

P M SHRI KENDRIYA VIDYALAYA NO 1 DHANBAD
ACADEMIC SESSION 2024- 2025

CLASS – 9 A ONLY

SUBJECT – ARTIFICIAL INTELLIGENCE

SOLVE THE FOLLOWING PYTHON PROGRAMS

1. [Python Program to Calculate the Area of a Triangle](#)
2. [Python Program to Make a Simple Calculator](#)
3. [Python Program to Convert Celsius To Fahrenheit](#)
4. [Python Program to Print Hello world!](#)
5. [Python Program to Convert Kilometers to Miles](#)
6. [Python Program to Find the Largest Among Three Numbers](#)
7. [Python Program to Display the multiplication Table](#)
8. [Python Program to Check if a Number is Odd or Even](#)
9. [Python Program to Check if a Number is Positive, Negative or 0](#)
10. [Python Program to Check Prime Number](#)
11. [Python Program to Print all Prime Numbers in an Int](#)

CLASS IX B & C
WINTER BREAK HOMEWORK
ARTIFICIAL INTELLIGENCE
PRACTICAL FILE PROGRAMS

1. Write a program to print personal information.

```
a = input (" Enter your name:")  
b = input (" Enter your father's name:")  
c = input (" Enter your class:")  
d = input (" Enter your school name:")  
  
print(a)  
print(b)  
print(c)  
print(d)
```

Output:

```
Enter your name: Alice  
Enter your father's name: John  
Enter your class: 10  
Enter your school name: Green Valley High School  
Alice  
John  
10  
Green Valley High School
```

2. Calculate simple interest for principal amount = 2000, rate of interest 4.5% and time 10 years.

```
pa = 2000
```

```
roi = 4.5
```

```
t = 10
```

```
si = (pa * roi * t)/100
```

```
print("Simple interest =", si)
```

Output:

Simple interest = 900.0

3. Calculate area and perimeter of rectangle.

```
l = int(input(" Enter length of rectangle"))
```

```
b = int(input(" Enter breadth of rectangle"))
```

```
a = l * b
```

```
p = 2 * ( l+b )
```

```
print("The area of rectangle =",a)
```

```
print(" The perimeter of rectangle =",b)
```

Output:

Enter length of rectangle: 5

Enter breadth of rectangle: 3

The area of rectangle = 15

The perimeter of rectangle = 16

4. Convert given length in km to meters.

```
a = int (input ( "Enter length in kilometers"))  
b = a * 1000  
print( "Length in meters = ",b)
```

Output:

Enter length in kilometers: 5

Length in meters = 5000

5. Calculate area and perimeter of a rectangle

```
# Input: Length and width of the rectangle  
length = float(input("Enter the length of the rectangle: "))  
width = float(input("Enter the width of the rectangle: "))  
# Calculate area and perimeter  
area = length * width  
perimeter = 2 * (length + width)  
# Output: Display the results  
print(f"The area of the rectangle is: {area}")  
print(f"The perimeter of the rectangle is: {perimeter}")
```

Output:

Enter the length of the rectangle: 7

Enter the width of the rectangle: 4

The area of the rectangle is: 28.0

The perimeter of the rectangle is: 22.0

6. Write a Program in Python to calculate the area of a triangle using its base and height

```
# Input: Base and height of the triangle
base = float(input("Enter the base of the triangle: "))
height = float(input("Enter the height of the triangle: "))
# Calculate area
area = 0.5 * base * height
# Output: Display the result
print(f"The area of the triangle is: {area}")
```

OUTPUT:

Enter the base of the triangle: 10

Enter the height of the triangle: 5

The area of the triangle is: 25.0

7. Calculate average marks of 3 subjects.

```
a = int(input("Enter first number"))
b = int(input("Enter second number"))
c = int(input("Enter third number"))
avg = (a+b+c)/3
print(" The average of three numbers =", avg)
```

OUTPUT:

Enter first number: 10

Enter second number: 20

Enter third number: 30

The average of three numbers = 20.0

8. Write a Python program to calculate the discounted amount given the original price and discount percentage

```
# Input: Original price and discount percentage
Original_price = float(input("Enter the original price: "))
discount_percentage = float(input("Enter the discount percentage: "))
# Calculate discount amount and final price
discount_amount = (discount_percentage / 100) * original_price
final_price = original_price - discount_amount
# Output: Display the results
print(discount_amount)
print(final_price)
```

OUTPUT:

