

PM SHRI KENDRIYA VIDYALAYA NO. -1 BEG & C ROORKEE

HOLIDAY HOMEWORK FOR AUTUMN BREAK

SESSION –2026-27

SUBJECT-BUSINESS STUDIES

CLASS-XI

Date	Name of chapter/unit
15/10/2026	CHAPTER-1 EVOLUTION AND FUNDAMENTAL OF BUSINESS MULTIPLE CHOICE QUESTIONS –5 QUESTIONS ASSERITON AND REASON –2 QUESTIONS COMPETENCY BASED QUESTIONS –3 QUESTIONS
16/10/2026	CHAPTER-1 EVOLUTION AND FUNDAMENTAL OF BUSINESS CASE STUDIES – 3, 5, 7 QUESTIONS SHORT ANSWER TYPE QUESTIONS 1) Compare business with profession and employment. 2) Why does business need multiple objectives? Explain any five such objectives?
17/10/2026	CHAPTER- 2 FORMS OF BUINESS ORGANISATIONS MULTIPLE CHOICE QUESTIONS –6QUESTIONS ASSERITON AND REASON –2QUESTIONS COMPETENCY BASED QUESTIONS –3 QUESTIONS
18/10/2026	CHAPTER- 2 FORMS OF BUINESS ORGANISATIONS CASE STUDIES – 14,16 & 17 QUESTIONS SHORT ANSWER TYPE QUESTIONS 1) What do you understand by a sole proprietorship firm? Explain its merits & demerits 2) Distinguish between 'Memoran association'.
19/10/2026	CHAPTER-3 PUBLIC, PRIVATE & GLOBAL ENTERPRISES MULTIPLE CHOICE QUESTIONS –5 QUESTIONS ASSERITON AND REASON –2 QUESTIONS COMPETENCY BASED QUESTIONS –3 QUESTIONS
20/10/2026	CHAPTER-3 PUBLIC, PRIVATE & GLOBAL ENTERPRISES CASE STUDIES – 1 & 2 QUESTIONS SHORT ANSWER TYPE QUESTIONS 1) Can the public sector companies compete with the private sector in terms of profits and efficiency? Give reasons.

	2) Why are global enterprises considered superior to other business organization?
21/10/2026	CHAPTER- 4 BUSINESS SERVICES MULTIPLE CHOICE QUESTIONS –5 QUESTIONS ASSERTION AND REASON –2 QUESTIONS COMPETENCY BASED QUESTIONS –3 QUESTIONS
22/10/2026	CHAPTER- 4 BUSINESS SERVICES CASE STUDIES – 5 & 6 QUESTIONS SHORT ANSWER TYPE QUESTIONS 1) What is e- banking? What are the advantages of e-banking? 2) Explain briefly the principles of insurance with suitable example.
23/10/2026	CHAPTER- 5 EMERGING MODES OF BUSINESS MULTIPLE CHOICE QUESTIONS –5 QUESTIONS ASSERTION AND REASON –2 QUESTIONS COMPETENCY BASED QUESTIONS –3 QUESTIONS CASE STUDIES –1 & 2 QUESTIONS SHORT ANSWER TYPE QUESTIONS 1) Differentiate between e-business and traditional business. 2) Explain meaning & scope of e-business.
24/10/2026	CHAPTER –6 SOCIAL RESPONSIBILITIES OF BUSINESS & BUSINESS ETHICS MULTIPLE CHOICE QUESTIONS –5 QUESTIONS ASSERTION AND REASON –2 QUESTIONS COMPETENCY BASED QUESTIONS –3 QUESTIONS CASE STUDIES –4 & 5 QUESTIONS SHORT ANSWER TYPE QUESTIONS 1) Brief explain (a) Air pollution (b) water pollution (c) land pollution. 2) What do you understand by social responsibility of business? How is it different from legal responsibility?

PM SHRI KENDRIYA VIDYALAYA NO.1 ROORKEE

CLASS- XI CS

HOLIDAY HOMEWORK

General Instructions:

- This question paper contains 37 questions.
- All questions are compulsory. However, internal choices have been provided in some questions. Attempt only one of the choices in such questions.
- The paper is divided into five sections –A, B, C, D and E.
- Section A consists of 21 questions (1 to 21). Each question carries 1 mark.
- Section B consists of 7 questions (22 to 28). Each question carries 2 marks.
- Section C consists of 3 questions (29 to 31). Each question carries 3 marks.
- Section D consists of 4 questions (32 to 35). Each question carries 4 marks.
- Section E consists of 2 questions (36 and 37). Each question carries 5 marks.
- All programming questions are to be answered using Python language only.
- In case of MCQs, write the letter of the correct answer as well as the text.

