

VIVEKANAND PUBLIC SCHOOL

HOLIDAY HOMEWORK Class XI

(Session 2024-25)

From Principal Desk

Dear Students and Parents,

As we embark on the summer vacation, I want to remind you to the importance of continued learning and growth during this time away from school.

To ensure that our students remain engaged and academically stimulated, we have assigned summer vacation homework for all classes. This homework is designed to reinforce concepts learned throughout the year and to prepare students for the upcoming academic term.

I urge all students to approach their summer homework with diligence and responsibility. Completing these assignments will not only enhance your academic skills but also help you start the new school year on the right foot.

Parents, your support in encouraging your children to complete their summer homework is invaluable. By working together, we can ensure that our students continue to thrive academically.

Should you have any questions or concerns regarding this summer vacation homework, please do not hesitate to reach out to your child's teacher or the school administration.

Wishing everyone a productive and enjoyable summer break!

Warm regards,

(Nancy Khanna)

Principal

Vivekanand Public School

GENERAL INSTRUCTIONS:

- Assignments should be done neatly on the **A4 ruled** sheets
- Projects files to be compiled in the ring file and it should be properly covered.
- Holiday Homework should be submitted by **5th July 2024**.
- Holiday Homework should be the **individual work** of the students and should be copied from anywhere.
- Projects should be **strictly** made on the guidelines prescribed.
- Projects should be submitted within **1st week of July**.

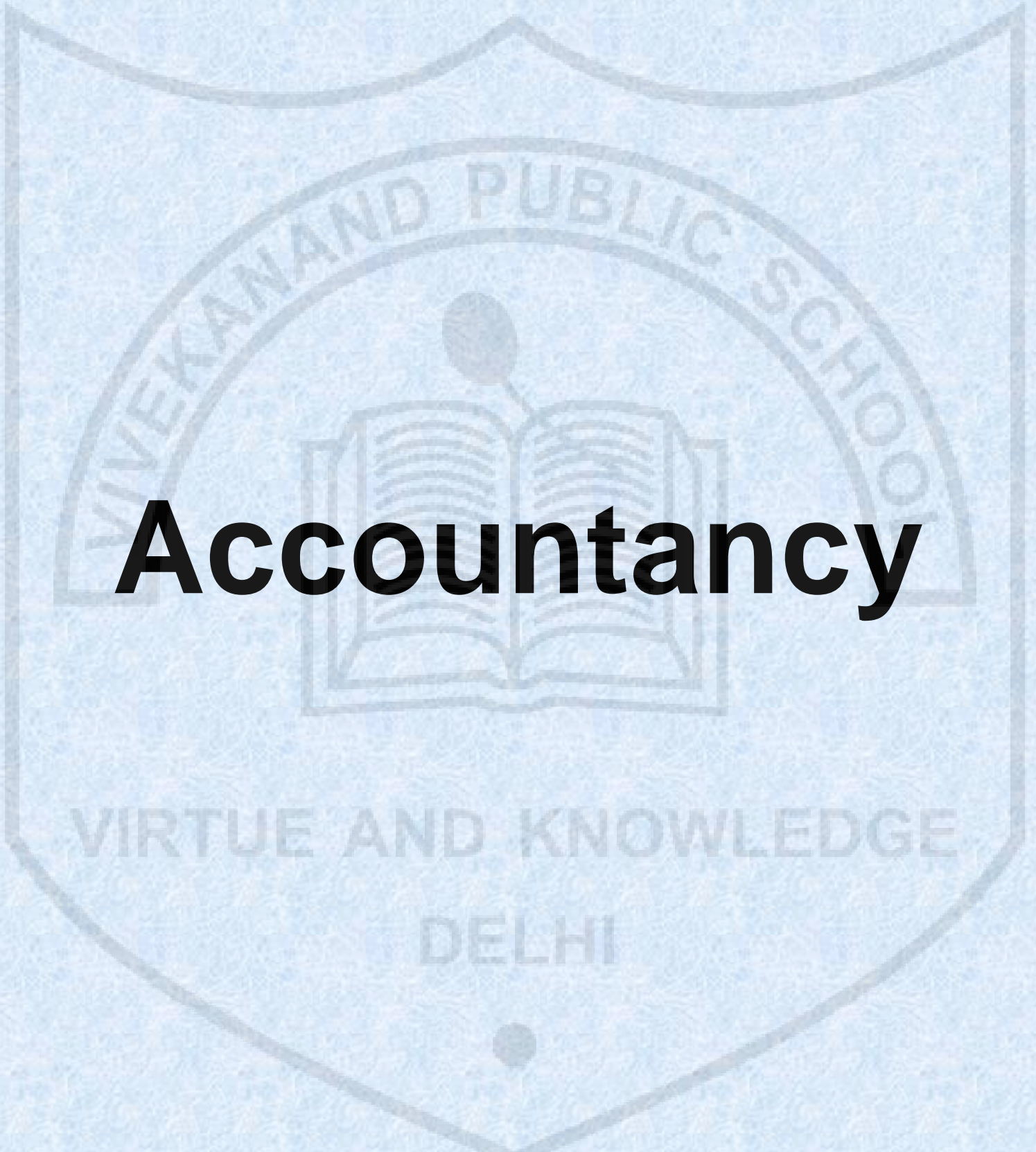
VIVEKANAND PUBLIC SCHOOL

Class XI

Holiday Homework (2024-25)

Contents

1. Accountancy
2. Business Studies
3. Biology
4. Chemistry
5. Computer Science
6. Economics
7. English
8. History
9. Mathematics
10. Physical Education
11. Physics
12. Political Science



Accountancy

VIRTUE AND KNOWLEDGE

DELHI

Assignment-1

1. What is meant by accounting?
2. Explain any three features of accounting.
3. Explain the objectives of accounting.
4. The process of accounting starts with and ends with
5. Accounting measures the business transactions in terms of units.
6. Explain any three advantages of accounting.
7. Explain the limitations of accounting.
8. users are groups outside the business entity, who uses the information to make decisions about the business entity.
9. Enumerate the informational needs of employee.
10. State the informational needs of Investors and potential investors.
11. Explain any three qualitative characteristics of accounting information.
12. What is Capital?
13. Give any two examples of 'Current Liabilities'.
14. Give any two examples of 'non-current assets'.
15. Give any two examples of 'Revenue Expenditure'.
16. What is meant by GAAP?
17. What is meant by Revenue Recognition Concept? Explain.
18. Discuss the concept-based on the premise 'do not anticipate profits but provide for all losses'.
19. Explain the 'Double entry system' as a system of recording transactions.
20. What is meant by 'Accounting Standards? Explain its two objectives.
21. State any three objectives of GST.
22. State any three features of GST.

Assignment-2

1. Which of the following is not a business transaction?
 - (a). Bought furniture of Rs.10,000 for business
 - (b). Paid for salaries of employees Rs.5,000
 - (c). Paid sons' fees from her personal bank account Rs.20,000
 - (d). Paid son's fees from the business Rs.2,000
2. Which is the last step of accounting as a process of information?
 - (a). Recording of data in the books of accounts
 - (b). Preparation of summaries in the form of financial statements
 - (c). Communication of information
 - (d). Analysis and interpretation of information
3. Which qualitative characteristic of accounting information is reflected when accounting information is clearly presented?
 - (a). Understandability
 - (b). Relevance
 - (c). Comparability
 - (d). Reliability
4. Use of common unit of measurement and common format of reporting promotes;
 - (a). Comparability
 - (b). Understandability
 - (c). Relevance
 - (d). Reliability
5. During the life-time of an entity accounting produce financial statements in accordance with which basic accounting concept:
 - (a) Conservation
 - (b) Matching
 - (c) Accounting period
 - (d) None of the above
6. When information about two different enterprises have been prepared presented in a similar manner the information exhibits the characteristic of:
 - (a) Verifiability
 - (b) Relevance
 - (c) Reliability
 - (d) None of the above
7. A concept that a business enterprise will not be sold or liquidated in the near future is known as:
 - (a) Going concern
 - (b) Economic entity
 - (c) Monetary unit
 - (d) None of the above
8. The primary qualities that make accounting information useful for decision-making are:
 - (a) Relevance and freedom from bias
 - (b) Reliability and comparability
 - (c) Comparability and consistency

(d) none of the above

9. If a firm believes that some of its debtors may 'default', it should act on this by making sure that all possible losses are recorded in the books. This is an example of the _____ concept.

(a) Going concern Concept

(b) Cost Concept

(c) conservatism Concept

(d) Accounting Period Concept

10. In accounting, recording is made of

(a) Only financial transactions

(b) Only non-financial transactions

(c) Financial and non-financial transactions

(d) Personal transactions of the proprietor

11. IGST is payable when the supply is -----

(a) Inter –state

(b) Intra-state

(c) Intra-UT

(d) All of the above

12. Which of the following is capital expenditure?

(a) Wages

(b) Wages paid for building construction

(c) repair expenses of building

(d) advertisement expenses

13. External users of accounting information are:

(a) Researchers

(b) Government

(c) Tax authorities

(d) All of the above

14. Machinery is an example of –

(a) Current Asset

(b) Non-Current Asset

(c) Current Liability

(d) Non-Current Liability

15. Which one of the following is not a branch of accounting?

(a) Financial Accounting

(b) Cost Accounting

(c) Management Accounting

(d) None of the Above



Business Studies

VIRTUE AND KNOWLEDGE

DELHI

1. Prepare project file.

PROJECT WORK:

Field Visit

The objective of introducing this project among the students is to give a first hand experience to them regarding the different types of business units operating in their surroundings.

Visit to a whole sale market: vegetables/fruits/flowers/grains/garments etc.

The students are required to observe the following:

- a) Sources of merchandise.
- b) Local market practices.
- c) Any linked up businesses like transporters, packagers, money lenders, agents, etc.
- d) Nature of the goods dealt in.
- e) Types of buyers and sellers.
- f) Mode of the goods dispersed, minimum quantity sold, types of packaging employed.
- g) Factors determining the price fluctuations.
- h) Seasonal factors (if any) affecting the business.
- i) Weekly/ monthly non-working days.
- j) Strikes, if any- causes thereof.
- k) Mode of payments.
- l) Wastage and disposal of dead stock.
- m) Nature of price fluctuations, reason thereof.
- n) Warehousing facilities available\availed.
- o) Any other aspect.