Enter the original price: 1000

Enter the discount percentage: 20

Discount amount = 200.0

Final price = 800.0

9. write a python program to calculate surface area and volume of a cuboid

```
# Input: Length, width, and height of the cuboid
length = float(input("Enter the length of the cuboid: "))
width = float(input("Enter the width of the cuboid: "))
height = float(input("Enter the height of the cuboid: "))
# Calculate the surface area
surface_area = 2 * (length * width + width * height + height * length)
# Calculate the volume
volume = length * width * height
# Output: Display the results
print(surface_area)
```

```
print(volume)
```

OUTPUT:

Enter the length of the cuboid: 4

Enter the width of the cuboid: 3

Enter the height of the cuboid: 2

Surface area of the cuboid = 52.0

Volume of the cuboid = 24.0

10 Write a program in python to find the square of number 7

```
a = 7
```

```
b = a * a
```

```
print ("The square of number 7 is ", b)
```

OUTPUT:

The square of number 7 is 49

11. Write a Program in Python find the sum of two numbers 15 and 20

```
a = 15
```

```
b = 20
```

```
c = a + b
```

```
printf("The Sum of 15 and 20 is", c)
```

OUTPUT:

The Sum of 15 and 20 is 35

12. Write a Python Program to convert length given in Kilometers into Metres.

```
# Input: Length in kilometers
kilometers = float(input("Enter the length in kilometers: "))
# Conversion factor
meters = kilometers * 1000
# Output: Display the result
print(meters)
```

OUTPUT:

```
Enter the length in kilometers: 5
5000.0
```

13 write a python program to print the table of 5 upto 5 term

```
# Table of 5 up to 5 terms
print("5 x 1 =", 5 * 1)
print("5 x 2 =", 5 * 2)
print("5 x 3 =", 5 * 3)
print("5 x 4 =", 5 * 4)
print("5 x 5 =", 5 * 5)
```

OUTPUT:

```
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
```


14 Program to check if a person can vote .

```
age = int(input("Enter your age"))
if age >= 18:
    print("You are eligible to vote")
else:
    print("You are not eligible to vote")
```

OUTPUT:

Enter your age: 20

You are eligible to vote

15. Program to check if a number is positive or negative.

```
num = float(input("Enter a number"))
if num >= 0:
    if num == 0:
        print("Zero")
    else:
        print("Positive number")
else:
    print("Negative number")
```

OUTPUT:

Enter a number: 5

Positive number

16. To check the grades of a student.

```
marks = float(input("Enter marks"))
```

```
if marks > 75:
```

```
    print("A Grade")
```

```
elif marks > 60 :
```

```
    print(" B Grade")
```

```
else:
```

```
    print("C Grade")
```

OUTPUT:

Enter marks: 80

A Grade

17. To print first 10 natural numbers.

```
i = 1
```

```
n = 10
```

```
while i <= n:
```

```
    print(i)
```

```
    i = i + 1
```

OUTPUT:

1

2

3

4

5

6

7

8

9

10

18. To print first 10 even numbers.

```
i = 1 # Counter for the first 10 even numbers
```

```
num = 2 # Start with the first even number
```

```
while i <= 10:
```

```
    print(num)
```

```
    num += 2 # Increment by 2 to get the next even number
```

```
    i += 1 # Increment the counter
```

OUTPUT:

2

4

6

8

10

12

14

16

18

20

19. To print sum of 10 natural numbers.

```
n = 10
```

```
sum = 0
```

```
i = 1
```

```
while i <= n:
```

```
    sum = sum + i
```

```
    i = i + 1
```

```
print("The sum = ", sum)
```

OUTPUT:

The sum = 55

20. Create a list of children selected for Science quiz with following names:

```
List = ["Aryan", "Sonakshi", "Vikram", "Sandhya", "Sonal", "Isha", "Karan"]
```

```
print(List)
```

```
del List[2] # Removes the element at index 2 ("Vikram")
```

```
List.append("Jay") # Adds "Jay" to the end of the list
```

```
del List[1] # Removes the element at index 1 ("Sonakshi")
```

```
print(List)
```

OUTPUT:

['Aryan', 'Sonakshi', 'Vikram', 'Sandhya', 'Sonal', 'Isha', 'Karan']

['Aryan', 'Sandhya', 'Sonal', 'Isha', 'Karan', 'Jay']

21 To accept a word from the user and reverses it.

```
word = input("Input a word to reverse: ")
for char in range(len(word) - 1, -1, -1):
    print(word[char], end="")
print("\n")
```