Design of the Question Paper (Blueprint)

Unit	Topic	Marks
Unit 1	Computer Systems and Organisation	20
Unit 2	Computational Thinking and Programming –I	50
	Total	70

Section	Marks per Question	No. of Questions	Total Marks
A	1	21	21
B	2	7	14
C	3	3	9
D	4	4	16
E	5	2	10
		Total (37 Qs)	70

SECTION A (1 × 21 = 21 Marks)

1. Which component of the computer performs all arithmetic and logical operations?
(A) Control Unit (B) ALU (C) Cache (D) Register
2. Which of the following is a valid Python identifier?
(A) 3value (B) total-sum (C) _temp (D) class
3. 1 MB is equal to:
(A) 1024 bytes (B) 1024 KB (C) 1024 GB (D) 1000 bytes
4. Which of the following data types is immutable in Python?
(A) List (B) Dictionary (C) Tuple (D) Set
5. Which of the following is system software?
(A) MS Excel (B) Device driver (C) Tally (D) VLC Media Player
6. What will be the output of: `print(10 // 3)`
(A) 3.33 (B) 3 (C) 3.0 (D) 1
7. Which language translator converts source code line-by-line and stops at the first error?
(A) Compiler (B) Assembler (C) Interpreter (D) Linker
8. Which operator checks whether a value exists in a list?
(A) exists (B) has (C) in (D) within
9. The output of a NOR gate is 1 only when:
(A) both inputs are 1 (B) both inputs are 0 (C) any input is 1 (D) inputs are different
10. Which operator checks if two variables refer to the same object in memory?
(A) == (B) = (C) in (D) is
11. The hexadecimal equivalent of $(11101)_2$ is:
(A) 1D (B) 2E (C) 1C (D) 2D
12. Which of the following functions returns the length of a string?
(A) size() (B) length() (C) len() (D) count()
13. Which encoding scheme was specifically developed in India to represent Indian language scripts?
(A) ASCII (B) Unicode (C) ISCII (D) UTF-32
14. Identify the type of error in the following statement: `print("Result" + 5)`
(A) Syntax error (B) Logical error (C) Runtime/Type error (D) No error
15. Which of the following is the fastest form of memory?
(A) Cache memory (B) Primary memory (C) Secondary memory (D) Pen drive
16. Which list method arranges the elements of a list in ascending order, in place?
(A) sorted() (B) sort() (C) order() (D) arrange()
17. Simplify using De Morgan's Law: $(A.B)'$ =
(A) $A' + B'$ (B) $A' . B'$ (C) $A + B$ (D) $A . B$
18. Which keyword is used to iterate over a sequence in Python?
(A) loop (B) for (C) repeat (D) each
19. Which of the following is an input device?
(A) Plotter (B) Scanner (C) Monitor (D) Speaker
20. **Assertion (A):** Cache memory is used to speed up the overall processing of the CPU.
Reason (R): Cache memory is larger in size but slower in speed than primary memory.
(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.

21. **Assertion (A):** In Python, a list can store elements of different data types.

Reason (R): A list is a mutable sequence, so it can be modified after creation.

(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.

SECTION B (2 × 7 = 14 Marks)

22. Differentiate between primary memory and secondary memory (any two points).

23. Draw the truth table for the XOR gate and the NOR gate.

24. Convert the decimal number $(255)_{10}$ into its binary.

25. The following Python code has errors. Rewrite the correct code, underlining each correction.

```
num = 10
if num > 0
    print('Positive')
Else:
    print("Non-positive")
```

26. Differentiate between a syntax error and a logical error, with one example of each.

27. What is the difference between the `append()` and `extend()` methods of a list? Illustrate with a suitable example.

28. State the data type of the result of each of the following expressions:

(i) $5 + 2.0$ (ii) $7 == 7.0$ (iii) `"5" + "2"` (iv) $10 / 2$

SECTION C (3 × 3 = 9 Marks)

29. Convert the following numbers from one base to another (attempt any three):

(i) $(101101)_2 = ()_{10}$

(ii) $(87)_{10} = ()_8$

(iii) $(2F)_{16} = ()_2$

(iv) $(144)_8 = ()_{16}$

30. Draw a flowchart to find the largest of three numbers entered by the user.

(OR)

Write an algorithm to check whether a number entered by the user is divisible by both 3 and 5.

