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HOLIDAY HOMEWORK
SESSION- (2026-27)
CLASS-XII
(ENGLISH MEDIUM)

General Instructions For Holiday Homework:-

- Use separate Notebook for homework.
- Writing should be neat & clean.
- Mention date & day on your holiday homework.
- Try to do your work by yourself.
- The H.W. must be submitted on the 1st day of reporting of the school.
- The H.W. is assigned as 10 marks in the Half Yearly Exams.
- Marks will be awarded to students based on creativity, originality, presentation and timely submission.

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1. HINDI

नोट - यह गृह कार्य सभी छात्र-छात्राओं को गद्य, काव्य व व्याकरण की पुस्तिका में पूर्ण करना है।

लेखन में सुंदरता का विशेष ध्यान रखें।

यह कार्य सभी के लिए अनिवार्य है।

1. प्रतिदिन अखबार की नई खबर पढ़िए।
2. हिंदी कविता में प्रकृति चित्रण
   (जयशंकर प्रसाद, सुमित्रानंदन पंत, महादेवी वर्मा) कवियों की कविताओं का तुलनात्मक अध्ययन भाषा शैली तथा विशेषताएं लिखिए एवं याद करिए।
3. भारतीय ग्रामीण का जीवन
   (प्रस्तावना, आजादी के पहले की स्थिति, बाद की बदली स्थिति तथा वर्तमान स्थिति सुधार की आवश्यकता स्वयं का योगदान लिखिए।)
4. ऑनलाइन शिक्षण में चुनौतियां और संभावनाएं

(ऑनलाइन शिक्षा क्या है, इसके लाभ इसके नकारात्मक प्रभाव, शिक्षण में चुनौतियां, डिजिटल शिक्षा को बढ़ावा देने हेतु सरकार के प्रयास, स्वयं की भूमिका अपने शब्दों में लिखिए।)

5. गद्य और पद्य का इतिहास याद कीजिए तथा 200 बहुविकल्पीय प्रश्न उत्तर याद कीजिए।
6. व्याकरण-
   1. पाठ्य पुस्तक में से 20 मुहावरे तथा लोकोक्तियां कॉपी में लिखिए।
   2. शब्द युग्म एवं वाक्यांशों के लिए एक शब्द कॉपी में लिखिए।
7. काव्य सौंदर्य के तत्व-
   1. श्रृंगार रस, करुण रस, वीर रस, शांत रस, वीभत्स रस, हास्य रस की परिभाषा उदाहरण सहित लिखिए।
   2. अलंकार- अनुप्रास, यमक, श्लेष की परिभाषा उदाहरण सहित लिखिए व याद कीजिए।
8. निम्नलिखित विषयों में से किसी एक पर अपनी भाषा शैली में निबंध लिखिए-

1. वर्तमान समाज में नारी की स्थिति
2. प्रदूषण की समस्या करण और निवारण
3. लोकनायक तुलसीदास
4. आरक्षण व्यवस्था वरदान या अभिशाप

9. कक्षा में कराया गया समस्त कार्य याद कीजिए।

2. ENGLISH

1. Read an **English newspaper** daily, noting down headlines of **(National news, International news, Sports news & Educational news)** & find new words with their meanings. **(100 words mandatory)**

2**.** Article writing-

Write the articles in about 100-150 words on these topics-

1. Digital India
2. Population problem
3. Value of discipline
4. Effect of mobile phones on students
5. Importance of trees

3. Unseen Passage Practice-

Solve daily one unseen passage from your grammar book.

4. Vocabulary Practice-

1. Write & learn antonyms and synonyms from 'A TO K' letter from your grammar book.

2. Write and learn starting 30 homophones from your grammar book.

5. Grammar Practice-

Revise & practice the first unit (Direct and Indirect narration)

5. Literature Work-

Prepare summary of the following chapters-

Flamingo- 1. The last lesson

2. Lost Spring

Vistas- 1. The third level

2. The tiger king

3. MATHS

1. Do Ex. 1.1, 1.2, 2.1, 2.2, 3.1, 3.2 & 3.3 in a separate holiday homework.
2. Previous year question based on-
   i) Ch-1
   ii) Ch-2
   iii) Ch-3

4. PCM\PCB

1. **PHYSICS-**
   a) Complete all NCERT solved examples & exercise questions from Ch-1.
   b) Write all important formulas, key points & definitions in your notebook.
   c) Read Ch-2 carefully and write its short summary. If possible read Ch-3 and write its short summary as well.
   d) Prepare a project file on any topic related to the chapters\topics already taught in class. Try to apply your classroom learning & creativity while making the project.
   Project file should include:
   (Cover page, index, introduction, main content, diagrams, charts & conclusion)

2. **CHEMISTRY-**

1. Learn these name reactions given in the pdf below and write their equation from the book. (Write three times after learning)

2. Complete the following holiday homework neatly in your notebook/file. Show all calculations, formulas, and units properly.

