) $2^{mn} - 1$</p>
<p>Q5</p>	<p>If $f(x) = 1/(2-\sin 3x)$, then range (f) is equal to</p>	<p>a) $[-1,1]$ b) $[-1/3,1/3]$ c) $[1/3,1]$ d) $[-1,(-1)/3]$</p>
<p>Q6</p>	<p>A and B are two sets given in such a way that AB contains 6 elements. If three elements of $A \times B$ are (1, 3), (2, 5) and (3, 3), find A, B and remaining elements of $A \times B$.</p>	
<p>Q7</p>	<p>If $A = \{1,3,6\}$ and $B = \{x, y\}$, then represent the following cartesian products by an arrow diagrams (i). $A \times B$ (ii). $A \times A$</p>	
<p>Q8</p>	<p>Identify the curve, which is a relation or function.</p> 	
<p>Q9</p>	<p>Find the domain of each of the following function (i). $1/\sqrt{x-2}$ (ii). $\sqrt{4-x^2}$</p>	
<p>Q10</p>	<p>Find the domain and range of the function $f(x) = 1 - x-2$.</p>	
<p>Q11</p>	<p>Find the quotient of the identity function by the modulus function</p>	

TRIGONOMETRIC FUNCTIONS

<p>1.</p>	<p>In the following questions, a statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.</p> <p>Let $\sec \theta + \tan \theta = m$, where $0 < m < 1$.</p> <p>Assertion (A): $\sec \theta = \frac{m^2 + 1}{2m}$ and $\sin \theta = \frac{m^2 - 1}{m^2 + 1}$</p> <p>Reason (R): $\rightarrow \theta$ lies in the third quadrant.</p>	<p>(a) Both (A) and (R) are true and (R) is the correct explanation of (A).</p> <p>(b) Both (A) and (R) are true but (R) is not the correct explanation of (A).</p> <p>(c) (A) is true but (R) is false.</p> <p>(d) (A) is false but (R) is true.</p>
<p>2.</p>	<p>Consider a unit circle with centre O. Let A be any point on the circle. Consider OA as the initial side of an angle. Then the length of an arc of the circle will give the radian measure of the angle which the arc will subtend at the centre of the circle.</p> <p>A circle subtends an angle at the centre whose radian measure is $2n$ and its degree measure is 360°.</p> 	<p>Based on the above information, answer the following questions:</p> <p>(A) Convert 240° into radian measure.</p> <p>(B) A wheel makes 360 revolutions in one minute. Through how many radians does it turn in one second?</p> <p>C) Convert 1.2 radians into degree measure.</p> <p>OR</p> <p>Find the radius of the circle in which a central angle of 45° intercepts an arc of 132 cm. (Use $\pi = \frac{22}{7}$).</p>
<p>3.</p>	<p>In a circle of radius r, an arc of length r will subtend an angle of</p>	<p>(a) r radian</p> <p>(b) 1 radian</p> <p>(c) π radian</p> <p>(d) 2π radian</p>
<p>4.</p>	<p>$\frac{\cos 4x + \cos 3x + \cos 2x}{\sin 4x + \sin 3x + \sin 2x}$ is equal to</p>	<p>a. $\sin 2x$</p> <p>b. $\cos 3x$</p> <p>c. $\tan 3x$</p> <p>d. $\cot 3x$</p>
<p>5.</p>	<p>Find the angle in radian through which a pendulum swings, if its length is 75 cm and tip describes an arc of length 21 cm.</p>	
<p>6.</p>	<p>Convert the following into radians: $-47^\circ 30'$</p>	
<p>7.</p>	<p>Prove that $\tan^2 \theta - \sin^2 \theta = \tan^2 \theta \sin^2 \theta$.</p>	

8.	Find the value of $\cos \theta$ and $\tan \theta$, if $\sin \theta = -\frac{3}{5}$ and $\pi < \theta < \frac{3\pi}{2}$	
9.	If $\cos \theta = -\frac{1}{2}$, θ lies in III quadrant, then find other five trigonometric functions.	
10.	Find the value of	(i) $\sin\left(\frac{25\pi}{3}\right)$ (ii) $\cos\left(\frac{41\pi}{4}\right)$
11.	Find the value of $\tan(\alpha+\beta)$, if $\cot \alpha = \frac{1}{2}$, $\alpha \in \left(\pi, \frac{3\pi}{2}\right)$ and $\sec \beta = -\frac{5}{3}$, $\beta \in \left(\frac{\pi}{2}, \pi\right)$.	
12.	Prove that $\sin 10^\circ \sin 30^\circ \sin 50^\circ \sin 70^\circ = \frac{1}{16}$	



DARSHAN ACADEMY

SUMMER ASSIGNMENT 2024-25

GRADE XI, SUBJECT: – HISTORY

Welcome to your Class XI summer holiday homework for history!