31. Predict the output of the following Python code:

```
s = "COMPUTER"
res = ""
for i in range(0, len(s), 2):
    res = res + s[i]
print(res)
print(s[::-1])
```

SECTION D (4 × 4 = 16 Marks)

32. Write a Python program to generate the following pattern using nested loops:

1
1 2
1 2 3
1 2 3 4

33. Write a Python program to accept a string from the user and count the number of uppercase letters, lowercase letters and digits present in it. (OR) Write a Python program to find the factorial of a positive number entered by the user, using a loop.
34. Write a Python program to calculate the sum of the following series using a loop: $1 + 1/2 + 1/3 + 1/4 + \dots + 1/10$ (OR) Write a Python program to check whether a number entered by the user is divisible by both 4 and 6.
35. Write a Python program to accept a list of numbers from the user and display the frequency of each distinct element present in the list, without using the `count()` method.

SECTION E (5 × 2 = 10 Marks)

36. Consider the following list: `L = [15, 42, 8, 23, 42, 16, 9]` Write Python statements to perform the following operations:
- (a) Count the number of times the value 42 appears in the list.
 - (b) Arrange the elements of the list in descending order.
 - (c) Remove the last element of the list.
 - (d) Insert the value 50 at index position 2.
 - (e) Find the sum and average of all the elements in the list.
37. A teacher has stored the scores of six students in a list: `Scores = [45, 67, 23, 89, 56, 90]` Write Python code to:
- (a) Find and display the maximum, minimum and mean of the scores. (2)
 - (b) Perform a linear search for a score entered by the user, and display whether it is Found or Not Found, along with its index if found. (2)
 - (c) Count and display how many scores are above the mean. (1)

HOLIDAY HOMEWORK

AUTUMN BREAK –SESSION 2026–27

KENDRIYA VIDYALAYA

NO. 1, ROORKEE CLASS: XI

–C SUBJECT: HISTORY

SECTION A: SHORT ANSWER TYPE QUESTIONS

1\ What do you know about the sacred temples

of Mesopotamia? 2\ Describe the important

features of Mesopotamia.

3\ Write a note on the condition of women in the family and society in

the Roman Empire. 4\ Explain the concept of the three orders in medieval European society.

5\ Why did the Renaissance start in Italy? Write its causes.

—SECTION B: LONG ANSWER TYPE QUESTIONS 1\ Why was Mesopotamia called an urban civilization?

2\ Who were the main players of the Roman Empire? Describe them. SECTION C: MAP-BASED ACTIVITY

On an outline map of the world, locate and label the following:

- Black Sea
- Red Sea
- Persian Gulf
- Constantinople
- Antioch
- Mediterranean Sea

- Complete all questions neatly in your History notebook.

- Use an outline map of the world for the map-based activity.

- Label all locations clearly and accurately.

- Submit your completed holiday homework as per year

WISH YOU A HAPPY AUTUMN BREAK!

PM SHRI KENDRIYA VIDYALAYA NO. 1, ROORKEE
AUTUMN BREAK HOLIDAY HOMEWORK

Class: XI **Subject:** English Core (301) **Duration:** 10 Days

Section A: Reading Skills

Q1. Unseen Passage (Reading Comprehension)

Read any one editorial or informative article from an English newspaper or a reliable magazine. The article should be related to education, technology, the environment, or student life.

Write the following:

- Title and source of the article.
- Main idea in 40–50 words.
- Five important points learned from it.
- Two new words with their meanings and sentences.

Q2. Advertisement Writing

Draft a classified advertisement in about 50 words for the sale of a second-hand bicycle in good condition. Include the important details and contact information.

Q3. Grammar Practice

Prepare and solve:

- Five questions on gap-filling using tenses.
- Five questions on reordering of words or phrases to form meaningful sentences.
- Five questions on editing or omission.

Use examples appropriate to the Class XI English Core syllabus.

Section C: Literature

Q4. Hornbill –Prose

Answer any two questions in 80–100 words each.