OUTPUT:

Input a word to reverse: hello
olleh

22 To turn every item of a list into its square.

```
numbers = [1, 2, 3, 4, 5, 6]
res = []
for i in numbers:
    res.append(i * i)
print(numbers)
print(res)
```

OUTPUT:

[1, 2, 3, 4, 5, 6]
[1, 4, 9, 16, 25, 36]



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EDUCATION**

PM SHRI KENDRIYA VIDYALAYA NO. 1 DHANBAD

**A PRACTICAL RECORD FILE IS SUBMITTED FOR THE
ARTIFICIAL INTELLIGENCE**

Subject Code: 417

CLASS 9

SESSION -2024-25

**SUBMITTED BY: [NAME OF STUDENT]
SUBJECT TEACHER (CS) : MISS NILANJANA MAITI
CLASS: [CLASS]
SECTION:[SECTION]
ROLL NO: [XXXXXXXX]**

PM SHRI KENDRIYA VIDYALAYA NO 1 DHANBAD

Practical File

Class-IX

Session 2024-2025

ARTIFICIAL INTELLIGENCE (417)

Submitted By:

Name:.....

Roll :.....

Class & Section:

-

Submitted to:

MISS NILANJANA MAITI

PGT(CS)

ACKNOWLEDGEMENT

*I wish to express my deep sense of gratitude and indebtedness to our learned teacher **MISS NILANJANA MAITI, PGT CS, PM Shri Kendriya Vidyalaya No.1 Dhanbad** for her invaluable help, advice and guidance in the preparation of this project.*

*I am also greatly indebted to our principal **MR. SHAILENDRA SHARMA** and school authorities for providing me with the facilities and requisite laboratory conditions for making this practical file.*

I also extend my thanks to a number of teachers, my classmates and friends who helped me to complete this practical file successfully.

[Name of Student]

CERTIFICATE

This is to certify that **[Name of Student]**, student of Class IX, **PM SHRI Kendriya Vidyalaya No.1 Dhanbad** has completed the **PRACTICAL FILE** during the academic year 2024-25 towards partial fulfillment of credit for the **COMPUTER SCIENCE** practical evaluation of 2024-25 and submitted satisfactory report, as compiled in the following pages, under my supervision.

Total number of practical certified are : 22.

*Internal Examiner
Signature*

*External Examiner
Signature*

Date:

School Seal

*Principal
Signature*

**PM SHRI KENDRIYA VIDYALAYA NO 1 DHANBAD
ACADEMIC SESSION 2024-2025**

WINTER HOLIDAY HOMEWORK CLASS- IX

(ENGLISH)

(NOTE: Write all the assignments in A4 size paper and add in your portfolio file)

Q.1 Develop a short story in 100-120 words, using the following hints.

(Hints: Four animals – a wildcat, a mongoose, a rat and an owl – live in a tree. Owl and mongoose afraid of the cat. Rat afraid of all the three. One day cat got caught in a trap. Everyone happy. Owl wants to eat rat. Mongoose wants to eat rat. Rat knows he is in trouble. Quickly nibbles at the net. Saves cat. Seeing cat owl and mongoose flee. Rat also runs and saves his life.)

Q 2. You are going on a school picnic with your classmates and teachers. You are very excited. The night before the trip you sit down to write your diary. Describe what you have planned for the picnic and how you hope to enjoy yourself there. You are Rajesh. Write your diary in 100-150 words.

Q 3. Write 5 examples of each part of each tenses.

PM SHRI KENDRIYA VIDYALAYA NO 1 DHANBAD
ACADEMIC SESSION 2024-2025

कक्षा 9वीं

शतकालन अवकाश गृहकार्य 2024

1. 10 पृष्ठ सुलेख ललखना।
2. कोई एक लघुकथा ललखें।
3. अलंकार और समास के भेद को ललखते हुए प्रत्येक के चार-चार उदाहरण ललखें।
4. ग्राम श्री कललता का सार ललखो
5. परीक्षा पररणाम आने के बाद दो लमत्ोों के मध्य संलौाद ललखें। 6. लनबन्ध ललखो:
 - 1 दहेज प्रथा
 - 2 आपका लप्रय अध्यापक।
- 7 पाठ्य पुस्तक मंगाने हेतु लपता जी को पत् ललखखए।