A. Name Reactions Activity

• Learn all important Name Reactions from NCERT.
• Write each reaction equation three times in your notebook.
• Mention reactants, products, and conditions wherever required.

B. Chemistry Project File

Prepare a project file on any one topic of Chemistry.

The project file should contain:

- Definition
- General Formula
- Nomenclature
- Isomerism
- Methods of Preparation
- Physical Properties
- Chemical Properties
- Uses
- Tests (if possible)

Decorate the file neatly and start every heading from a new page.

C. Practice Assignment

Concentration Terms (Q.1 – Q.20)

1. Calculate the molarity of a solution containing 10 g NaOH in 500 mL solution.

2. Calculate the molality of a solution containing 9.8 g H_2SO_4 in 200 g water.

3. Find the mole fraction of ethanol in a solution containing 46 g ethanol and 54 g water.

4. Calculate mass percentage of glucose in a solution containing 20 g glucose in 180 g water.

5. Calculate ppm of fluoride ions if 2 mg fluoride is present in 5 kg water.

6. A solution contains 5 g NaCl in 250 g water. Calculate molality.

7. Calculate the mole fraction of acetone in a mixture containing 58 g acetone and 36 g water.

8. Calculate molarity of 0.5 mole HCl dissolved in 250 mL solution.

9. Find mass percentage of urea in a solution containing 25 g urea and 75 g water.

10. Calculate molality of a solution containing 18 g glucose dissolved in 100 g water.

11. Calculate mole fraction of benzene in a solution containing 78 g benzene and 46 g toluene.

12. A solution contains 2 g KCl in 100 g water. Calculate mass percentage.

13. Calculate molarity of a solution prepared by dissolving 4 g NaOH in 200 mL solution.

14. Calculate mole fraction of water in a solution containing 2 moles ethanol and 8 moles water.

15. Find molality of a solution containing 5 moles solute in 2 kg solvent.

16. Calculate ppm of lead if 0.5 mg lead is dissolved in 2 kg water.

17. Calculate molarity of 11.7 g NaCl dissolved in 500 mL solution.

18. Find mole fraction of solute when 1 mole solute is dissolved in 9 moles solvent.

19. Calculate mass percentage of alcohol in a solution containing 40 g alcohol and 160 g water.

20. Calculate molality of KNO_3 solution containing 20.2 g KNO_3 in 500 g water.

Henry's Law (Q.21 – Q.35)

21. The Henry's law constant for CO_2 in water is 1.67×10^8 Pa. Calculate mole fraction of CO_2 if pressure is 5×10^6 Pa.

22. Calculate pressure required to dissolve mole fraction 0.02 of gas if Henry's constant is 2×10^5 Pa.

23. The mole fraction of oxygen dissolved in water is 3×10^{-5} at 1 atm. Calculate Henry's constant.

24. Calculate solubility of gas if pressure is doubled.

25. At 298 K, pressure of gas above solution is 4 atm and mole fraction is 2×10^{-4}. Calculate Henry's constant.

26. Calculate mole fraction of gas dissolved at pressure 8 atm if Henry's constant is 1600 atm.

27. A gas has Henry's constant 5×10^{4} Pa. Find pressure needed for mole fraction 0.01.

28. Calculate pressure when mole fraction of gas is 5×10^{-6} and Henry's constant is 1.2×10^{5} Pa.

29. The mole fraction of dissolved gas is 1×10^{-5} at 2 atm. Find Henry's constant.

30. Calculate mole fraction of NH_3 dissolved in water if pressure is 3 atm and Henry's constant is 30 atm.

31. A gas obeys Henry's law with constant 500 atm. Calculate pressure for mole fraction 0.004.

32. Calculate Henry's constant if pressure is 10 atm and mole fraction is 0.05.

33. If pressure is increased from 2 atm to 6 atm, how does solubility change according to Henry's law?

34. Calculate pressure required to dissolve gas with mole fraction 0.002 if Henry's constant is 900 atm.

35. Find mole fraction of dissolved gas at pressure 15 atm and Henry's constant 3000 atm.

Raoult's Law & Vapour Pressure (Q.36 – Q.60)

36. Vapour pressure of pure benzene is 100 mm Hg. Calculate vapour pressure when mole fraction of benzene is 0.8.

37. A solution contains two volatile liquids A and B. Mole fractions are 0.4 and 0.6 respectively. Vapour pressures are 200 mm Hg and 80 mm Hg. Calculate total vapour pressure.