21. How does *The Portrait of a Lady* present the changing relationship between the narrator and his grandmother?
22. What does *We're Not Afraid to Die* teach...us *if* about courage, *We* teamwork, *All* and *Be* determination?
23. How does *Discovering Tut: The Saga Continues* connect scientific investigation with historical curiosity?

Q5. Hornbill –Poetry

Answer any one question in 80–100 words.

- a. How does the poem *A Photograph* explore the passage of time and the pain of loss?
- b. What message does the poem *The Laburnum Top* convey through its description of nature?

Q6. Snapshots –Supplementary Reader

Answer any two questions in 80–100 words each.

- a. How does *The Summer of the Beautiful White Horse* explore honesty and family reputation?
- b. What does *The Address* reveal about the emotional impact of war and the loss of one's home and possessions?
- c. How does *Mother's Day* highlight the need to recognise and respect the contribution of mothers?

Note: Attempt only those questions that correspond to the chapters completed

in your class. Replace any question from an untaught chapter with a question from a chapter already covered.

Section D: Creative and Enrichment Activity

Q7. Literary Expression

Choose any one of the following activities:

- a. **Character Profile:** Prepare a character profile of the grandmother from *The Portrait of a Lady*, highlighting her appearance, values, habits, and relationship with the narrator.
- b. **Poetry Appreciation:** Prepare a one-page appreciation of *A Photograph*, including its central idea, poetic devices, tone, and message.
- c. **Book Review:** Read a short story or a book suitable for your age group and write a review in 150–200 words, mentioning its title, author, theme, favourite character, and what you learned.

Use one A4 sheet and include a relevant illustration only if it adds value.

Section E: Speaking and Listening

Q8. Listening and Reflection

Listen to a short English news bulletin, educational podcast, or a talk of 3–5 minutes.

Happy Holidays! Read, reflect, and return refreshed.

PM SHRI K.V. no.1 Roorkee AUTUMN HOLIDAY HOMEWORK (2026–27)

Class: XI

Subject: Political Science

Chapter: Federalism

Activities and Questions

1. Understanding Federalism

Draw a flowchart showing the meaning and main features of federalism. Give two examples of federal countries.

- **Map Activity: India's States**

On an outline map of India, mark and label any 10 states. Also, mark the Union Territories in a different colour.

3. Division of Powers

Draw a colourful diagram showing the three lists in the Indian Constitution: Union List, State List, and Concurrent List. Write two examples under each list.

4. Competency-Based Question

India has both a Union Government and State Governments. Why does the Constitution divide powers between them? Write any three reasons.

5. Federalism Around the World

Prepare a comparison chart of India and Nigeria. Mention two similarities and two differences in their federal systems.

6. Map and Research Activity

On an outline map of India, mark and label any five states that share a boundary with another country. Name the neighbouring country for each state.

7. Federal or Unitary?

Differentiate between federal and unitary systems of government using a simple comparison table. Give one example of each.

8. Competency-Based Question

Suppose the Union Government and a State Government disagree over a subject in the Concurrent List. Why is the Constitution important in resolving such a dispute? Explain briefly.

9. Creative Activity: Federalism Poster

Make a poster on the theme “**Unity Diversity: Federalism**” Includes slogan, in Ind drawing, and three points explaining the importance of federalism.

10. Case-Based Question

A state wants to make a law on a subject included in the State List, while the Union Government makes laws on subjects in the Union List.

24. Why are subjects divided into different lists?
25. Give two examples of subjects from the State List.
26. How does this division help in the smooth functioning of the country?



PM SHRI KV NO 1 ROORKEE

Learn
Analyse
Grow



AUTUMN BREAK ASSIGNMENT

CLASS 11 – PRESENTATION OF DATA (NUMERICALS)

Day Wise – 10 Days

1 Day 1

Bar Diagram (Simple Numerical)

The following table shows the number of students in a school from 2019 to 2023.

Year	2019	2020	2021	2022	2023
Number of Students	480	520	560	600	640

Draw a suitable bar diagram to represent the data.



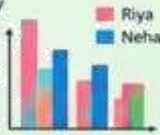
2 Day 2

Multiple Bar Diagram

The following table shows the marks obtained by Riya and Neha in 5 subjects.

Subject	Riya	Neha
English	78	72
Physics	85	80
Chemistry	92	88
Mathematics	88	95
Biology	76	82

Draw a multiple bar diagram to compare the marks of Riya and Neha.



3 Day 3

Pie Chart

The following table shows the expenditure of a family in a month.