In this assignment, we embark on a fascinating journey through the annals of time to uncover the diverse and captivating narratives that have shaped our world. History, often referred to as the study of the past, is far more than a mere recounting of dates and events; it is a dynamic exploration of human experiences, societies, cultures, and civilizations.

During this summer break, you have the opportunity to delve deep into the rich tapestry of history, spanning ancient civilizations, by engaging with historical texts, primary sources, and scholarly analyses, you will develop an understanding of the complexities and continuities that define the human experience across time and space.

Through this assignment, you will not only expand your knowledge of historical events and developments but also sharpen your critical thinking, analytical skills, and ability to interpret historical evidence.

Get ready to uncover the mysteries of the past, unravel the complexities of historical narratives, and embark on a voyage of discovery that will enrich your understanding of the world and your place within it.

General Instruction : Do all the activities on A4 sized sheet.

Submission after vacations in a folder with all the sheets

CHAPTER 1- WRITING AND CITY LIFE

1. Mesopotamia: Cradle of Civilization Exploration-

What do you understand by the term Mesopotamia? Research on any one of its important centre and highlight the society, economy, geography and polity of the region. Prepare a Report of the same in 5 pages.

2. Mesopotamian Innovations: Shaping the World's Legacy-

Write an essay on the new contributions made by Mesopotamians to the world. Also, incorporate historical evidence, examples, and analysis to strengthen your views.

3. Mesopotamian Seal: Exploring Ancient Art and Symbolism-

Subject Enrichment- Draw a Mesopotamian seal and highlight its role and features. Point of reference included-

- Background information on Mesopotamian seals
- Uses of seals
- Materials used
- Techniques involved in seal-making.

4. Urban Design: Exploring Town Planning in Ancient Mesopotamia with Concept Mapping-

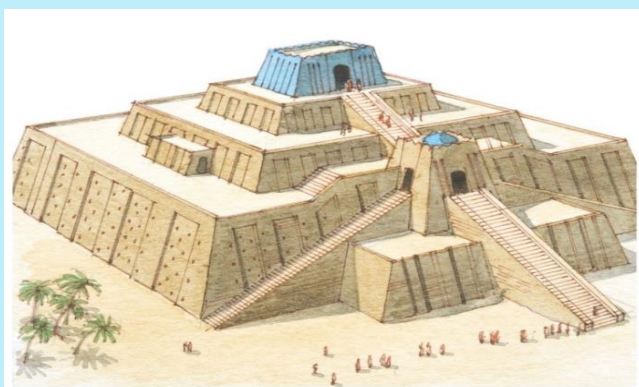
Was Ur a planned city in Mesopotamia? Give reasons of your answer with a concept map of the same. Discuss the features of town planning of early urban society.

5. Following are the pictures of Mesopotamian artefacts-

- Identify them.
- Describe their function and significance
- Compare and contrast your views with that of archaeologists



a)
b)



c)

CHAPTER 2- AN EMPIRE ACROSS THREE CONTINENTS

1. Map Plotting-

On map of Europe and North Africa- mark the boundaries of Roman Empire- North, South, East, west.

Q2. Constructing the Roman Empire: A Portfolio of Historical Sources

Make a portfolio of types of sources to reconstruct the history of Roman empire.

Q3. Draw a character sketch of the Roman emperor Augustus.



DARSHAN ACADEMY

SUMMER ASSIGNMENT 2024-25

GRADE XI, SUBJECT: – INFORMATICS PRACTICES

Dear Students,

As we embark on our summer holidays, it's essential to keep the learning momentum alive, even amidst the relaxation and leisure.