38. Calculate partial pressure of component A if $p°A = 120$ torr and $xA = 0.7$.

39. Vapour pressure of pure toluene is 50 mm Hg. Calculate vapour pressure when 2 moles toluene are mixed with 3 moles benzene.

40. A solution contains 1 mole hexane and 2 moles heptane. Vapour pressures are 150 torr and 50 torr respectively. Calculate total vapour pressure.

41. Calculate mole fraction of benzene if partial pressure is 60 torr and vapour pressure of pure benzene is 120 torr.

42. Vapour pressure of pure liquid A is 80 torr and that of B is 100 torr. Mole fractions are 0.3 and 0.7 respectively. Calculate total vapour pressure.

43. Calculate vapour pressure of ethanol in solution if x = 0.5 and pure vapour pressure is 44 torr.

44. A mixture contains equal moles of two volatile liquids with vapour pressures 90 torr and 60 torr. Find total vapour pressure.

45. Calculate partial pressure of component B when xB = 0.25 and p°B = 200 torr.

46. Vapour pressure of chloroform is 300 torr. Calculate pressure in solution if mole fraction is 0.6.

47. Two volatile liquids A and B have vapour pressures 120 torr and 80 torr respectively. Mole fractions are 0.5 each. Calculate total vapour pressure.

48. Calculate mole fraction if vapour pressure of solution is 70 torr and pure liquid vapour pressure is 100 torr.

49. Vapour pressure of pure acetone is 240 torr. Find vapour pressure in solution when mole fraction is 0.75.

50. Calculate total vapour pressure of solution containing 0.2 mole fraction A and 0.8 mole fraction B. Vapour pressures are 100 torr and 50 torr respectively.

51. Calculate relative lowering of vapour pressure when 1 mole urea is dissolved in 9 moles water.

52. Vapour pressure of pure solvent is 100 torr and solution is 95 torr. Calculate mole fraction of solute.

53. A solution contains 0.5 mole glucose in 9.5 moles water. Calculate relative lowering of vapour pressure.

54. Vapour pressure of pure benzene is 80 torr and that of solution is 76 torr. Find mole fraction of solute.

55. Calculate vapour pressure lowering when vapour pressure of pure solvent is 120 torr and solution is 114 torr.

56. One mole non-volatile solute is dissolved in 19 moles solvent. Calculate relative lowering of vapour pressure.

57. Vapour pressure of pure solvent is 200 torr and solution is 190 torr. Find mole fraction of solute.

58. Calculate relative lowering in vapour pressure if 2 moles solute are dissolved in 18 moles solvent.

59. Vapour pressure of pure water is 23.8 torr and solution vapour pressure is 22.6 torr. Calculate lowering in vapour pressure.

60. Calculate mole fraction of solute if relative lowering in vapour pressure is 0.1.

Colligative Properties (Q.61 – Q.80)

61. Calculate elevation in boiling point when 1 mole glucose is dissolved in 1 kg water. Kb = 0.52 K kg mol^{-1}.

62. Calculate depression in freezing point when 0.5 mole urea is dissolved in 1 kg water. Kf = 1.86 K kg mol^{-1}.

63. Calculate osmotic pressure of 0.2 M glucose solution at 300 K.

64. A solution has boiling point elevation 1.04 K. Calculate molality if Kb = 0.52 K kg mol^{-1}.

65. Calculate freezing point depression of 2 molal solution. Kf = 1.86 K kg mol^{-1}.

66. Calculate osmotic pressure of 1 M solution at 273 K.

67. Calculate molar mass of solute if 2 g solute dissolved in 100 g benzene produces boiling point elevation 0.5 K. Kb = 2.53 K kg mol^{-1}.

68. A solution freezes at -0.372°C. Calculate molality. Kf for water = 1.86 K kg mol^{-1}.

69. Calculate osmotic pressure at 27°C for 0.1 M NaCl solution.

70. Calculate boiling point elevation for 0.25 molal solution. Kb = 0.52 K kg mol^{-1}.

71. A solution shows freezing point depression 3.72 K. Calculate molality if Kf = 1.86 K kg mol^{-1}.

72. Calculate osmotic pressure of 0.5 M urea solution at 300 K.

73. Calculate molar mass of non-volatile solute if 1 g solute in 100 g water lowers freezing point by 0.186 K. Kf = 1.86 K kg mol^{-1}.