OR

Visit to a Departmental store

The students are required to observe the following:

- a) Different departments and their lay out.
- b) Nature of products offered for sale.
- c) Display of fresh arrivals.
- d) Promotional campaigns.
- e) Spaces and advertisements.
- f) Assistance by Sales Personnel.
- g) Billing counter at store – Cash, Credit Card/ Debit Card, swipe facility. Added attractions and facilities at the counter.

h) Additional facilities offered to customers

i) Any other relevant aspect.

OR

Visit to a Mall

The students are required to observe the following:

a) Number of floors, shops occupied and unoccupied.

b) Nature of shops, their ownership status

c) Nature of goods dealt in: local brands, international brands,

d) Service business shops- Spas, gym, saloons etc.

e) Rented spaces, owned spaces,

f) Different types of promotional schemes.

g) Most visited shops.

h) Special attractions of the Mall- Food court, Gaming zone or Cinema etc.

i) Innovative facilities.

j) Parking facilities

Presentation and Submission of Project Report

Project submission date:

05-07-2024

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

1. The total length of the project will be of 25 to 30 pages.

2. The project should be handwritten.

3. The project should be presented in a neat folder.

4. The project report should be developed in the following sequence-

*Cover page should include the title of the Project, student information, school and year.

*List of contents.

*Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped).

*Introduction.

*Topic with suitable heading.

*Planning and activities done during the project, if any.

*Observations and findings of the visit.

*Conclusions (summarized suggestions or findings, future scope of study).

*Photographs (if any).

*Appendix

*Signature of the teacher.

ASSIGNMENT 1

Do the following questions in your register:

Chapter 1

Evolution and fundamentals of business

1. _____ risk means change of loss with possibility of Gain
2. There ward a businessman gets bearing risk is called _____
3. Which of the following is an economic activity?
 - a. A housewife cooking food for her family
 - b. A person selling cold water on the pavement
 - c. A young boy driving his motorcycle in the city
 - d. An old man offering prayers in a temple
4. Fishing is what type of industry?
 - a. primary industry
 - b. secondary industry
 - c. Commercial industry
 - d. Tertiary industry
5. Define business risk.
6. What do you mean by auxiliaries to trade?
7. _____ facilitate buying and selling of goods and services.
8. What is Hundi? What were the different types of Hundis used by traders in ancient times?
9. Ganga Ltd. Is a popular company manufacturing watercoolers. The company had been earning huge profits for many years. However , in 2018 the company's profits declined. After a thorough investigation, the following reasons were presented for the decline of profits. –
 - i. increase in competition
 - ii theft of cash and goods by the employeesIdentify and explain the two causes of decline in profits.s
10. Explain various types of manufacturing industries with examples.

ASSIGNMENT 2

Do the following questions:

Chapter-2

Forms of Business Organizations

Question 1 : Which of the following is an advantage of a sole proprietorship?

- (a) ease of starting a business.
- (b) being your own boss.
- (c) pride of ownership.
- (d) all of the above.

Question 2: The Head of the joint Hindu family business is called

- (a) Manager
- (b) Proprietor
- (c) Karta
- (d) Director

Question 3: Profits do not have to be shared. This statement refers to

- (a) Company
- (b) Sole proprietorship
- (c) Joint Hindu family business
- (d) Partnership

Question 4: The karta in Joint Hindu family business has

- (a) No liability for debts
- (b) Unlimited liability
- (c) Joint liability
- (d) Limited liability

Question 5: A partner whose association with the firm is unknown to the general public is called

- (a) Active partner
- (b) Sleeping partner
- (c) Nominal partner
- (d) Secret partner

Question 6: State the minimum & maximum members in partnership.

Question 7 : Which act governs the partnership firms in India?

Question 8 : In which form of organisation is a trade agreement made by one owner binding on the others? Give reasons to support your answer.

Question 9: The business assets of an organisation amount to ₹50,000 but the debts that remain unpaid are ₹80,000. What course of action can the creditors take if.

(a) The organisation is a sole proprietorship firm.

(b) The organisation is a partnership firm with Anthony and Akbar as partners. Which of the two partners can the creditors approach for repayment of debt? Explain giving reasons.

Question 10 : Mr. Sumit owns an ancestral house in Chennai. On the advise of his friend he converts it into a lodge after renovation. The revenue from the lodge helps to supplement his income considerably. On his death the property (lodge) is inherited by his three sons in order of their age namely, Mr. Sham, Mr. Anil and Mr. Satish who carry on with the business under the form of Joint Hindu Family Business.

(i) Which law governs Joint Hindu Family Business.

(ii) Who amongst the three brothers has the right to exercise control over the family business?

(iii) Comment upon the liability of the three brothers.



Biology

VIRTUE AND KNOWLEDGE

DELHI

- Prepare a 3-D or working model based on your syllabus.
- Prepare your practical record and complete all practical in it.
- Complete the given assignments in homework notebook.

Assignment 1

Q1. Explain the rules for Binomial nomenclature with the help of any two examples.

Q2. What are the advantages of using scientific names?

Q3. Mention the distinguishing characteristics of cyanobacteria.

Q4. Differentiate between.

i) deuteromycetes and ascomycetes.

ii) Virus and viroid's

iii) Photobiont and mycobiont

Q5. Define red tides, diatomaceous earth, chemoautotrophs, karyogamy

Q6. Draw a well labelled diagram of a virus that has

- a) Single stranded RNA as genetic material, b) double stranded DNA as genetic material, c) Euglena, d) paramecium

Assignment 2

Q1. Explain the following terms- a) Protonema, b) Prothallus, c) Gemmae, d) Oogamy, e) Heterospory, f) sporophyll

Q2. Differentiate between-a) Red Algae and Brown Algae, b) Liverwort and Mosses

Q3. Describe the identifying characteristics of Bryophyta, Pteridophyte and Gymnosperms.

Q4. Prothallus of the fern is monoicous, Justify.

Q5. What are hydrocolloids? Give two examples.

Q6 Name two algae that yield agar. Mention two uses of agar.

Q7 Give reason- why are bryophytes called amphibians of the plants?

Q8. What is meant by Cytotaxonomy? How is it different from numerical taxonomy?

Qs9. What is 5 Kingdom plan of classification? Explain with the characteristics of each Kingdom.

Qs 10. Mention few importance of bacteria & fungi.

Qs11. What are lichens? Explain.

Qs12. Write down scientific name of the followings : Wheat, Tiger, Frog, earthworm, cockroach, Rose, China rose, lizard, onion & potato.



Chemistry

VIRTUE AND KNOWLEDGE

DELHI

(1) Draw the **MIND MAPS** of the following Chapters:

- a. Chapter – 1 Some Basic concepts of Chemistry
- b. Chapter – 2 Structure of Atom

(2) Make well labelled **PERIODIC TABLE** on Chart paper.

(3) Prepare a **3-D Model** of at least **10 LABOURATORY APPRATUS** using Lab Manual.

(4) Complete the following Assignment in Holiday Homework copy.

Assignment - 1

1. Which one Fe^{3+} , Fe^{2+} is more paramagnetic and why?
2. Why is 4s- orbital filled before 3d-orbital?
3. How many electrons in an atom have the quantum number $n=4$, $l=0$?
4. Why is the electronic configuration of oxygen written as $1s^2 2s^2 2p_x^2 2p_y^1 2p_z^1$ and not $1s^2 2s^2 2p_x^2 2p_y^2 2p_z^1$?
5. What is the angular momentum of an electron in (i) 2s- orbital (ii) 4f-orbital?
6. List the value of n and l for the following orbitals.
(i) 3s (ii) 4p (iii) 4f (iv) 3d
7. Calculate the wavelength of an electron moving with a velocity of $2.05 \times 10^7 \text{ ms}^{-1}$. Also calculate wave number of the electron.
8. (i) State the principle that suggest the presence of only two electrons in an orbital.
(ii) Account for the following.
 - a) Chromium has configuration $3d^5 4s^1$ and not $3d^4 4s^2$.
 - b) Bohr's orbits are called stationary orbits or states.

Assignment - 2

1. Light of wavelength 1281.8 nm is emitted when an electron of H-atom drops from 5th to 3rd energy levels.

Calculate the wavelength of photon emitted when falls from 3rd to ground level.

2. How much energy is required to ionise a H-atom if the electron occupies n=5 orbit? Compare your answer with the ionisation enthalpy of H-atom (energy required to remove the electron from n=1 orbit).

3. (i) Calculate the wavelength of an electron moving at $3.0 \times 10^{10} \text{ cms}^{-1}$.

(ii) An electron is moving with a kinetic energy of $2.275 \times 10^{-25} \text{ J}$. Calculate its de-Broglie wavelength.

4. (i) The effect of uncertainty principle is significance only for motion of microscopic particles and is negligible for the macroscopic particles. Justify the statement with the help of a suitable answer.

(ii) Why is +2 Oxidation state of Mn (25) quite stable, while the same is not true for Fe (26)?

5. If 4 g of NaOH dissolves in 36 g of H₂O, calculate the mole fraction of each component in the solution. Also, determine the molarity of solution (specific gravity of solution is 1 g mL^{-1}).

6. The reactant which is entirely consumed in reaction is known as limiting reagent. In the reaction $2A + 4B \rightarrow 3C + 4D$, when 5 moles of A react with 6 moles of B, then

(i) which is the limiting reagent?

(ii) calculate the amount of C formed?

7. A compound contains 4.07% hydrogen, 24.27% carbon and 71.65% chlorine. Its molar mass is 98.96 g. What are its empirical and molecular formulae?

8. Calculate:

(i) Mass in gram of 5.8 mol N₂O

(ii) Number of moles in 8.0 g of O₂

(iii) Molar mass if 11.2 L at STP weigh 8.5 g

9. Calculate the number of moles:

(i) 5.0 L of 0.75 M Na₂CO₃

(ii) 7.85 g of Fe

(iii) 34.2 g of sucrose (C₁₂H₂₂O₁₁)



Computer Science

VIRTUE AND KNOWLEDGE

DELHI

8. The 1's complement of $(1000)_2$ is
(a) 0111 (b) 0101 (c) 1000 (d) 0001
9. $(11010011)_2 = (?)_{16}$
(a) D316 (b) A316 (c) B316 (d) D216
10. $(A)_{16} = (\underline{\quad})_2$
a) 1010 b) 1100 c) 11000 d) 10101

Short Answer Questions:

1. What is ASCII Code?
2. What is the significance of Unicode?
3. Discuss UTF encoding scheme?
4. What is the utility of ISCII encoding scheme?
5. What is the use of encoding scheme?