Item	Expenditure (₹)
Food	8000
House Rent	6000
Transport	2000
Education	3000
Others	1000

Draw a pie chart to represent the above data.



4 Day 4

Histogram

The following table shows the distribution of marks obtained by 50 students in a test.

Marks Range	Number of Students
0 – 10	4
11 – 20	8
21 – 30	15
31 – 40	14
41 – 50	9

Draw a histogram to represent the data.



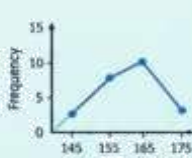
5 Day 5

Frequency Polygon

The following table shows the distribution of heights (in cm) of 30 students.

Height (cm)	Frequency
140 – 150	4
151 – 160	10
161 – 170	12
171 – 180	4

Draw a frequency polygon for the given data.



6 Day 6

Ogive

The following table shows the cumulative frequency distribution of marks obtained by 40 students.

Marks (Less Than)	≤10	≤20	≤30	≤40	≤50
Cumulative Frequency	2	8	20	32	40

Draw the less than ogive for the given data.



7 Day 7

Comparative Analysis (Bar Diagram)

The production of wheat (in tonnes) in two states during 2020 and 2021 is given below.

State	2020	2021
Punjab	1200	1500
Haryana	1000	1300

Draw a comparative bar diagram to represent the data.



8 Day 8

Data Interpretation

The following table shows the number of books read by 5 students in a month.

Student	A	B	C	D	E
Books	12	9	15	7	10

Find the mean and median number of books read by the students.



Project work (do any one)

- consumer awareness and consume
- Rural economy and agriculture

PM SHRI KENDRIYA VIDYALAYA NO.1 ROORKEE
AUTUMN BREAK HOLIDAY HOMEWORK
Mathematics | Class 11

Session 2026-27

Autumn Break: 15 October 2026 to 24 October 2026 (10 days)

Instructions for Students

- Attempt one worksheet each day. Do all the work neatly in your Maths notebook.
- Write the question number and then the complete solution, showing each step.
- Draw diagrams and graphs with a pencil and ruler wherever needed.
- Revise the chapter from the textbook before starting that day's worksheet.
- This is revision work only, based on what has already been taught in class.

Day 1: Sets

27. Write the set of vowels in the English alphabet in roster form.
28. If $A = \{1, 2, 3, 4\}$ and $B = \{3, 4, 5, 6\}$, find $A \cup B$ and $A \cap B$.
29. Write in set-builder form: $\{2, 4, 6, 8\}$.
30. If $n(A) = 20$, $n(B) = 15$ and $n(A \cap B) = 5$, find $n(A \cup B)$.
31. Write the power set of $\{a, b\}$.
32. If $A = \{x : x \text{ is a prime number less than } 10\}$, write A in roster form.
33. For $A = \{1, 2, 3\}$ and $B = \{3, 4\}$, find $A - B$ and $B - A$.
34. In a class of 40 students, 25 play football and 20 play cricket, and 10 play both. How many play neither?

Day 2: Relations and Functions

- c. If $A = \{1, 2\}$ and $B = \{3, 4\}$, find $A \times B$.
- d. Define a function and give one example.
- e. Find the domain of $f(x) = 1/(x - 2)$.
- f. If $f(x) = 2x + 3$, find $f(2)$ and $f(0)$.
- g. Find the range of $f(x) = x^2$.
- h. If $f(x) = x^2$ and $g(x) = x + 1$, find $(f + g)(x)$.
- i. Find the domain of $f(x) = \sqrt{x - 3}$.
- j. For $R = \{(1, 2), (2, 3), (3, 4)\}$, write the domain and the range.

Day 3: Trigonometric Functions

- d. Convert 60 degrees into radians.
- e. Convert $\pi/4$ radians into degrees.
- f. Find the value of $\sin 150^\circ$.
- g. Find the value of $\cos(-60^\circ)$.
- h. Prove that $\sin(-x) = -\sin x$.
- i. If $\sin x = 1/2$, find the general solution for x .
- j. Find the value of $\tan(3\pi/4)$.
- k. Find the maximum and the minimum value of $3 + 2 \sin x$.

Day 4: Complex Numbers

- d. Express $(3 + 2i) + (1 - 5i)$ in the form $a + bi$.
- e. Find the modulus of $3 + 4i$.
- f. Find the conjugate of $2 - 3i$.
- g. Multiply: $(2 + i)(3 - 2i)$.
- h. Find the value of i^{15} .