74. Calculate boiling point elevation when 3 moles solute are dissolved in 2 kg solvent. Kb = 0.52 K kg mol^{-1}.

75. Calculate freezing point depression of 1.5 molal solution. Kf = 1.86 K kg mol^{-1}.

76. Calculate osmotic pressure of 0.25 M solution at 298 K.

77. A solution shows boiling point elevation of 0.26 K. Calculate molality if Kb = 0.52 K kg mol^{-1}.

78. Calculate molar mass of solute if 5 g solute dissolved in 200 g solvent gives depression in freezing point 0.93 K. Kf = 1.86 K kg mol^{-1}.

79. Calculate osmotic pressure of 0.01 M glucose solution at 300 K.

80. Calculate freezing point depression when 0.2 mole solute is dissolved in 500 g solvent. Kf = 1.86 K kg mol^{-1}.

Submission Instructions

- Complete all work neatly in your notebook.
- Show all formulas and calculations clearly.
- Highlight important formulas.
- Submit the holiday homework after vacation.

3. BIOLOGY-

a) Cell Structure chart
   Prepare a large colourful chart showing
   1. Plant cell
   2. Animal cell
   3. Cell organelles and functions

b) Human digestive system model, label all organs clearly and write functions on a chart paper.

c) Nutrition Survey Projects (Only family members)
   Conduct a small survey of 10-15 people

Record daily diet, junk food intake, water consumption & exercise habits.

5. HUMANITIES

HISTORY-

Project Work

Complete a comprehensive project on any two of the following suggestive topics-

1. The Indus Valley Civilization Archaeological Excavations and New Perspectives.

2. Mahatama Gandhi A Legendary Soul and His Global Legacy.

3. The Architectural Culture of the Vijayanagar Empire (Hampi).

4. Life of Women in the Mughal Rural Society.

5. Comparative Analysis of the Land Revenue Systems introduced by the British in India.

6. The process behind the framing of the Indian Constitution.

POLITICAL SCIENCE-

Prepare a project file on any 2 topics given below-

Contemporary World Politics

1. India's Role in G20 & Global South - 2023 presidency analysis

2. UN Reforms and India's Bid for Permanent UNSC Seat

3. Russia-Ukraine Conflict: Impact on India - Oil, defence, diplomacy

4. Climate Change and International Politics - Paris Agreement, COP28

5. Rise of Regional Parties in India - Federal politics case study

GEOGRAPHY-

Complete a comprehensive project on any two of the following suggestive topics-

Physical & Human Geography

1. Urban Flooding in Indian Cities

2. Water Crisis in India - Groundwater depletion, river disputes

3. Impact of Climate Change on Indian Agriculture - Crop pattern shifts

4. Sustainable Tourism in the Himalayas - Carrying capacity, disasters

5. Smart Cities Mission: Success & Challenges - Pick 1-2 cities

6. DRAWING

1. Practical Art & Sketching

(Art File / Canvas) Compositions: Create 2 detailed watercolour or acrylic compositions on half-cartridge paper (e.g., a multi-coloured village scene or a nature/seascape).

Still Life: Prepare 2 drawings focusing on shading and texture using everyday items like fruits, flowers, or household objects.

Figure Sketching: Sketch 10–20 anatomical figures (males, females, and children) in a dedicated long notebook.

📚 2. Theory & Practical Project Work

History of Indian Art: Research and write comprehensive notes on the Rajasthani and Pahari Schools of Miniature Painting or the Deccan School.

Art Portfolio File: Organize and finalize your required practical file featuring 6 mandatory categories (including landscapes and human life).4. Composition (Scenery / Life Scene) Task: Create 5 or 10 colourful scenes from daily life on A4 or A3 sheets.

7. COMMERCE

ECONOMICS-

1. Prepare a detailed analytical report on Union Budget of 2026.
2. Briefly explain the following-
    - Solar Charkha Mission
    - Samarth Scheme
    - Ayushman Bharat
    - Atmanirbhar Bharat Abhiyan

B. St.

1. Design a business-toon or write an article on any corporate or any creative idea for business for commerce section in school.

2. Prepare a project file on the topic of : (as per your Roll No. given in front of the topic)

- Principles of management (Roll No- 1 to 5)
- Marketing management (Roll No- 6 to 10)
- Stock Exchange (Roll No- 11 to 15)
- Business environment (Roll No- 16 to 19)

ACCOUNTS

1. Use financial statements live data or 2024-25 data of any company & prepare Journal, Ledger, Trial Balance & Balance Sheet. Also write down detailed conclusion on behalf of company's performance & non-performance & suggest ways to improve financial health of a company.
2. Do Ex. Of Ch-3 & 4 in your account's notebook.

ACTIVITY

Make a chart on the given topics

1. Renewable Energy Transition in India - Solar parks, wind energy map.
2. Delhi NCR Air Pollution - Causes, data, mitigation strategies
3. Migration Trends Post-COVID - Reverse migration, urban impact