VIRTEUE AND KNOWLEDGE
DELHI

Assignment -2

- 1 Name any two open source operating system.
2. List out the various parts of CPU.
- 3 Give Examples of High Level language
- 4 Name any two compiler based language
- 5 Name any two utilities available with Windows
6. Explain octal and hexadecimal number.
7. Explain decimal and binary number.
8. Do as directed :
 - a) Convert the Decimal number 481 to its Binary equivalent.
 - b) Convert Binary number 100101101.001 to its decimal equivalent.
 - c) Convert Octal number 3214 into its Binary equivalent.
9. Do as directed :
 - a) Convert the Hexadecimal number 3BC into its Binary equivalent
 - b) Convert the Binary number 10011010.010101 to its Hexadecimal equivalent.
 - c) Convert the Decimal number 345 into Octal number.
10. Do as directed
 - a) Convert the Decimal number 536 into Hexadecimal number.
 - b) Convert the Octal number 1246 into Hexadecimal number.
 - c) Convert the Hexadecimal number BAFE into Octal number.
 - d) Convert the Octal number 3576 to Decimal.
 - e) Convert the Hexadecimal number B5C1 to Decimal.



Economics

VIRTUE AND KNOWLEDGE

DELHI

Guidelines for Project Work in Economics (Class XI)

The objectives of the project work are to enable learners to:

- 1) probe deeper into theoretical concepts learnt in classes XI and XII
- 2) analyse and evaluate real world economic scenarios using theoretical constructs and
- 3) arguments demonstrate the learning of economic theory
- 4) follow up aspects of economics in which learners have interest
- 5) develop the communication skills to argue logically

The expectations of the project work are that:

learners will complete only ONE project in each academic session project should be of 3,500-4,000 words (excluding diagrams & graphs), preferably

hand-written, it will be an independent, self-directed piece of study

Role of the teacher:

The teacher plays a critical role in developing thinking skills of the learners. A teacher should:

help each learner select the topic based on recently published extracts from the news media, government policies, RBI bulletin, NITI Aayog reports, IMF/World Bank reports etc., after detailed discussions and deliberations of the topic

play the role of a facilitator and supervisor to monitor the project work of the learner through periodic discussions

guide the research work in terms of sources for the relevant data educate learner about plagiarism and the importance of quoting the source of the

information to ensure authenticity of research work prepare the learner for the presentation of the project work

arrange a presentation of the project file

Scope of the project:

Learners may work upon the following lines as a suggested flow chart:

- Choose a title/topic
- Collection of the research material/data
- Organization of material/data
- Present material/data
- Analysing the material/data for conclusion
- Draw the relevant conclusion
- Presentation of the Project Work

Expected Checklist:

Introduction of topic/title

Identifying the causes, consequences and/or remedies

Various stakeholders and effect on each of them

Advantages and disadvantages of situations or issues identified

Short-term and long-term implications of economic strategies suggested in the course of research Validity, reliability, appropriateness and relevance of data used for research work and for presentation in the project file

Presentation and writing that is succinct and coherent in project file

Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc.

Mode of presentation/submission of the Project:

At the end of the stipulated term, each learner will present the research work in the Project File

to the External and Internal examiner. The questions should be asked from the Research Work/ Project File of the learner. The Internal Examiner should ensure that the study submitted by the learner is his/her own original work. In case of any doubt, authenticity should be checked and verified.

Marking Scheme :

Marks are suggested to be given as –

S. No. Heading

Marks Allotted

1.Relevance of the topic - 3

2.Knowledge Content/Research Work-6

3.Presentation Technique-3

4.Viva-voce - 8

Total = 20 Marks

Suggestive List of Projects:

Class XI

Effect on PPC due to various government policies

Invisible Hand (Adam Smith)

Opportunity Cost as an Economic Tool

(taking real life situations)

Effect of Price Change on a Substitute Good

(taking prices from real life visiting local market)

Effect on equilibrium Prices in Local Market

(taking real life situation or recent news)

Effect of Price Change on a Complementary

Good (taking prices from real life visiting local market)

Solar Energy, a Cost Effective Comparison with Conventional Energy Sources

Bumper Production- Boon or Bane for the Farmer

Any other newspaper article and its evaluation on basis of economic principles

Any other topic

VIRTUE AND KNOWLEDGE

DELHI

Assignment-1

Q1. Give two characteristics of resources.

Q2. Which of the following statement is true ? (Multiple choice question)

- a. PPC shows various combinations giving same level of satisfaction.
- b. PPC shows various combinations of two goods which an economy can produce with given amount of technology and resources.
- c. PPC is typically of convex shape.
- d. An economy always operate on PPC.

Q3. State the meaning of marginal rate of transformation.

Q4. Which central problem of the economy deals with distribution of income?

Q5. An example of “positive” economic analysis would be: (Multiple Choice Question)

- a. An analysis of the relationship between the price of food and the quantity purchased.
- b. Determining how much income each person should be guaranteed.
- c. Determining the fair price for goods.
- d. Deciding how to distribute the output of the economy.

Q6. State any two problems of allocation of resources.

Q7. Which branch of economics is also referred to as “Price Theory”?

Q8. Identify the correct statement (Multiple choice Question)

- a. Typical shape of PPC is convex.
- b. ‘How to produce’ is a problem in populated nations only.
- c. Price determination is studied under micro economics.
- d. Increase in employment will shift PPC ‘rightward’.

Q9. In short run the price of the commodity at least be equal to (Multiple Choice Question)

- a. Marginal Cost b. Average Cost c. Average Variable Cost d. Average Fixed Cost

Q10. The nation has two alternatives of producing $100X + 200Y$ or $102X + 196Y$ from its given resources. The nation chooses the second. What is the marginal opportunity cost of producing X:

(Multiple Choice Question)

- a. $4Y$ b. $3Y$ c. $2Y$ d. $1Y$

Q11. Choice is created by

- a. Unlimited resources b. Need Urgency
- c. Scarcity of resources d. All

Q12. The following is not the cause of the central problems faced by an economy (Multiple Choice Question)

- a. Technology Change
- b. Unlimited human wants
- c. Scarce resources
- d. Alternative use of resources

Q13. What is the difference between MOC_{xy} and MOC_{yx} ?

Q14. Given the PPC for T-shirt on X axis and cell phones on Y axis: (Multiple Choice Question)

If improved technology is used for the production of T-shirts, the shape of new PPC will be:

- a. PPC rotates on X-axis
- b. PPC rotates on Y-axis
- c. PPC will shift towards right
- d. None of the above

Q15. A typical PP curve is downward sloping concave because : to produce more of one good, output of the other good must be reduced (Multiple Choice Question)

- a. At increasing rate
- b. At decreasing rate
- c. At constant rate
- d. Initially at decreasing rate and then at increasing rate.

(ANSWER 16 TO 35 = 3 MARKS / 4 MARKS)

Q16. Answer the following questions with reasons in short (without diagram)

- a. what will be the effect of employment generation programmes by government on PPC
- b. what will be the long term effect of goods and services tax (GST) on PPC
- c. what will be the effect on PPC due to decrease in exports due to global slowdown.

Q17. Assuming that no resources is equally efficient in the production of all goods, mention the name of the curve which shows production possibilities of the economy. Explain its properties also.

Q18. Use a production possibility frontier to describe the idea of “efficiency”

Q19. Due to Trump’s visa policy, many Indian IT professionals are returning back to India. How will the above situation affect the PPC of Indian economy? Give reasons.

Q20. Explain difference between positive and normative economy

Q21. Complete the following table. Also comment on the shape of PPC.

GOOD A	GOOD B	MOC
0	14	-
1		1

2		2
3		3
4		6

Q22. War in Syria has led to a great loss of life and property to the nation. How is the PPC of the nation affected? Also mention one way in which the world can help the suffering nation.

Q23. Growth and Equality are conflicting goals in developing nations like India. Comment.

Q24. Explain the problem of “For Whom To Produce”?

Q25. Explain MRT in context of PPC with schedule and diagram.

Q26. How would ‘Make in India’ campaign affect PPC ?

Q27. Give assumptions of production possibility curve.

Q28. There has been a rise in Foreign Direct Investment into India in the last two years. How do you think it will affect the transformation curve of India’s economy ?

Q29. An economy produces only two goods, mobile phones and cars. The technology to produce cars improves. How will it affect the production possibility frontier? Use diagram.

Q30. Why is a typical production possibility curve concave ?

Q31. Differentiate between:

- a. movement from a point inside the PPC to a point on the PPC.
- b. movement from one point to another point on same PPC.

Q32. Defend or refute the statement : An economy always produces on, but not inside a PPC.

Q33. Explain the central problem of :

- a. What to Produce
- b. How to produce

Q34. Differentiate between Micro and Macro economics with examples.

Q35. ‘ Bihar experienced one of the worst flood in 3 decades.’ Using diagram explain the impact of the above situation on PPC of the state.

ASSIGNMENT - 2

Q1. Primary data are

- a. Original data
- b. Already collected
- c. Organised data
- d. None of these

Q2. Data collected on religion from the census reports are:

- a. Secondary Data
- b. Primary Data
- c. Sample Data
- d. Either (a) or (b)

Q3. Census method is

- a. Economical
- b. Suitable where the area of enquiry is wide
- c. Suitable where units of the universe are homogeneous
- d. Suitable where all units of the universe are not homogeneous

Q4. Data collected from 'The Times of India' is an example of:

- a. Primary Data
- b. Secondary Data
- c. Census
- d. None of these

Q5. The data collected on the height of a group of students after recording their heights with measuring tape are:

- a. Primary Data
- b. Continuous Data
- c. Discrete Data
- d. Secondary Data

Q6. A survey that includes all units of population is known as survey.

Q7. Error which occur due to non-response from the respondents is an example of

Q8. Quota sampling is a sampling.

Q9. Data obtained from published or unpublished sources is known as Data

Q10. A is a person who buys goods to satisfy his/her wants.