- i. Express $1/(1 + i)$ in the form $a + bi$.
- j. Find the multiplicative inverse of i .
- k. Solve: $x^2 + 4 = 0$.

Day 5: Linear Inequalities

- 1. Solve: $3x - 5 < 7$.
- 2. Solve $5x + 3 \leq 18$ and represent the solution on a number line.
- 3. Solve: $-3 < 2x + 1 \leq 5$.
- 4. Solve: $2(2x + 3) - 10 < 6(x - 2)$.
- 5. Solve: $x/2 + 1 \geq 3$.
- 6. Solve: $7 \leq (3x - 11)/2 \leq 11$.
- 7. Solve for x : $-5 \leq (5 - 3x)/2 \leq 8$.
- 8. Solve $3x + 8 > 2$, where x is a natural number.

Day 6: Permutations and Combinations

- 26. Evaluate $5!$.
- 27. Evaluate $7P3$.
- 28. Evaluate $8C3$.
- 29. In how many ways can 5 different books be arranged on a shelf?
- 30. How many 3-digit numbers can be formed from the digits 1, 2, 3 and 4 without repetition?
- 31. In how many ways can a committee of 3 be chosen from 7 people?
- 32. How many diagonals does a hexagon have?
- 33. In how many ways can 6 people be seated around a round table?

Day 7: Binomial Theorem

- 29. Expand $(x + 2)^3$.
- 30. Expand $(1 + x)^4$.
- 31. Write the general term in the expansion of $(a + b)^n$.
- 32. Find the coefficient of x^2 in the expansion of $(1 + x)^5$.
- 33. Find the middle term in the expansion of $(x + 1/x)^{10}$.
- 34. Expand $(2x - 3)^3$.
- 35. Find the coefficient of x^5 in the expansion of $(x + 3)^6$.
- 36. Find the number of terms in the expansion of $(a + b)^{10}$.

Day 8: Sequences and Series (Part 1)

- 1. Find the 8th term of the GP 2, 6, 18, ...
- 32. Find the sum to n terms of the GP $1 + 2 + 4 + \dots$
- 33. Find the 5th term of the GP 3, -6, 12, ...
- 34. Find the sum of the first 20 natural numbers
- 35. Find the sum of the infinite GP: $1 + 1/2 + 1/4 + \dots$
- 36. Find the sum: $1 + 3 + 5 + \dots + 49$.

Day 9: Sequences and Series (Part 2)

- 1. Find the 12th term of the GP 1, $1/2$, $1/4$, ...
- 2. Insert three geometric means between 2 and 32.
- 3. Find the sum: $1/2 + 1/4 + 1/8 + \dots$
- 4. If the 3rd term of a GP is 24 and the 6th term is 192, find the GP.

Day 10: Mixed Revision

1. If $A = \{1, 2, 3\}$ and $B = \{2, 3, 4\}$, find $A \cap B$ and $A \cup B$.

2. Find the domain of $f(x) = 1/(x^2 - 9)$.

3. Find the value of $\cos 120^\circ$.

4. Find the modulus of $1 + i$.

5. Solve: $4x + 3 < 11$.

6. Evaluate

7. Expand $(x - 1)^3$.

PM SHRI KENDRIYA VIDYALAYA NO. 1, ROORKEE

Autumn Break Homework Assignment (Session 2026–27)

CLASS & SUBJECT	SYLLABUS COVERED	MAX. MARKS	SUBMISSION DATE
XI Physics	Chapters 1 to 7 (as covered in class)	50 Marks	First Day After Break

General Instructions for Students:

- Complete the work over the 10 days of the autumn break; do not leave it all for the last day.
- Solve numerical problems with formula, substitution, SI units and final answer.
- Draw neat, labelled diagrams/graphs wherever required. Use a separate Physics homework notebook.
- This assignment contributes to subject enrichment and portfolio assessment.

