

BCM SCHOOL BASANT CITY PAKHOWAL ROAD LUDHIANA

Std:- X

SUBJECT – SOCIAL SCIENCE

1. Make a poster of Bharat Mata on A4 size sheet. (From Roll No 1 to 8)
2. Draw National Flag used during Swadeshi Movement on A4 size sheet. (From roll no 9- 14)
3. Prepare the chart on classification of sectors with the help of pictures. (From roll no 15 to 21)
4. Compare the Organized and Unorganized sector with the help of picture. (From roll no 22 to 30)
5. Compare the employment opportunities in three sectors in the form of Bar Graph. (From roll no 31 onwards)
6. Map Work: (Common for all the students)
 - (i) Types of soils (use colours for different soils) Chapter – 1
 - (ii) Major Dams Chapter – 3 (Water Resources)
Dams:

| | | |
|----------------------|-------------------|------------|
| a. Salal | b. Bhakra Nangal | c. Tehri |
| d. Rana Pratap Sagar | e. Sardar Sarovar | f. Hirakud |
| g. Nagarjuna Sagar | h. Tungabhadra | |
7. Prepare a poster on 'Disaster Management' (Common for all)
8. Art Integrated Activity: (common for all students)

Compare the soil type, Climate, Rivers and Crops of Punjab and Odisha.
9. Project Work (List is attached)

BCM SEN. SEC. SCHOOL, BASANT CITY, LUDHIANA
CLASS – X

TOPICS FOR PROJECT
SESSION – 2026-27

- ✓ **Students will choose the topic according to their Roll No.**
- ✓ **Any project submitted that is not according to the roll Number will not be accepted.**

| Roll No | Topic for Project |
|----------------|--|
| 1 | CONSUMER RIGHTS |
| 2 | SUSTAINABLE DEVELOPMENT – NEED OF THE HOUR |
| 3 | DRUG ADDICTION |
| 4 | CHILD LABOUR |
| 5 | ILLEGAL IMMIGRATION |
| 6 | HUMAN RIGHTS VIOLATION |
| 7 | TERRORISM |
| 8 | INEQUALITY ON THE BASIS OF GENDER |
| 9 | COMMUNALISM |
| 10 | ECOLOGICAL CRISIS |
| 11 | ILLITERACY – LACK OF EDUCATIONAL FACILITY |
| 12 | CONQUERING DISEASES |
| 13 | CRIME AGAINST WOMEN |
| 14 | REVERSING POVERTY |
| 15 | NATUAL DISASTER |
| 16 | MAN MADE DISASTERS |
| 17 | STANDARDIZATION OF PRODUCT |
| 18 | CONSUMER RIGHTS |
| 19 | SUSTAINABLE DEVELOPMENT – NEED OF THE HOUR |
| 20 | DRUG ADDICTION |
| 21 | CHILD LABOUR |
| 22 | ILLEGAL IMMIGRATION |
| 23 | HUMAN RIGHTS VIOLATION |
| 24 | TERRORISM |
| 25 | INEQUALITY ON THE BASIS OF GENDER |
| 26 | COMMUNALISM |
| 27 | ECOLOGICAL CRISIS |

| | |
|----|---|
| 28 | ILLITERACY – LACK OF EDUCATIONAL FACILITY |
| 29 | CONQUERING DISEASES |
| 30 | CRIME AGAINST WOMEN |
| 31 | REVERSING POVERTY |
| 32 | NATUAL DISASTER |
| 33 | MAN MADE DISASTERS |
| 34 | ECOLOGICAL CRISIS |
| 35 | TERRORISM |
| 36 | IMPACT OF COVID 19 |
| 37 | CHILD LABOUR |

FORMAT OF PROJECT:



BCM SEN. SEC. SCHOOL,

BASANT CITY,

LUDHIANA

SOCIAL SCIENCE PROJECT REPORT

SESSION : 2026-27

TOPIC

Submitted To:

Submitted By:

Name :-

Class:-

Roll No:-

BCM SEN. SEC. SCHOOL, BASANT CITY, LUDHIANA

DEPARTMENT OF SOCIAL SCIENCE

CERTIFICATE

This is to certify that _____(name of student), a student of class X has successfully conducted the report on the project _____(topic of Project) under the guidance of _____(Subject Teacher) during the year 2026-27 in partial fulfillment of Social Science practical examination conducted by AISSE, New Delhi.