This homework encourages independent research, critical thinking, and analytical skills, preparing students for the challenges ahead.

The tasks included in this summer holiday homework are designed to engage students actively, sparking their curiosity and nurturing their intellectual growth. As students immerse themselves in these activities, they will not only enrich their knowledge of Computer but also develop essential skills that will serve them well beyond the confines of the classroom, fostering a lifelong love for learning and exploration.

1. Decide a project theme of AI basic application.
2. Prepare survey report of AI basic application.
3. Prepare a flowchart or algorithm to mention steps to develop an AI project.
4. Prepare a presentation to illustrate the project working.

Note:- Submit soft file of entire work after holidays



DARSHAN ACADEMY

SUMMER ASSIGNMENT 2024-25

GRADE XI, SUBJECT: – POLITICAL SCIENCE

“Successful and Unsuccessful people don't vary greatly in their abilities. They vary in their desires to reach their potential.”

Political Science begins and ends with State. In political science we study Constitution, Democracy, Thoughts, Law & order International Relations, Journalism and Various Political System. Theme of the Political science is the interpretation of Life; its Instrumental insight and understanding of Subtle, unformulated conditions. It ensures that student should acquire citizenship skills and engage as active citizen by appreciating human diversity. The content enriches the student's writing, communication, data analysis skills and develop knowledge about current and past political events. Let's enrich our knowledge.

General Instruction : Do all the activities on A4 sized sheet.

Submission after vacations in a folder with all the sheets

ACTIVITY 1: Prepare a creative poster on any of the following topics-

- ROLL NO 1-5 Fundamental Duties
- ROLL NO 6--10 Preamble of India
- ROLL NO 11- 15 Fundamental Rights anyone.
- ROLL NO 16- 20 Provisions taken from other contributions.
- ROLL NO 21- 25 Structure of Rural Self Government
- ROLL NO 26-30 Structure of Urban Self Government

ACTIVITY 2: Prime Minister, President and Speaker are prominent offices in Indian constitution. They are responsible for smooth functioning of democracy. To explore the history of above offices, prepare a booklet about them personalities who grace the office since independence till date. Each page should contain the relevant information about them i.e., photograph, name, tenure, x-factor etc.

- ROLL NO 1-10 Prime Ministers of India
- ROLL NO 10--20 Speakers of Lok Sabha
- ROLL NO 21-30 Presidents of India.

ACTIVITY 3: Critically analyse the following Electoral Reforms and write a newspaper article -

1. EVM MACHINES
2. NOTA
3. VVPAT
4. ELECTORAL BONDS

ACTIVITY 4: Draw ant two cartoon of your choice on A-4 size sheet either from newspaper or from NCERT book and write their interpretation (or issue raise in them) on next page.

ACTIVITY 5: Prepare a project file on 'INDIAN JUDICIAL SYSTEM' following topics must be covered in the file.

- ✓ Its Structure and Constitutional provisions related to job conditions.
- ✓ Powers of Supreme Court
- ✓ Method of selection of Judges (National Judicial appointment commission and collegium system,
- ✓ Meaning of Judicial Activism and evolution of PIL in India
- ✓ Critical analysis of judiciary in current scenario through the judgements passed by the Supreme court to control executive.

Project file must carry all essentials –

- ✓ Acknowledgement
- ✓ Certificate
- ✓ Index
- ✓ Content with related pictures, newspaper cuttings etc.
- ✓ Bibliography

WISHING YOU HAPPY AND PRODUCTIVE HOLIDAYS



DARSHAN ACADEMY

SUMMER ASSIGNMENT 2024-25

GRADE XI, SUBJECT: – PSYCHOLOGY

Psychology Class XI (2024-2025) Holidays Homework Instructions:

1. Pending class assignments to be completed.
2. Syllabus covered to be revised.
3. Introduction of the Practical to be written in fair.
4. submission Date: just after vacation.

Project work : To be done in Project / Case profile.

The students are required to undertake one compulsory project during this academic year as per CBSE guidelines. The project would involve the use of different methods of enquiry and related skills. The objective of this project is to familiarize the students with:

- The Goals of psychological enquiry.
- Steps involved in Conducting Scientific research.
- Some important methods: Observation, Experimental, Co -relational study, Interview, Case study, psychological tools: Tests and Questionnaires
- Analysis of data and its representation (such as Pie-charts, bar-diagram, cumulative frequencies).
- Learning Ethical issues in the study of psychological processes.