SECTION A: Objective Type Questions (15 Marks)

Q1. Multiple Choice Questions (Choose the correct option): [1 × 5 = 5 Marks]

- The dimensional formula of impulse is: (a) $[MLT^{-1}]$ (b) $[MLT^{-3}]$ (c) $[ML^2T^{-2}]$ (d) $[M^2LT^{-2}]$
- The slope of a position–time graph represents: (a) acceleration (b) velocity (c) force (d) momentum
- A projectile has its maximum horizontal range when projected at: (a) 30° (b) 45° (c) 60° (d) 90°
- The SI unit of coefficient of friction is: (a) Newton (b) joule (c) no unit (d) pascal
- Work done by a centripetal force in uniform circular motion is: (a) positive (b) negative (c) zero (d) variable

Q2. Fill in the blanks: [1 × 5 = 5 Marks]

- (i) The number of significant figures in 0.00450 is _____.
- (ii) The area under a velocity–time graph gives _____.
- (iii) The horizontal and vertical motions of a projectile are _____ of each other.
- (iv) Newton's second law states that the rate of change of _____ is proportional to the net force acting on the body.
- (v) The dimensional formula of work is _____.

Q3. Match the following: [1 × 5 = 5 Marks]

Column A	Column B
1. Displacement	(A) kgm/s^2
2. Force	(B) Scalar product of force and displacement
3. Work	(C) Shortest directed distance from initial to final position
4. Acceleration	(D) Change in velocity per unit time
5. Momentum	(E) Product of mass and velocity

SECTION B: Short Answer & Numerical Questions (15 Marks)

Q4. [2 marks] State the principle of homogeneity of dimensions. Why is it useful?

Q5. [2 marks] Distinguish between distance and displacement with one example.

Q6. [2 marks] A car's velocity changes from 5 m/s to 20 m/s in 3 s. Calculate its uniform acceleration.

Q7. [3 marks] A ball is projected horizontally from a height. Explain why its horizontal velocity remains constant (neglect air resistance), while its vertical velocity changes.

Q8. [3 marks] A 4 kg object is acted upon by a net force of 12 N. Find its acceleration. If it starts from rest, find its velocity after 5 s.

Q9. [3 marks] Explain static friction, limiting friction and kinetic friction. Give one everyday example.

SECTION C: Long Answer & Conceptual Questions (12 Marks)

Q10. Answer in detail. [4 × 3 = 12 Marks]

35. Explain accuracy and precision. Write the dimensional formulae of force, work and power. (4 marks)
36. Derive expressions for the time of flight and maximum height of a projectile projected with speed u at angle to the horizontal. (4 marks)
37. State Newton's three laws of motion and explain any one with a suitable daily-life example. (4 marks)

SECTION D: Practical Activity & Investigative Project Work (8 Marks)

Activity 1: Motion Graph Investigation (4 marks)

Record the motion of a toy car or a moving object over a measured straight path. Note its position at equal time intervals and prepare a position–time table. Draw a position–time graph and describe whether the motion is uniform or non-uniform. Include aim, materials, observations and conclusion.

Activity 2: Friction Around Us (4 marks)

Choose three surfaces (for example, tile, cardboard and cloth). Slide the same small object across each surface using a spring balance if available, or compare the effort needed. Prepare a table of surface, observed friction and inference. Explain how the results relate to the nature of the surfaces. Do not use heavy or hazardous objects.

ADDITIONAL CHAPTER PRACTICE — CLASS XI PHYSICS

System of Particles and Rotational Motion

Q11. (3 marks) (a) Define centre of mass. (1)

- k. Write the relation between torque, moment of inertia and angular acceleration. (1)
- l. A constant torque of 6 N m acts on a body of moment of inertia 2 kg m^2 . Calculate its angular acceleration. (1)

Q12. (2 marks) State the principle of conservation of angular momentum. Give one example from daily life or sports.

Gravitation

Q13. (3 marks) (a) State Newton's universal law of gravitation. (1)

Write the relation between acceleration due to gravity g and universal gravitational constant G . (1)

A body has mass 5 kg. Calculate its weight on Earth, taking $g =$

$22. \text{ m/s}^2$. (1) **Q14. (2 marks)** Differentiate between mass and weight.

Write the S.I. unit of each. **UPDATED 10-DAY STUDY PLAN**

Day	Suggested Work	Done
1	Revise units, dimensions, significant figures and measurement errors.	■
2	Practise dimensional analysis and significant-figure questions.	■
3	Revise distance, displacement, velocity, acceleration and motion graphs.	■
4	Revise vectors and projectile motion; practise numerical problems.	■
5	Revise Newton's laws, momentum, impulse and friction.	■
6	Study centre of mass, torque, moment of inertia and angular momentum.	■
7	Practise rotational-motion numericals and conservation of angular momentum.	■
8	Revise universal gravitation, acceleration due to gravity, mass and weight.	■
9	Attempt all assignment questions without notes; check formulae and units.	■
10	Complete activities, correct mistakes and organise the notebook for submission.	■

Note: Complete these additional questions along with the main assignment. Show formulae, calculations and SI units in all numerical answers.