Name of Examiner

Name of Subject Teacher

Signature of Examiner

Signature of Subject Teacher

ACKNOWLEDGEMENT

In the present world of competition there is a race of existence in which those are having will to come forward succeed. Project is like a bridge between theoretical and practical working. With this willing I joined this particular project.

First of all, I am grateful to The Almighty God for establishing me to complete this project.

I wish to express my sincere thanks to _____ **(Principal) of BCM Sen. Sec. School, Basant City, Ludhiana)** for providing me with all necessary facilities.

I place on record, my sincere gratitude to _____ **(Co-ordinator)** for her constant encouragement.

I also thank _____ (Social Science Teacher), Department of Social Science. I am extremely grateful and indebted to her for her expert, sincere and valuable guidance and encouragement extended to me.

I take this opportunity to record my sincere thanks to all the faculty members for their help and encouragement. I also thank my parents for their unceasing encouragement and support.

I also place on record my sense of gratitude to one and all who directly or indirectly have lent their helping in this venture.

Page No 5 – 18

INTRODUCTION AND SUBJECT MATTER ALONG WITH PICTURES, MAPS AND GRAPH

Page No 19 –

SUMMARY

Page No 20 –

BIBLIOGRAPHY

Special Note:-

- ✓ The project should have a good presentation and creativity.
- ✓ Use single line assignment sheets for your project report.
- ✓ Use glitter pens if necessary.
- ✓ Decorate your file in well manner.

SUBJECT- MATHEMATICS

Do the following activities in practical notebook.

ACTIVITIES:-

1. To make a graphical exploration of zeroes of a quadratic polynomial.
2. For given a system of simultaneous linear equations graphically such that system is in-consistent.
3. To derive a formula for the sum of the first n natural numbers.
4. Given a sequence of numbers, to find out whether it is an arithmetic progression or not.
5. To verify Basic Proportionality Theorem.
6. To verify the fundamental identity: $\sin^2 A + \cos^2 A = 1$
7. To calculate the height of a tree by using trigonometry.

Solve the following assignment in your notebook.

MATHS-ASSIGNMENT

1. If the equation $(1 + m^2)x^2 + 2mcx + c^2 - a^2 = 0$ has equal roots then show that $c^2 = a^2(1 + m^2)$
2. The sum of two numbers is 9 and the sum of their reciprocals is $\frac{1}{2}$. Find the numbers.
3. Find the value of k for which the roots of equation $3x^2 - 10x + k = 0$ are reciprocal of each other.
4. Find the value of p such that the quadratic equation $(p-12)x^2 - 2(p-12)x + 2 = 0$ has equal roots.
5. What is the HCF of smallest composite number and smallest prime number?
6. LCM of co-prime number is always _____.
7. What is HCF (a, b) = ? If $a = x^3y^2$ and $b = xy^3$; x and y are prime numbers.
8. A circular field has a circumference of 360 km. Three cyclists start together and can 48, 60 and 72 km a day around the field. When will they meet again?
9. Prove that $\sqrt{7}$ is irrational. Hence find $2 - \sqrt{7}$ is also irrational.
10. If sum of LCM & HCF of two numbers is 1260 and their LCM is 900 more than their HCF. Find the product of two numbers.
11. If α & β are zeroes of the polynomial $2x^2 + 5x + k$ satisfying $\alpha^2 + \beta^2 + \alpha\beta = \frac{21}{4}$ then find the value of k.
12. If α & β are zeroes of the polynomial $x^2 + x - 2$, then find the polynomial whose zeroes are $(2\alpha + 1)$ and $(2\beta + 1)$.
13. Find the zeroes of $p(x) = 4\sqrt{3}x^2 + 5x - 2\sqrt{3}$ and verify relationship between zeroes and its coefficients.
14. Place A, B are 90 km apart. Car A starts at point A & car B at B if they go in same directions they meet after 9 hrs & in opposite direction in $\frac{9}{4}$ hrs. find their speed.
15. Solve graphically the following pair of linear equations:
 $2y - 3x = 14$; $2x + 3y = 8$ Hence, shade the region enclosed by these lines and Y axis.