Students can take up any of the topics mentioned below:

1. Stigma around mental Health.
2. Stress during the times of Corona and it's management.
3. Impact of Bullying on the mental Health of victim.
4. Exploring Gender roles: Understanding among Individuals
5. Understanding Learning Disabilities.

* Topic selected to be informed to the concerned subject Teacher for approval.

General instructions to be followed:

1. The students can work in a group of 4.
2. Separate files to be submitted by all members.
3. Questionnaire method is compulsory to use.
4. Both Open ended and close ended questions to be included
5. Questionnaire should consist of Minimum 15 questions.
6. Transcripts of the Interview, if taken (face to face or telephonic) are compulsory.
7. Sample for data collection: Minimum 8 Individuals.

8. Gender Ratio to be strictly maintained.

The format of the project is as follows: To be done in Practical file.

- Page 1: Psychology Practical File (with School Name, Full name, class and section & roll no.)
- Page 2: Title of the Topic chosen.
- Page 3: Acknowledgment
- Page 4: Index

CHAPTER 1: Introduction

1. Steps in Conducting scientific research
2. Introduction to the chosen topic and
3. Related sub topics
4. Recent research in the concerned area .

CHAPTER 2: Methodology

1. Sample: Description of the sample and Preliminaries.
2. Tools Used:
 - 2.1. Introduction to Interview, advantages and disadvantages of interview method.
 - 2.2. Introduction to questionnaire, advantages and disadvantages of questionnaire method.

CHAPTER 3

- Results and data Analysis (using Graphical methods)

CHAPTER 4

- Discussion and conclusion. References Appendix
- Transcripts of the Interview
- Filled Questionnaires.

*Note : • Draft of the Questionnaire and discussion to be approved by the concerned subject Teacher.



DARSHAN ACADEMY

SUMMER ASSIGNMENT 2024-25

GRADE XI, SUBJECT: – PHYSICAL EDUCATION

Dear Students,

As we embark on our summer holidays, it's essential to keep the learning momentum alive, even amidst the relaxation and leisure.

This homework encourages independent research, critical thinking, and analytical skills, preparing students for the challenges ahead.

The tasks included in this summer holiday homework are designed to engage students actively, sparking their curiosity and nurturing their intellectual growth. As students immerse themselves in these activities, they will not only enrich their knowledge of Psychology but also develop essential skills that will serve them well beyond the confines of the classroom, fostering a lifelong love for learning and exploration.

Physical education Class XI (2024-2025) Holidays Homework Instructions:

1. Pending class assignments to be completed.
2. Syllabus covered to be revised.
3. Introduction of the Practical to be written in fair.
4. submission Date: just after vacation.

Project work

The students are required to undertake one compulsory project during this academic year as per CBSE guidelines. The project would involve the use of different methods of enquiry and related skills. The objective of this project is to familiarize the students with:

- ❖ Practical-1. Labelled diagram of 400mt Track and Field with computations, also make a flow chart of a track and field events.
- ❖ Practical-2 Research changing trends in sports and games in terms of changes in surface, wearable gears, equipment, technological advancements.
- ❖ Practical -3 Find out any one game/sport IOA recognized of your choice and research following topics:
 - a. History of the game
 - b. Fundamental skills
 - c. Terminologies
 - d. Famous players and awards
 - e. court/ground specifications
 - f. Rules and Regulations

g. Equipments

Art Integrated

Make a poster on Physical health, Mental health, social and emotional health. (Any one)

Physical activity

Take a part in any form of physical activity for one week (the activity can be any sports, simple jogging, walking, recreational activity, adventure sports etc.) after a week fill the table given below

*Name of the activity

*What motivated you to choose this activity?

*How do you feel after participating in this activity?

*Would you like to continue participation in this activity?

*If your response to the above question is Yes or No give a plausible reason.

Note: Holiday homework should be colourful and presentable.

Practical 1,2 and 3 will be colourful project file.

For Art Integrated project should be on A3 size.

Physical activity record should be in assignment copy.