Departmental Submission & Approval

Certified that the assigned work is intended to reinforce the concepts covered in Class XI Physics and encourage independent practice, observation and scientific reasoning.

Subject Teacher

Head of Department / HOD
Principal Signature

HOLIDAY HOMEWORK

AUTUMN BREAK –SESSION 2026–27

KENDRIYA VIDYALAYA

NO. 1, ROORKEE CLASS: XI

–C SUBJECT: HISTORY

SECTION A: SHORT ANSWER TYPE QUESTIONS

1\ What do you know about the sacred temples

of Mesopotamia? 2\ Describe the important

features of Mesopotamia.

3\ Write a note on the condition of women in the family and society in

the Roman Empire. 4\ Explain the concept of the three orders in

medieval European society.

5\ Why did the Renaissance start in Italy? Write its causes.

SECTION B: LONG ANSWER

TYPE QUESTIONS 1\ Why was

Mesopotamia called an urban

civilization?

2\ Who were the main players of the Roman

Empire? Describe them. SECTION C: MAP-BASED

ACTIVITY

On an outline map of the world, locate and label the following:

- Black Sea
- Red Sea
- Persian Gulf
- Constantinople
- Antioch
- Mediterranean Sea
- Complete all questions neatly in your History notebook.
- Use an outline map of the world for the map-based activity.
- Label all locations clearly and accurately.
- Submit your completed holiday homework as per y

पीएम श्री केंद्रीय विद्यालय क्रमांक एक रुड़की

शरद कालीन अवकाश गृह कार्य

कक्षा - 11वीं

विषय - हिंदी

निर्देश :

1. सभी प्रश्नों के उत्तर हिंदी की कॉपी में साफ-सुथरी लिखावट में लिखें।
2. सभी प्रश्नों के उत्तर पाठ्यपुस्तक के आधार पर लिखें।
3. रचनात्मक लेखन में भाषा की स्पष्टता और अपने विचारों का ध्यान रखें।
4. अवकाश के बाद कार्य पूरा करके कॉपी जाँच हेतु प्रस्तुत करें।

प्रश्न :

1. निम्नलिखित विषयों में से किसी एक पर लगभग 150-200 शब्दों में लेख लिखिए:
 - विद्यार्थी जीवन में अनुशासन का महत्व
 - पर्यावरण संरक्षण में विद्यार्थियों की भूमिका
 - सोशल मीडिया : लाभ और हानि
 - समय का सदुपयोग
2. जनसंचार के माध्यमों से आप क्या समझते हैं? इसके प्रमुख माध्यमों और महत्व को स्पष्ट कीजिए।
3. विद्यालय में स्वच्छता अभियान आयोजित करने के संबंध में प्रधानाचार्य को आवेदन-पत्र लिखिए।
4. निम्नलिखित में से किसी एक प्रक्रिया का क्रमबद्ध वर्णन कीजिए:
 - विद्यालय में प्रार्थना सभा आयोजित करने की प्रक्रिया
 - पौधारोपण कार्यक्रम आयोजित करने की प्रक्रिया

5. 'मियाँ नसीरुद्दीन' पाठ के आधार पर स्पष्ट कीजिए कि मियाँ नसीरुद्दीन अपने काम को केवल रोज़गार नहीं, बल्कि कला क्यों मानते थे?
6. 'विदाई-संभाषण' पाठ के आधार पर तत्कालीन शासन-व्यवस्था और जनता की भावनाओं का वर्णन कीजिए।
7. 'गज़ल' पाठ के आधार पर कवि ने समाज की किन समस्याओं और विसंगतियों की ओर संकेत किया है?
8. विद्यालय में आयोजित सांस्कृतिक कार्यक्रम में पुरस्कार प्राप्त करने के बाद अपने अनुभवों को व्यक्त करते हुए लगभग 150-200 शब्दों में डायरी लिखिए।
9. प्रत्येक उत्तर में उचित शीर्षक और प्रश्न संख्या अवश्य लिखें।
10. अपना गृहकार्य समय पर पूरा करें और सभी उत्तर स्वयं लिखें।