Q11. A person who works for some other person is called

Q12. Resources are in supply and also have

Q13. Scarcity of resources applies to all:

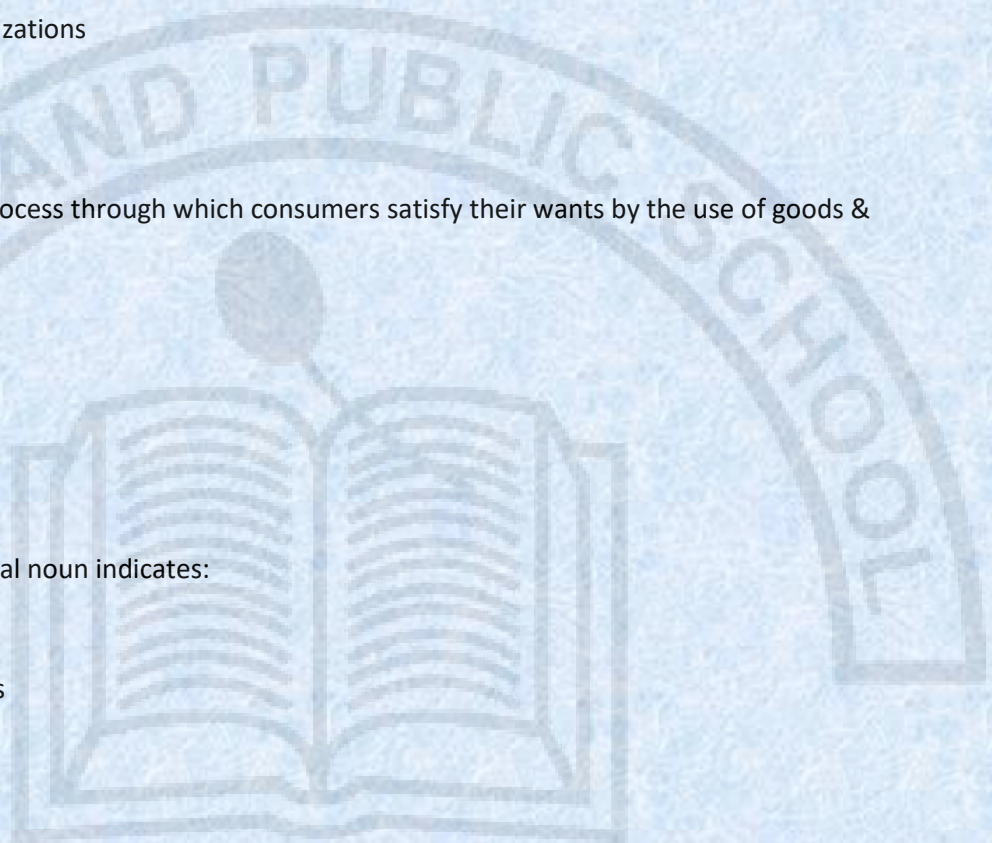
- a. Individuals b. Organizations
- c. Countries
- d. All of these

Q14. is the process through which consumers satisfy their wants by the use of goods & services.

- a. Consumption
- b. Production
- c. Distribution
- d. None of these

Q15. Statistics as a plural noun indicates:

- a. Statistical Methods
- b. Descriptive Statistics
- c. Statistical Data
- d. Inductive Statistics



VIRTUE AND KNOWLEDGE
DELHI



English

VIRVUE AND KNOWLEDGE

DELHI

1.Project Work

LIST OF TOPICS/THEMES

(Choose any one)

- The Population Control Bill is the Right Step Forward.
- Unrestrained Freedom of Speech and Expression is the Pillar of Progressive Society.
- Fulfilment of new woman in India is a Myth.
- Where Humanity Fails, Pandemic Occurs
- Peace is Both a Right and Duty.
- Designer Babies- a Boon or Bane
- Should Healthcare and Medicine be Provided Free by the Government?
- Childhood Vaccinations should be Compulsory.
- Populism is a threat to Democracy.
- People should not have more than two children.
- People are the Gender They Choose.
- Euthanasia-a Right to Death
- Is Masculinity a Problem to overcome?
- Juveniles should be tried and tested as adults.
- Objectification of women in society.
- There is a need to restore Net Neutrality.
- Legalize the Sale of Human Organs.
- Paperless Currency-the future of the World Economy.
- Sports Scenario of India- Do players or owners make a team?
- Should we determine the team greatness with championship?
- OTT platform vs. Conventional Cinema
- NEP 2020

• **PROJECT LAYOUT**

- **SHEET 1-** Cover Page with title, school details, details of students
- **SHEET 2-**Statement of purpose/ Objective/ Goal
- **SHEET 3-** Certificate of Completion under the guidance of the teacher.
- **SHEET 4- Action Plan**
3-4 lines about the project.
Research Tools and Methodology.
Supporting Material-AV Aids/ PPT
- **SHEET 5-** Introduction of the Project.
- **SHEET 6- Body of the Project**
Supporting Material
Questionnaire
Case Study
Assignments
Survey Report
Transcripts

Articles
Interview

- **SHEET 7-REPORT**
800–1000-word essay/script/report
- **SHEET 8-STUDENT/GROUP REFLECTION**
100-150 words paragraph about the experience and learning outcomes
- **SHEET 9-PHOTOGRAPHS**
- **SHEET 10- LIST RESOURCES/ BIBLIOGRAPH**

2. The Sustainable Development Goals (SDGs) provide a universal framework for addressing pressing global challenges such as poverty, inequality, and climate change. By guiding collective action, they promote sustainable development that balances economic growth with social inclusion and environmental protection, ensuring a better future for current and future generations.

- Design a poster based on your assigned Sustainable Development Goal (SDG), showcasing its significance and potential impact, aligning with your roll number assigned."
 - : Roll No. 1-4: SDG 1 - No Poverty
 - Roll No. 5-8: SDG 2 - Zero Hunger
 - Roll No. 9-12: SDG 3 - Good Health and Well-being
 - Roll No. 13-16: SDG 4 - Quality Education
 - Roll No. 17-20: SDG 5 - Gender Equality
 - Roll No. 21-24: SDG 6 - Clean Water and Sanitation
 - Roll No. 25-28: SDG 7 - Affordable and Clean Energy
 - Roll No. 29-32: SDG 8 - Decent Work and Economic Growth
 - Roll No. 33-36: SDG 9 - Industry, Innovation, and Infrastructure
 - Roll No. 37-40: SDG 10 - Reduced Inequalities
 - Roll No. 41-44: SDG 13 – Climate Action
 - Roll No. 45-48: SDG 14- Life below water

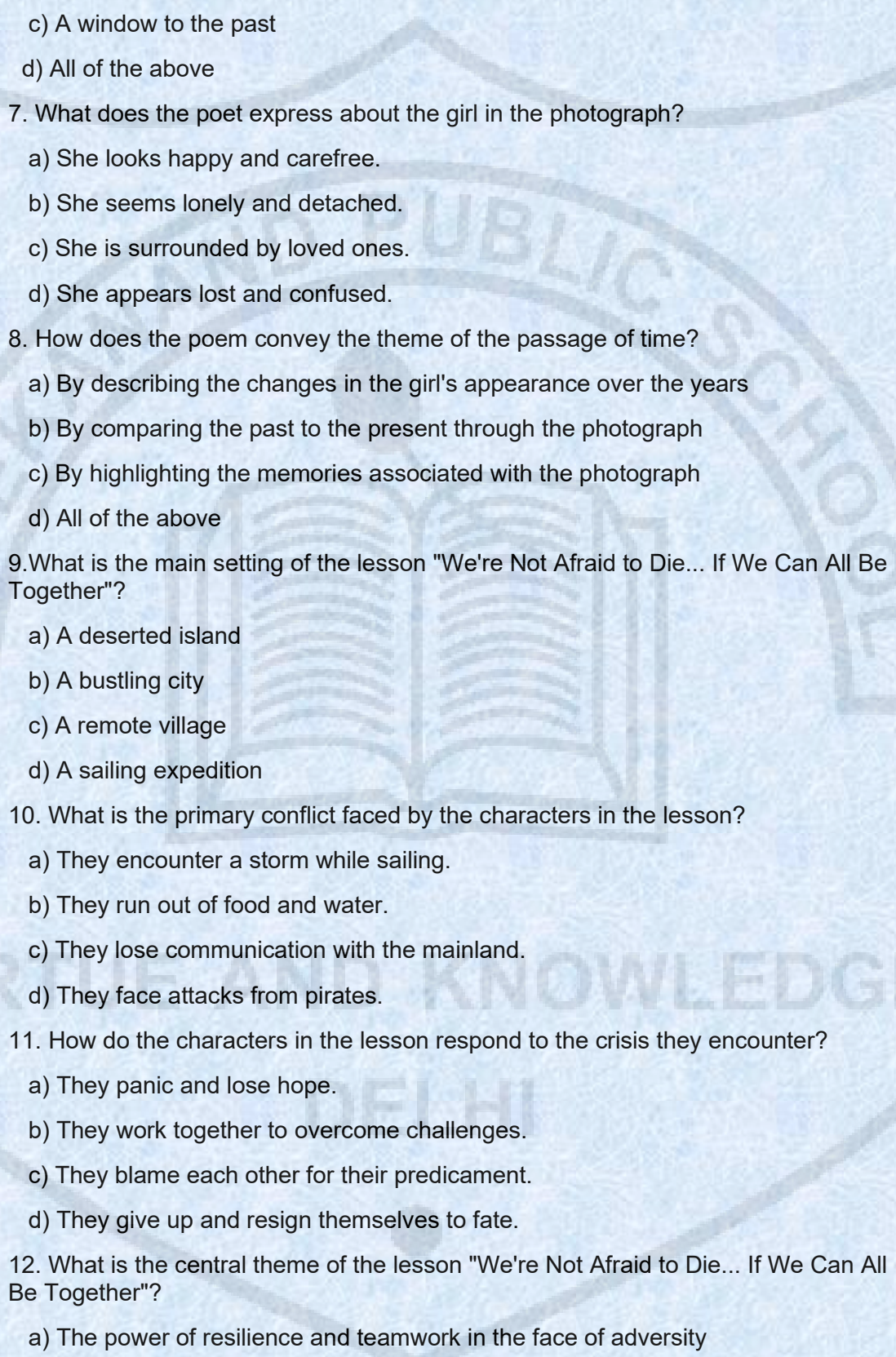
VIRTUE AND KNOWLEDGE
DELHI

Assignment

Choose the correct option

1. What is the narrator's relationship with their grandmother?
 - a) Distant
 - b) Estranged
 - c) Close
 - d) Indifferent
2. Why did the narrator's grandmother stop going to school with them?
 - a) She became too old to accompany them.
 - b) The school moved away from the temple.
 - c) The narrator started attending an English school.
 - d) She lost interest in education.
3. What activity did the narrator's grandmother enjoy in the afternoon?
 - a) Playing music
 - b) Feeding sparrows
 - c) Reading scriptures
 - d) Spinning yarn
4. What change did the narrator notice in their grandmother upon returning from abroad?
 - a) She had become more talkative.
 - b) She had stopped praying.
 - c) She had grown physically weaker.
 - d) She continued her routine but seemed unchanged.
5. How did the narrator's grandmother spend her last moments?
 - a) Singing and dancing
 - b) Praying and telling her beads
 - c) Reading scriptures aloud
 - d) Playing music on an old drum
6. What is the central theme of the poem "A Photograph" by Shirley Toulson?
 - a) The power of memory
 - b) The beauty of old photographs
 - c) The passage of time and loss
 - d) The significance of family albums

In the poem, what is the photograph described as?