16. The mode of the following frequency distribution is 34.5, Find the value of x.

| | | | | | |
|-----------|------|-------|-------|-------|-------|
| Class | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 |
| Frequency | 4 | 8 | 10 | x | 8 |

17. The median of the distribution given below is 14.4. Find the values of x and y, if the sum of frequency is 20.

| | | | | | |
|-----------|-----|------|-------|-------|-------|
| Class | 0-6 | 6-12 | 12-18 | 18-24 | 24-30 |
| Frequency | 4 | x | 5 | y | 1 |

18. The arithmetic mean of the following frequency distribution is 50. Find the value of p.

| | | | | | |
|-----------|------|-------|-------|-------|--------|
| Class | 0-20 | 20-40 | 40-60 | 60-80 | 80-100 |
| Frequency | 17 | p | 32 | 24 | 19 |

19. Two coins are tossed simultaneously. What is the probability of getting

- (i) At least one head
- (ii) At most one tail
- (iii) A head and a tail

20. CASE BASED QUESTION:

Tushara took a pack of 52 cards. She kept aside all the black face cards and shuffled the remaining cards well. Based on the above information answer the following questions.

- (i) Write the number of total possible outcomes.
- (ii) She draws a card from the well-shuffled pack of remaining cards.



What is the probability that the card is a face card?

- (iii) Write the probability of drawing a black card.
- (iv) What is the probability of getting neither a black card nor an ace card?

Prepare a working model according to your Roll no.

| ROLL NO. | WORKING MODELS |
|----------|--|
| 1 - 10 | Introduction to Trigonometry: Build a working clinometer using a straw, protractor, and weighted string to measure real-world angles of elevation in your neighborhood. |
| 11 - 20 | Triangles: Assemble a wooden or cardboard "Similar Triangle Theorem" (e.g., BPT) model with rotating pivots, proving $(AD/DB = AE/EC)$ regardless of the angle. |

| | |
|-------------------|--|
| 21 - 30 | Surface Areas & Volumes: Build hollow, interlocking 3D geometric shapes (cube, cone, cylinder, and sphere) using transparent plastic or cardboard to calculate volume and compare capacities. |
| 30 Onwards | Coordinate Geometry: Make a pegboard with rubber bands where you can instantly calculate the distance between coordinates or the section formula. |

SUBJECT- HINDI
HOLIDAY HOMEWORK(2026-27)

1. कला समेकित गतिविधि (Art Integrated Activity) विषय: "पंजाब से ओडिशा तक: एक सांस्कृतिक यात्रा"।

गतिविधि: छात्र एक सचित्र ट्रेवल ब्रोशर (Travel Brochure) डिजाइन करेंगे। इसमें एक तरफ पंजाब के प्रमुख ऐतिहासिक स्थल (स्वर्ण मंदिर, जलियांवाला बाग) और दूसरी तरफ ओडिशा के स्थल (कोणार्क सूर्य मंदिर, जगन्नाथ पुरी, चिलिका झील) को दर्शाया जाएगा कलात्मक बॉर्डर और आकर्षक नारों (Slogans) का प्रयोग अनिवार्य होगा।

2. पोस्टर मेकिंग: "सच्ची देशभक्ति क्या है?" विषय पर एक सुंदर स्लोगन के साथ पोस्टर बनाना।

3. विज्ञापन लेखन: कैप्टन की चश्मों की दुकान के लिए 'ओडिशा की पारंपरिक पटचित्र कला' के बॉर्डर का उपयोग करते हुए एक आकर्षक विज्ञापन तैयार करें।