PM SHRI KENDRIYA VIDYALAYA NO 1 DHANBAD
ACADEMIC SESSION 2024-2025

("श तकाल न" – अवकास- गृह कार्य)
कक्षा-षष्ठ (IX) –"अ", "ब", "स"
ववषर् –सस्कृत

प्रश्न-1 वनमूलखित पाठो के सभ प्रश्नोत्तर वलले:-

1. "कर्यणा र्ीावत सवसखिर्"
2. ववजतायर् स्वदेशः
3. कवार्ीावर् वर्ीावर् र्ीावर्

नोट- सभ प्रश्नोत्तर TEXT BOOK कक्षा नवर्

वयणका से वलले:-

**PM SHRI KENDRIYA VIDYALAYA NO 1 DHANBAD
ACADEMIC SESSION 2024- 2025**

WINTER BREAK HOMEWORK

CLASS – 9

SUBJECT : SCIENCE

PHYSICS:

Q1. Complete NCERT Exercise of Following Chapters in Notebook:

1. Motion
2. Laws of Motion
3. NCERT Exemplar Questions

CHEMISTRY:

Q1. Solve and practice all in-text Questions and Examples

Q2. Practice Previous Year Paper's.

Q3. Practice the following Topics:

1. State of Matter
2. Compressibility
3. Latent Heat
4. Evaporation and Boiling
5. Heterogeneous Mixture
6. Element
7. Compound and Mixture Difference
8. Distillation

BIOLOGY:

Q1. Practice the In Text Questions and NCERT Questions of Chapter 5,6,13

Q2. Practice of Diagram's Plant Cell, Animal Cell, Nerve Muscle cell

PM SHREE KENDRIYA VIDYALAYA NO 1 DHANBAD

WINTER BREAK HOMEWORK, 2024-25

**CLASS IX
SOCIAL SCIENCE**

1. Discuss the major reasons for poverty in India?
2. On an outline map of India, show the following:
 - (i) Area receiving rainfall over 400 cm
 - (ii) Area receiving less than 20 cm of rainfall.
3. On an outline map of the world locate and label the following major countries of First World War
 - Central Powers
 - Allied Powers
4. Complete exercise questions and answers of all taught chapters
5. Distinguish between the following;
 - (I) Lok Sabha and the Rajya Sabha.
 - (II) Political Executive and Permanent Executive

Q6. Explore the implications of climate change on a specific region of your choice. Analyze the environmental, social, and economic effects of climate change in that region. Discuss the role of human activities and propose sustainable measures to mitigate the impact.

Q7. Investigate the role of money and media in influencing electoral politics. Examine how these factors shape public opinion, candidate selection, and election outcomes. Discuss the challenges posed by the increasing role of money and media in the democratic process and suggest.

Q8. Collect information about the Jharkhand assembly elections that take place during this session. While collecting news items, divide these into three parts:

A. Important events that took place before the election – main agenda discussed by political parties; information about people’s demand; role of the Election Commission.

B. Important events on the day of the election and counting – turnout in elections; reports of malpractice; re-polls; the types of predictions made; and the final outcome.

C. Post elections – reasons offered by political parties for winning or losing elections; analysis of the election verdict by the media; selection of the Chief Minister.

Q9. What are the challenges to free and fair election?

Q10. What is the role of Election Commission of India?

**PM SHRI KENDRIYA VIDYALAYA NO 1 DHANBAD
ACADEMIC SESSION 2024-2025**

WINTER BREAK HOMEWORK

CLASS- 9

SUBJECT : DRAWING

1. Make a Christmas or New Year Greeting Card and paste it in your drawing copy.
2. Make a painting "Mantras given in Exam Warriors of Hon'ble Prime Minister of India".

**PM SHRI KENDRIYA VIDYALAYA NO 1 DHANBAD
ACADEMIC SESSION 2024-2025**

WINTER BREAK HOMEWORK

Subject -science

1. Describe the Bohr-Bury scheme for the distribution of electrons in an atom.
2. Describe and draw a level diagram for the Alpha particle scattering experiment.
3. Define isotopes and isobars.
4. State and explain by giving a suitable example the law of constant proportions
5. Calculate the percentage of CO₂ in CaCO₃.
6. What is an echo? How is echo formed.
7. Draw a neat and labelled diagram of the human ear. with the help of this diagram explain the construction and working of the human ear.
8. What is Sonar? Explain its use.
9. Name two sound absorbing materials which can make our big room less echoey.
10. Write the full name of SONAR.