- 
- a) A treasure trove of memories
b) A snapshot frozen in time
c) A window to the past
d) All of the above
7. What does the poet express about the girl in the photograph?
- a) She looks happy and carefree.
b) She seems lonely and detached.
c) She is surrounded by loved ones.
d) She appears lost and confused.
8. How does the poem convey the theme of the passage of time?
- a) By describing the changes in the girl's appearance over the years
b) By comparing the past to the present through the photograph
c) By highlighting the memories associated with the photograph
d) All of the above
9. What is the main setting of the lesson "We're Not Afraid to Die... If We Can All Be Together"?
- a) A deserted island
b) A bustling city
c) A remote village
d) A sailing expedition
10. What is the primary conflict faced by the characters in the lesson?
- a) They encounter a storm while sailing.
b) They run out of food and water.
c) They lose communication with the mainland.
d) They face attacks from pirates.
11. How do the characters in the lesson respond to the crisis they encounter?
- a) They panic and lose hope.
b) They work together to overcome challenges.
c) They blame each other for their predicament.
d) They give up and resign themselves to fate.
12. What is the central theme of the lesson "We're Not Afraid to Die... If We Can All Be Together"?
- a) The power of resilience and teamwork in the face of adversity
b) The unpredictability of nature and its impact on human lives

- c) The importance of preparedness and planning in risky situations
- d) The significance of family bonds and love in times of crisis

13. What is the narrator's relationship with Mourad in "Summer of the Beautiful White Horse"?

- a) They are cousins.
- b) They are best friends.
- c) They are neighbours.
- d) They are classmates.

14. What is the central conflict in the story "Summer of the Beautiful White Horse, "?

- a) Mourad steals a white horse.
- b) The narrator tries to stop Mourad from stealing a horse.
- c) The narrator struggles to understand Mourad's actions.
- d) The villagers accuse the narrator's family of stealing a horse.

15. What does Mourad do with the stolen horse?

- a) He rides it around the village to show it off.
- b) He sells it to buy food for his family.
- c) He hides it in a secret place.
- d) He returns it to its rightful owner.

17. How does the narrator feel about Mourad's actions?

- a) He is proud of Mourad's bravery.
- b) He is shocked and disappointed.
- c) He is indifferent and does not care.
- d) He supports Mourad's decision to steal the horse

18. Select the correctly edited sentence:

- a) She will finish her project tomorrow.
- b) She finishes her project tomorrow.
- c) She finished her project tomorrow.
- d) She has finished her project tomorrow.

19. Choose the sentence with the correct tense:

- a) They have going to the beach every summer.
- b) They going to the beach every summer. c) They have been going to the beach every summer.
- d) They go to the beach every summer.

20. Identify the sentence with the correct tense:

- a) He is study for his exam right now.
- b) He studies for his exam right now.
- c) He studying for his exam right now.
- d) He studied for his exam right now

21. Fill-in-the-Blanks with the correct option

1. By the time I _____ (arrive) at the party, everyone _____ (leave).

- a) arrived / leave
- b) arrived / had left
- c) arrives / leave
- d) arrives / had left

2. She _____ (not/start) cooking until her friends _____ (arrive).

- a) not start / arrive
- b) not starting / arrived
- c) not started / arrived
- d) not started / arrives

3. I _____ (work) on this project for two hours already. a) worked

- b) am working
- c) have been working
- d) works

Answer the following in 30 to 40 words each

1. How does the narrator describe their grandmother's appearance and demeanour throughout the story?
2. Describe the grandmother's devotion to her religious practices and rituals as depicted in the text.
3. Write a short note about the character Khosrove.
4. What happened after Aram rode the horse alone?
5. Explain: The sea holiday was her past, mine is her laughter.
6. When and where were the three cousins photographed?
7. Describe the first leg of the narrator's journey.
8. How did the narrator hurt himself?

Answer the given questions in 100 - 150 words

1. Give a brief character—sketch of Khushwant Singh's grandmother based on the portrait of a Lady.

2. What difference did you notice between the reactions of the adults and the children when faced with danger?

3. How does the author describe the character of Mourad?

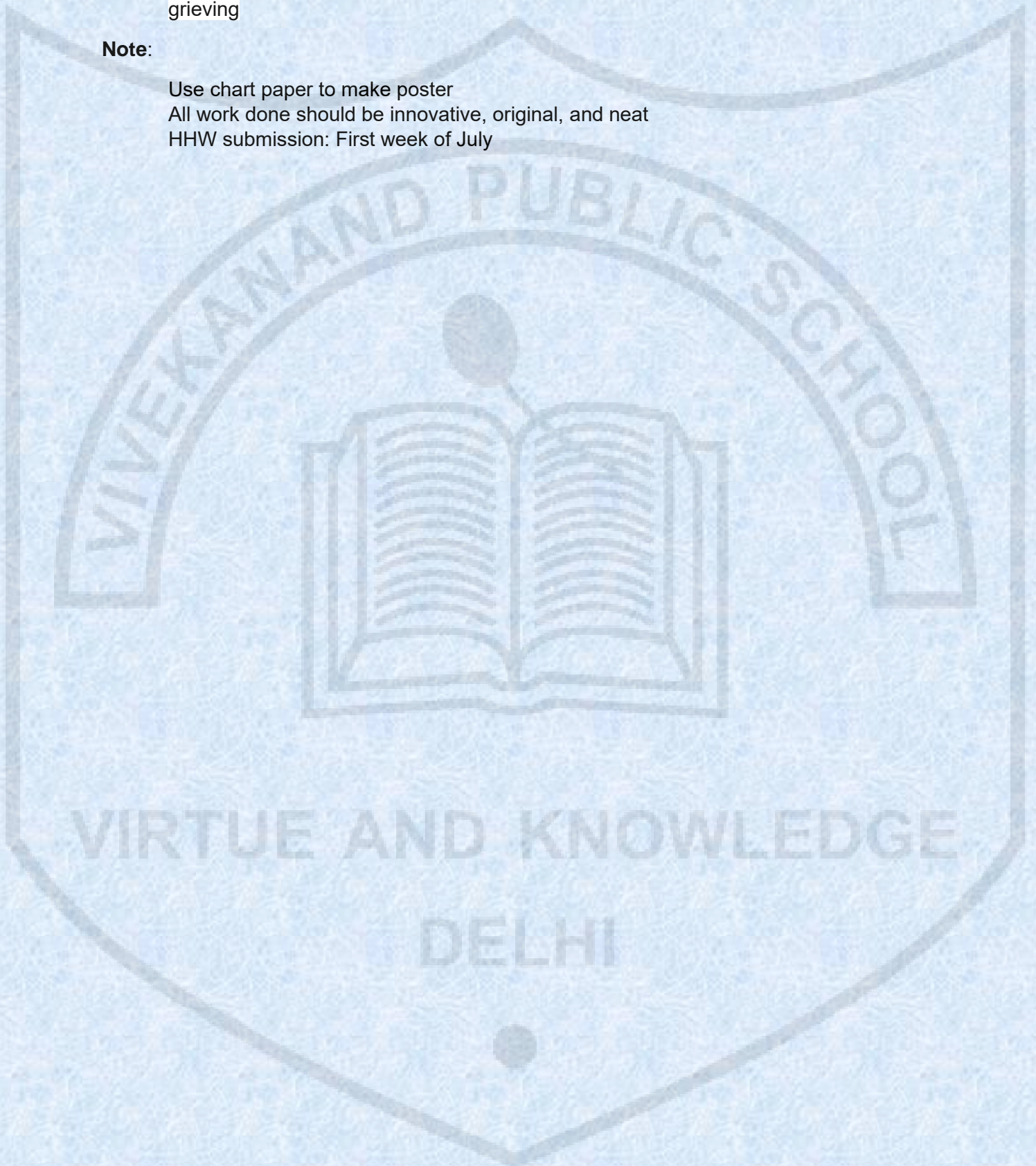
4. What does the poet say about her mother's face? Does the poet appear to be grieving

Note:

Use chart paper to make poster

All work done should be innovative, original, and neat

HHW submission: First week of July



ASSIGNMENT – 2

1. Edit the following passage

Tears are produced tear glands which keep the eye e.g. produced by tear
moist and are normally drained the (a)

nose. Onions a number of water-soluble volatile (b)

substances containing sulphur, cutting the onion (c)

these spread the air and cause irritation in the eyes. (d)

The tear glands start secreting more and more tears wash (e)

out the irritants.

The tears are produced fast that they cannot be drained out (f)

through nose and so run (g)

down the eyes thus making cry. (h)

2. Rearrange the following Jumbled Sentences into meaningful sentences:

- 1) Exploiting / man / been / the / years/has/ earth /the/for.
- 2) Was/Taplow/Frank/ Crocker /encouraging/about/ to speak.
- 3) Started / poet / missing / her/ after/ photograph/ her/mother/seeing.
- 4) Sachin Tendulkar / appointed/ as/ brand / has/ Rio/Ambassador/ been/of/ Olympics.
- 5) Students / the/ article/ write/ letter / must/suggestions/ a few/ end / the/ in/of/ to/ editor/and/the.
- 6) Young / like/ using/ them / politicians/ those/ voters/who / technology/woo.
- 7) Mystery / Simon/ the /Sir/of/ a /death/was.
- 8) Gap / father / generation/ son/ though/ and/ blood /have/ separates/ they/ relation.
- 9) Changed / educated / his / Ratna / Ranga/ seeing / mind/after.
- 10) System / facts /Albert /on / victim / focus / was/ education/ a/ of /wrong / where / was/ only/ memorizing /the.

3. Do As Directed

1. When I reached the bookstore, all the copies had already been sold.

- a) Past perfect continuous tense b) Past indefinite tense
- c) Present indefinite tense d) Present perfect tense

2. **Choose the correct tense:**

My friend _____ gracefully.

- a. have dancing b) dances
- c. is dancing d) danced

3. **Choose the correct tense:**

The Council _____ made its decision.

- a. Has b) having
- b. c) have had d) have

4. **Choose the correct tense:**

a. Every boy and girl _____ in the class today.

- b. had present b) is present
- c. c) have present d) are present

5. **Which tense is used to express general truths and facts?**

- a. Present continuous tense b) Present perfect tense
- b. c) Past perfect tense d) Present indefinite tense

6. **Choose the correct tense:**

Back in my native place, I _____ a smartphone

- a) did not had b) did not have
- c) do not has d) do not have

4. You are a member of the social awareness team of your school and you have to participate in an awareness drive regarding the importance of water. Prepare a poster highlighting the importance and ways of rainwater harvesting that can be implemented by the residents of the area.

5. Your school is celebrating Science week. Prepare a poster to create awareness regarding the importance of science in our daily lives.

6. Prepare a poster in not more than 50 words on kindness to animals to be displayed in the city at public places appealing to people to show kindness to animals. You are Secretary of the Society for Prevention of Cruelty to Animals, Mumbai.



History

VIRVUE AND KNOWLEDGE

DELHI

Make a PPT

Chapter 1 WRITING AND CITY LIFE

Topic 1. - Mesopotamia

- Sources
- geography
- Urbanisation
- Movement of goods.
- Development of writing.
- Literacy.

Topic 2.

- Temples and kings
- Earliest city Ur
- Life in cities
- Mari
- Problem with agriculture.
- A-Trading town in a Pastoralists zone

Topic 3.

- legacy of writing
- Seals
- An early library
- An early archaeologist

Chapter 2. Across three continents.

Topic 4.

- Sources of Roman Empire.
- Geography of the Roman Empire.

Topic 5- Age of king Augustus

- His administration
- Army
- Succession to the throne

Topic 6-

- Gender, literacy, and culture
- Social division

Topic 7.

- Economic expansion
- Controlling workers

Topic 8.

- Timeline of Romans
- Latte antiquité

Instructions for the PPT.

- Each PPT should be of 5 to 6 slides.
- Use paintings maps pictures to beautify the ppt.
- Prepare presentation to be given in class.
- PPT to be made in groups and to be discussed in class.

- Do assignments in the history register.

- Date of submission - 10/7/23

Assignment-1

1. What are the different Names used for the Mesopotamian civilization?
2. What are the features of Mesopotamian civilization?
3. What are the sources available to understand Mesopotamian civilization?
4. Explain Mesopotamian-geography.
5. What is the significance of Urbanism in Mesopotamia?
6. Explain the Development of Writing in Mesopotamia
7. Explain Literacy in Mesopotamia
8. How did people construct and maintain temples in Mesopotamia?
9. Explain life of common people in the City of Ur?
10. Explain the Legacy of Writing (Science and Technology) in Mesopotamia.

Assignments -2

Chapter 2 -An Empire across three continents, MULTIPLE CHOICE QUESTIONS

Q.1. In Which of these continents Roman Empire had not spread?

- (a) America (b) Africa
(c) Asia. (d) Europe

Q.2.'princeps means _____

- (a) Most respectable (b) Most famous
(c) The first Citizen (d) The first group

Q.3. Was slavery practiced during Roman Empire?

- (a) Yes (b) No
c) Cannot say (d) No argument

Q.4 Roman laws were inscribed on _____ (a) 12 tablets

- (b) 18 tablets
(c) 19 tablets
(d) 24 tablets

Q5. Roman laws were inscribed on-----?

- (a) 12 tablets (b) 18 tablets (c) 19 tablets (d) 24 tablets

VERY SHORT ANSWER TYPE QUESTION

Q.1 When did Roman Empire became a republic? Till how it remained republic?

Q.2 Who was Augustus?

Q.3 What do you mean by concept Late Antiquity?

- Q4 What were Amphorae? Where were they made?
Q5. Write any two Economic reforms done by Augustus?

SHORT ANSWER TYPE QUESTION

- Q1. What are various sources available for reconstructing the history of roman empire?
Q2. Why did Roman Government stop minting silver coin? After this which metal came to be used for minting coin?
Q3. Write some administrative reforms introduced by Emperor Diocletian?
Q4. Describe the main factors which were responsible for the decline of the Roman Civilization?
Q5. Write a short note on the army In the Roman Empire.



Mathematics

VIRTUE AND KNOWLEDGE

DELHI

PART - A:

Do the five-lab manual activity in the activity file. (pdf share in the class)

PART- B

Do this assignment in the Math's assignment register.

1. The set of difficult problems from ncert maths book
(a) A null set (b) A singleton set (c) A finite set (d) Not a well-defined Set
2. If a set A has n elements, then the total number of subsets of A is
(a) n (b) $2n$ (c) n^2 (d) 2^n
3. The set of intelligent students in a class is-
(a) a null set (b) a singleton set (c) a finite set (d) not a well-defined Set
4. Which of the following is the empty set
(a) $\{x: x \text{ is a real number and } x^2 = 1\}$
(b) $\{x: x \text{ is a real number and } x^2 + 1 = 0\}$
(c) $\{x: x \text{ is a real number and } x^2 - 9 = 0\}$
(d) $\{x: x \text{ is a real number and } x^2 = x + 2\}$
5. The set $A = \{x: x \in \mathbb{R}, x^2 = 16 \text{ and } 2x = 6\}$ is
(a) Null set (b) Singleton set (c) Infinite set (d) None of these
6. The number of subsets of the power set of set $A = \{\phi, \{\phi\}, \{\{\phi\}\}\}$ is (a) 1 (b) 8 (c) 64 (d) 256
7. Sets A and B have 3 and 6 elements respectively. What can be the minimum number of elements in $A \cup B$?
(a) 3 (b) 6 (c) 9 (d) 18
8. The smallest set A such that $A \cup \{1, 2\} = \{1, 2, 3, 5, 9\}$ is
(a) $\{2, 3, 5\}$ (b) $\{3, 5, 9\}$ (c) $\{1, 2, 5, 9\}$ (d) None of these
9. Let $A = \{x: x \in \mathbb{R}, |x| < 1\}$, $B = \{x: x \in \mathbb{R}, |x - 1| \geq 1\}$ and $A \cup B = \mathbb{R} - D$, then the set D is
(a) $\{x: 1 < x \leq 2\}$ (b) $\{x: 1 \leq x < 2\}$ (c) $\{x: 1 < x \leq 2\}$ (d) None of these

10. Let $U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$, $A = \{1, 2, 5\}$, $B = \{6, 7\}$, then $A \cap B$ is

- (a) B' (b) A (c) A' (d) B

11. If $X = \{4^n - 3n - 1 : n \in \mathbb{N}\}$ and $Y = \{9(n - 1) : n \in \mathbb{N}\}$, then find $X \cup Y$.

12. Write the set of all integers whose cube is an even integer.

13. If $A =$ Set of letters of the word 'DELHI' and $B =$ the set of letters the words 'DOLL' Find $A \cap B$ and $(A - B)$.

14. (a) Two sets A and B are such that $n(A \cup B) = 21$, $n(A) = 10$, $n(B) = 15$, then find $n(A \cap B)$ and $n(A - B)$.

(a) Find $A \cup B$ if $A = \{x : x = 2n + 1, n \leq 5, n \in \mathbb{N}\}$ and $B = \{x : x = 3n - 2, n \leq 4, n \in \mathbb{N}\}$.

15. (a) Let $A = \{1, 2, 4, 5\}$, $B = \{2, 3, 5, 6\}$, $C = \{4, 5, 6, 7\}$, Verify the following identity $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$.

(b) Given $A = \{1, 2, 3, 4\}$, $B = \{3, 4, 5, 6\}$ and $C = \{1, 3, 5\}$, verify that

$$A - (B \cup C) = (A - B) \cup (A - C) \text{ and } A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$$

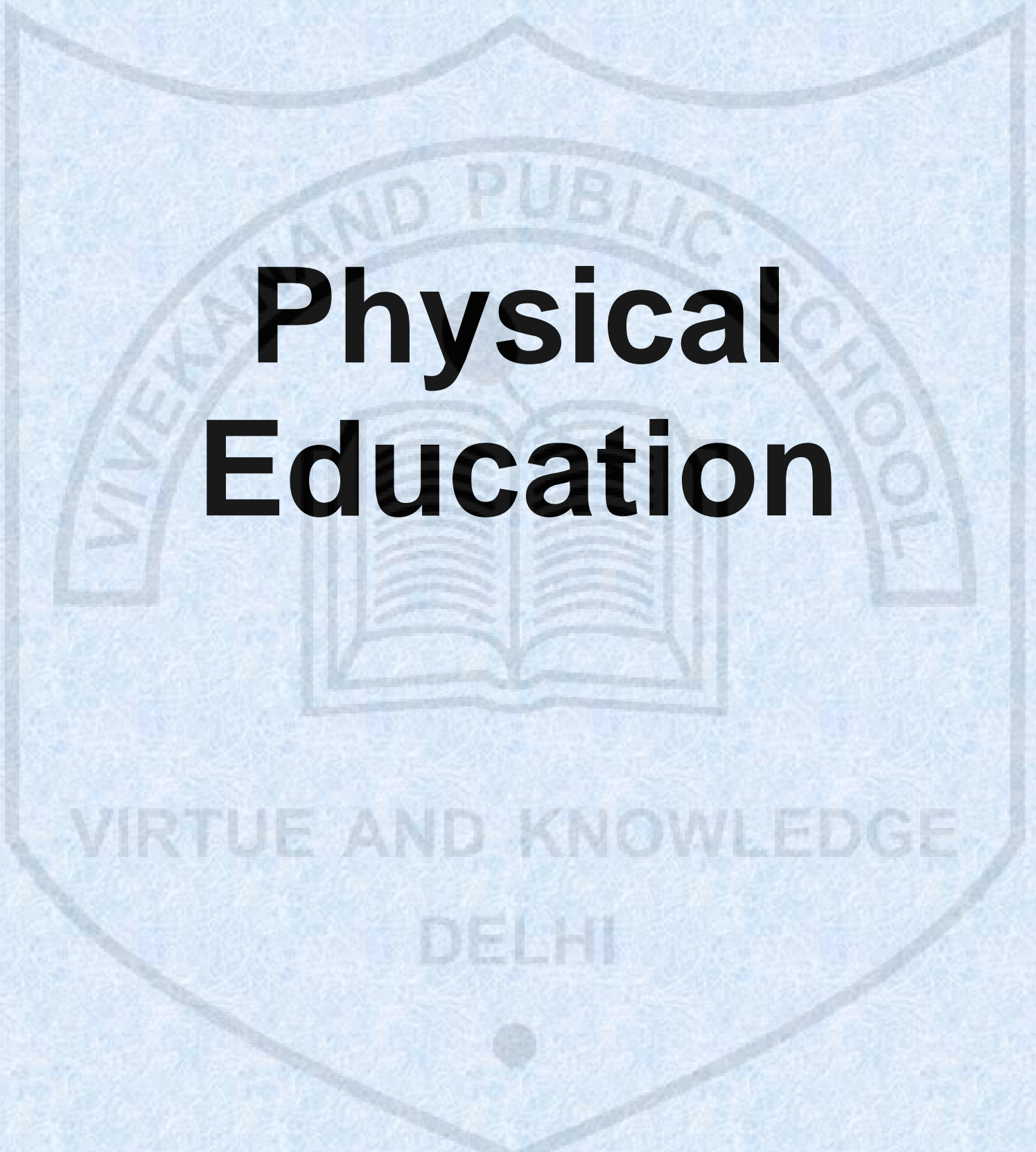
16. Find the centroid of the triangle with vertices $A(0, 6, 0)$, $B(0, 4, 0)$, $C(-1, 1, 1)$

17. Prove that the points $P(1, 2, 3)$, $Q(-1, -1, -1)$ and $R(3, 5, 7)$ are collinear.

18. Find lengths of the medians of the triangle with vertices $A(0, 0, 6)$, $B(0, 4, 0)$ and $(6, 0, 0)$.

19. Name the octants in which the following points lie: $(2, 3, 4)$, $(1, -2, 6)$.

20. Find the equation of set of points P 's such that $PA^2 + PB^2 = 2k^2$, where A and B are the points $(1, 2, 3)$ and $(1, 0, 0)$, respectively

The logo of Vivekananda Public School is a shield-shaped emblem. At the top, it features a decorative arch. Below this, the school's name "VIVEKANANDA PUBLIC SCHOOL" is written in a semi-circle. In the center of the shield is an open book. Below the book, the motto "VIRTUE AND KNOWLEDGE" is written in a straight line, and "DELHI" is written below that. A small black dot is positioned at the very bottom center of the shield.

Physical Education

Objective Type/Multiple Choice Questions

Give one-word answers.

1. In which year, the first Asian Games were organised in India?
2. After how many years, the Asian Games are organised?
3. Jesse Owens Trophy is related to which sports?
4. In which year, the first National Basketball Championships was held
5. Thomas cup is related to which game?
6. Name the historical cricket test series which is played between England and Australia?
7. Aga Khan Cup is related to which game?
8. FIFA Cup is related to which game?
9. In which year, the IPL related to cricket was started?
10. Wimbledon Cup is related to which game?
11. In which year 'Khelo India' programme was launched?

Fill in the blanks.

1. The aim of physical education is harmonious..... of an individual.
2. Coaching career is acareer is the field of physical education.
3. Nowadays, people have become more.....conscious.
- 4..... opportunities are widely available in book writing in the field of physical education and sports.
5. The World Cup of Hockey for men and women was started in..... and 1974, respectively.
- 6.....programme has been introduced to revive the sports culture in India.

State True or False.

1. aim of physical education is harmonious development of an individual
2. Khelo India programme was launched during 2017-2018.
3. Physical fitness of school-going children is not measured under the scheme of Khelo Ind (True/False)
4. Khelo India programme is not helpful for promoting rural games. (True/False)

Choose the correct answer.

1. Competitions are helpful for the development of
(a) Social qualities (c) Sports skills
(b) Selection of players (d) All the above

2. Uber Cup is related to:

- (a) Table Tennis (c) Badminton
- (b) Lawn Tennis
- (d) None of these

3. Which one of the following components is not included in Khelo India Programme?

- (a) Playfield development
- (b) Talent search and development
- (c) Sports for women
- (d) To organise Cricket Competitions

4. Which one of the following objectives is not the objective of physical education ment by H Clarke?

- (a) Physical fitness (c) Social efficiency
- (b) Worthy use of leisure time (d) Culture

Short Answer Questions-I

1. Enlist the objectives of physical education and explain any one of them.
2. Discuss about teaching careers in physical education in brief.
3. Enumerate the objectives of physical education in brief.
4. Briefly discuss about any three International Competitions of athletics.
5. Discuss the three national competitions of cricket in brief.
6. Write down any nine tournaments of football.
7. Write down a brief note on 'Khelo India' Programme.

Short Answer Questions

1. Define physical education and explain its aim and objectives in detail.
2. What are the various career options in physical education? Discuss the teaching career in detail.
3. Elucidate the coaching career in detail.
4. Discuss the health-related and administration-related careers in detail.
5. Explain in detail the sports media related careers in the field of physical education.
6. Write short notes on any two of the following:
 - (a) Career in book writing.
 - (b) Career in sports photography.
 - (c) Career in sports industry.

7. Elaborate the 'Khelo India' Programme in detail.

Project Work

Class XI

1. Physical Fitness Test: SAI Khelo India Test, Brockport Physical Fitness Test (BPFT)*

2. Proficiency in Games and Sports

(Skill of any one IOA recognized Sport/Game of Choice) **

3. Yogic Practices

4. Record File ***

***Record File shall include:

Practical-1: Fitness tests administration. (SAI Khelo India Test)

Practical-2: Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.

Practical-3: Any one IOA recognized Sport/Game of choice. Labelled diagram of Field &



Physics

VIRVUE AND KNOWLEDGE

DELHI

Q1) Name all the basic dimensions.

Q2) How will you express the dimensional formula for pressure?

Q3) Name the physical quantity that has the same dimensional formula as frequency.

Q4) Name two dimensionless quantities.

Q5) Distinguish between dimensional and non-dimensional constants with example.

Q6) If Electric Field is expressed as $E = \frac{F}{q}$, where 'F' is electric force and 'q' is electric charge, then what is the dimensional formula for E?

Q7) If electric force $F = k \frac{q_1 q_2}{r^2}$, where q_1, q_2 are charges and r is distance between them then find the Dimensional Formula for 'k'.

Q8) What is principle of homogeneity in equations?

Q9) State the uses of Dimensional Analysis.

Q10) Find the dimensional formula for Bulk Modulus 'B' using the expression $v = \sqrt{\frac{B}{\rho}}$; v is velocity and ρ is density.

Q11) The refractive index $\mu = A + \left(\frac{B}{\lambda^2}\right)$ where A and B are constants.

Find their dimensional formula and SI units.

Q12) Find the dimension of a/b in the relation $F = a\sqrt{x} + bt^2$, where 'F' is force,

'x' is distance and 't' is time.

Q13) Prove with the help of Dimensional Analysis that the equation $h = \frac{1}{2}gt^2$ for distance travelled by a freely falling body under gravity in time

't' is incorrect. Find the correct equation with the help of dimensions.

Q14) Check the authenticity of the equation $t = k \sqrt{\frac{h}{g}}$ using Dimensional Analysis. Here t = time period; h = height of liquid column; g = acceleration due to gravity; k is a dimensionless constant.

Q15) Given $\rho = \frac{3g}{4\pi R_e G}$; where ρ is density, R_e is the radius of the earth and G gravitational constant. Check the correctness of this equation.

Q16) Use Dimensional Analysis to check the correctness of the equation

$S = ut + gt^2$. Is the relation actually correct? What limitation of Dimensional Analysis does it reveal?

Q17) A particle of mass ' m ' is tied to a string and swung around in a circular path of radius ' r ' with a constant speed ' v '. Derive a formula for the centripetal force ' F ' exerted by the particle on our hand, using the method of dimensions.

Q18) The frequency ' n ' of a tuning fork depends upon length ' l ' of the prong, the density ' ρ ' and Young's modulus ' Y ' of its material. From dimensional considerations, find a possible formula for the frequency of the tuning fork.

Q 19) It is observed that a liquid rises in a capillary to a certain height due to Surface Tension. This height ' h ' to which a liquid rises in a capillary depends upon the radius of the capillary ' r ', Surface Tension of liquid ' S ', density of liquid ' ρ ' and acceleration due to gravity ' g ' of that place. Can you establish a relation between these quantities ' h ', ' S ', ' r ', ' ρ ', ' g ' using Dimensional Analysis? If not why? What limitation do you see here?

Q20) State the limitations of Dimensional Analysis.

END

Assignment - 2

Case Study Based Questions

Following questions are case study-based questions. Each question has five sub parts of multiple-choice questions. Attempt any four sub parts from each question. Each sub part of question carries 1 mark.

Q.1. In the absence of air resistance, all bodies falls with same same acceleration near the surface of the earth. This motion of a body falling towards the earth from a small height is called free fall. The acceleration with which a body falls is called acceleration due to gravity and it is denoted by g .

(i) For a freely falling body, which of the following equation is incorrect.

(a) $h-ut = (1/2) gt^2$ (b) $v^2 - u^2 = 2gh$

(c) $h = (1/2) ut + gt^2$ (d) $(v-u)/g = t$

(ii) The maximum height attained by a body thrown vertically upward with initial velocity u is

(a) $h=u^2/2g$ (b) $h=u/2g$

(c) $h=u^2/g$ (d) $h= 2u^2/g$

(iii) The time of ascent of a body thrown vertically upward with initial velocity u is

(a) $t= u/2g$ (b) $t= u/g$

(c) $t= u^2/g$ (d) $t= u/g^2$

(iv) The total time of flight to come back to the point of projection of a body thrown vertically upward with initial velocity u is

(a) $t= 2u/3g$ (b) $t= u/2g$

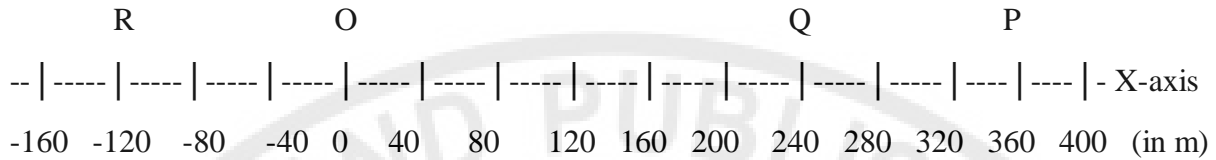
(c) $t= 2u/g$ (d) $t= u^2/2g$

(v) Velocity of fall at the point of projection of a body thrown vertically upward with initial velocity u is

(a) $v = u$ (b) $v = 2u$

(c) $v = 3u$ (d) $v = 4u$

Q.2. If the position of an object is continuously changing w.r.t. its surrounding, then it is said to be in the state of motion. Thus, motion can be defined as a change in position of an object with time. It is common to everything in the universe. In the given figure, let P,Q and R represent the position of a car at different instant of time



(i) With reference to the given figure, the position coordinates of point P and R are

- (a) $P=(+360, 0, 0)$; $R= (-120, 0, 0)$ (b) $P=(+360, 0, 0)$; $R= (+120, 0, 0)$
(c) $P=(0, +360, 0)$; $R= (-120, 0, 0)$ (d) $P=(0, 0, +360)$; $R= (0, 0, -120)$

(ii) Displacement of an object can be

- (a) Positive (b) Negative
(c) Zero (d) All of these

(iii) The displacement of car in moving from O to P and its displacement in moving from P to Q are

- (a) +360 m and -120 m (b) -120 m and +360 m
(c) +360 m and +120 m (d) +360 m and -600 m.

(iv) If the car goes from O to P and returns back to O, the displacement of the journey is

- (a) 0 m (b) 720 m
(c) 420 m (d) 340 m

(v) the path length of journey from O to P and back to O is

- (a) 0 m (b) 720 m
(c) 360 m (d) 480 m

Q.3. The acceleration of an object is said to be uniform acceleration if its velocity changes by equal amount in equal interval of time, however small these time intervals may be. A particle is moving with uniform acceleration in x-direction, the displacement x of particle varies with time t as $x = 4t^2 - 15t + 25$ m

(i) The position of particle at $t = 0$,

- (a) 14 m. (b) 18 m
(c) 20 m (d) 25 m

(ii) Velocity of particle at $t = 2$ s

(a) -15 m/s

(b) 1 m/s

(c) 3 m/s

(d) 31 m/s

(iii) Acceleration of particle at $t = 2$ s

(a) 0 ms^{-2}

(b) 8 ms^{-2}

(c) 10 ms^{-2}

(d) 20 ms^{-2}

(iv) The velocity of particle will become zero at time t equal to

(a) 2.975 s.

(b) 1.875 s.

(c) 2 s.

(d) 1 s.

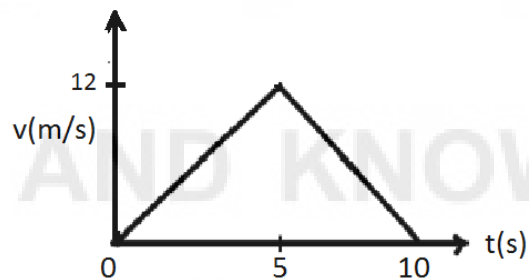
(v) The particle has a uniform acceleration 'a' when

(a) acceleration does not depend on time t (b) acceleration depends on time t

(c) velocity changes by unequal amount in equal interval of time,

(d) None of these

Q.4. The time rate of change of position of the object in any direction is called speed of the object. If an object covers equal distances in equal intervals of time, then its speed is called uniform speed and if it covers unequal distances in equal intervals of time, then its speed is called non-uniform or variable speed. The ratio of the total distance travelled by the object to the total time taken is called average speed of the object. The speed may be positive or zero but never negative. The speed-time graph of a particle moving along a fixed direction is shown in following Fig.



(i) Distance travelled by the particle between 0 to 10 seconds

(a) 60 m

(b) 50 m

(c) 120 m

(d) zero

(ii) Average speed between time interval 0 to 10 s

(a) 12 m/s

(b) 6 m/s

(c) 10 m/s

(d) 60 m/s

(iii) The time when the speed was minimum

(a) at $t = 0$ s and $t = 5$ s

(b) at $t = 5$ s and $t = 20$ s

(c) at $t = 5$ s and $t = 10$ s

(d) at $t = 0$ s and $t = 10$ s

(iv) The time when speed was maximum

(a) $t = 0$ s

(b) $t = 5$ s (c) $t = 10$ s

(d) $t = 12$ s

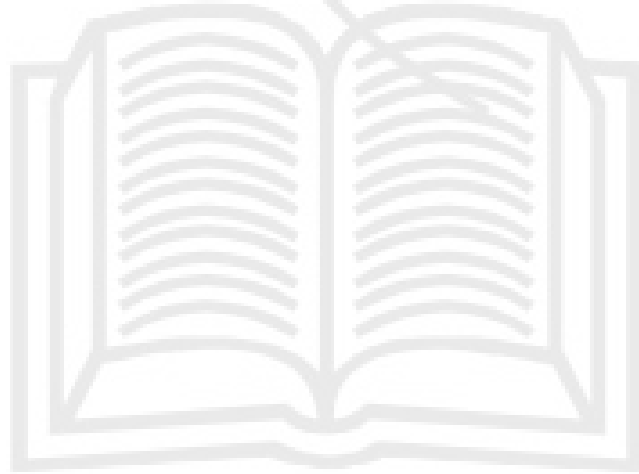
(v) Speed is positive at time interval

(a) $t = 0$ to $t = 5$ s

(b) $t = 5$ to $t = 10$ s

(c) $t = 0$ to $t = 10$ s

(d) All of these



VIRTUE AND KNOWLEDGE
DELHI

[CLICK HERE FOR CONTENTS](#)



Political Science

VIRTUE AND KNOWLEDGE

DELHI

A) Complete Holiday homework Assignment separately on A-4 size sheet (Assignment attached below)

B) Political Science Project- Prepare a project according to CBSE guidelines.

Topics as discussed in the classroom.

Some suggested topics are:

1. Indian Constitution
2. Equality
3. Liberty
4. Judiciary
5. Executive
6. Elections
7. Local government
8. Legislature
9. Social Justice

INSTRUCTIONS ARE AS FOLLOWS:

1. Project must be handwritten. Print outs will not be accepted.
2. Project to be done individually.
3. Page Limit- 25-30 pages.
4. Pictures must be incorporated.
5. Assessment will be based on creativity, presentation and research work conducted by the student.

C) Prepare a poster on 'Social Justice'.

Assignment - 1

1.State whether the following inferences about the making of the Indian Constitution are Correct or Incorrect. Give reasons to support your answer.

- (a) The Constituent Assembly did not represent the Indian people since it was not elected by all citizens.
- (b) Constitution making did not involve any major decision since there was a general consensus among the leaders at that time about its basic framework.
- (c) There was little originality in the Constitution, for much of it was borrowed from other countries.

2.Give two examples each to support the following conclusions about the Indian Constitution:

- (a) The Constitution was made by credible leaders who commanded people's respect.
- (b) The Constitution has distributed power in such a way as to make it difficult to subvert it.
- (c) The Constitution is the locus of people's hopes and aspirations.

3.Why is it necessary for a country to have a clear demarcation of powers and responsibilities in the constitution? What would happen in the absence of such a demarcation?

4.Why is it necessary for a constitution to place limitations on the rulers? Can there be a constitution that gives no power at all to the citizens?

5.The Japanese Constitution was made when the US occupation army was still in control of Japan after its defeat in the Second World War. The Japanese constitution could not have had any provision that the US government did not like. Do you see any problem in this way of making the constitution? In which way was the Indian experience different from this?

6.Raj at asked his teacher this question: "The constitution is a fifty year old and therefore outdated book. No one took my consent for implementing it. It is written in such tough language that I cannot understand it. Tell me why should I obey this document?" If you were the teacher, how would you answer Rajat?

7. What is the Constitution? How can we say that the Constitution is a living document?

8. Read the given passage and answer the questions that follow:

The independence of India should mean the independence of the whole of India... Independence must begin at the bottom. Thus, every village will be a republic... It follows therefore that every village has to be self-sustained and capable of managing its affairs. In this structure composed of innumerable villages, there will be ever-widening, ever-ascending circles. Life will be a pyramid with the apex sustained by the bottom – Mahatma Gandhi.

1. Which concept is Gandhiji explaining in the above passage?
2. What are Gandhiji's views regarding the decentralization of powers?
3. "Do you take decentralization as a means to minimize the conflicts?" Give your viewpoint.

9. The concept of "Directive Principles of State Policy" is borrowed from which country's constitution? Explain DPSP.

10. The term "secularism" was added to the Preamble of the Indian Constitution by which Amendment Act? Does secularism is prevalent in India.

11. Write a detail note on Judicial review with contemporary examples.

12. Who is often regarded as the "Father of the Indian Constitution"? Explain his role in the making of Indian constitution.

VIRTUE AND KNOWLEDGE
DELHI

Assignment - 2

1. What is Bill of Rights? Why is it important?
2. Explain the main provisions of Right to Equality.
3. Which articles of the Indian constitution provide the following provisions?
 - a) Reservation for backward classes
 - b) Right to life and personal liberty
4. Explain the concept of Preventive Detention.
5. Indian constitution safeguards us against which three exploitations?
6. Explain the Right to Freedom of Religion.
7. Explain Cultural and Educational Right.
8. Why is the Right to Constitutional Remedies considered the heart and soul of the Indian Constitution?
9. What is the meaning of the term Directive Principle of State Policy?
10. What is the difference between Fundamental Rights and Directive Principles of State Policy?
11. Write and two fundamental duties of Indian Citizens.
12. Explain the controversy pertaining to Fundamental Rights and Directive Principles of State Policy.