4. व्याकरण: पदपरिचय के विकारी शब्दों के पाँचों भेदों (संज्ञा, सर्वनाम, विशेषण, क्रिया, क्रियाविशेषण) को दर्शाने वाला एक रंगीन इन्फोग्राफिक (Infographic) या माइंड मैप तैयार करें।

प्रत्येक भेद के लिए एक अलग रंग का उपयोग होगा। उदाहरणों को छोटे-छोटे चित्रों या प्रतीकों (Symbols) के माध्यम से दर्शाना होगा।

5. पोर्टफोलियो तैयार करें।

ਜਮਾਤ ਦਸਵੀਂ

ਵਿਸ਼ਾ ਪੰਜਾਬੀ

1. **ਸਾਹਿਤਿਕ ਰਿਵਿਊ (Video Vlog)** ਆਪਣੀ ਪਾਠ-ਪੁਸਤਕ ਵੰਨਗੀ ਵਿੱਚੋਂ ਕਹਾਣੀ 'ਧਰਤੀ ਹੇਠਲਾ ਬਲਦ' ਪੜ੍ਹੋ, ਉਸ ਕਹਾਣੀ ਦੇ ਮੁੱਖ ਪਾਤਰ ਦੀ ਮਾਨਸਿਕ ਸਥਿਤੀ ਤੇ ਸਮਾਜਿਕ ਹਾਲਾਤਾਂ ਬਾਰੇ ਦੱਸਦੇ ਹੋਏ ਇੱਕ- ਦੋ ਮਿੰਟ ਦੀ ਵੀਡੀਓ ਬਣਾਓ, ਵੀਡੀਓ ਵਿੱਚ ਇਹ ਵੀ ਦੱਸੋ ਕਿ ਜੇਕਰ ਤੁਸੀਂ ਉਸ ਪਾਤਰ ਦੀ ਥਾਂ ਹੁੰਦੇ ਤਾਂ ਉਹ ਸਥਿਤੀ ਵਿੱਚ ਕੀ ਕਰਦੇ ?
2. 1 ਤੋਂ 50 ਤੱਕ ਗੁਰਮੁਖੀ, ਪੰਜਾਬੀ ਤੇ ਅੰਕਾਂ ਵਿੱਚ ਗਿਣਤੀ ਲਿਖੋ।
3. **ਵਿਗਿਆਨਕ ਤੇ ਸਮਾਜਿਕ ਚੇਤਨਾ (Scientific and social awareness)** ਸ੍ਰੀ ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਦੀ ਬਾਣੀ 'ਸੋ ਕਿਓਂ ਮੰਦਾ ਆਖੀਐ' ਦੇ ਸੰਦੇਸ਼ ਨੂੰ ਮੁੱਖ ਰੱਖਦੇ ਹੋਏ ਇਸਤਰੀ ਦੇ ਸਸ਼ਕਤੀਕਰਨ ਨੂੰ ਹੁਲਾਰਾ ਦੇਣ ਲਈ ਪੰਜਾਬੀ ਵਿੱਚ ਪ੍ਰਭਾਵਸ਼ਾਲੀ ਪੰਜ ਸਲੋਗਨ ਬਣਾਓ।
4. **ਦ੍ਰਿਸ਼ ਵਰਨਣ (ਮੇਰੀ ਨਜ਼ਰ ਤੋਂ) Creative Perspective** ਸਿਲੇਬਸ ਦੇ ਚਿੱਤਰ- ਵਰਨਣ ਅਨੁਸਾਰ ਆਪਣੇ ਘਰ ਦੀ ਬਾਲਕੋਨੀ /ਛੱਤ ਤੋਂ ਜਾਂ ਕਿਸੇ ਸਫਰ ਦੌਰਾਨ ਬਾਹਰ ਦੇ ਦ੍ਰਿਸ਼ ਨੂੰ ਦੇਖਦੇ ਹੋਏ ਇੱਕ ਆਮ ਇਨਸਾਨ ਵਾਂਗ ਨਹੀਂ ਸਗੋਂ ਇੱਕ ਕਵੀ ਜਾਂ ਲੇਖਕ ਦੀ ਨਜ਼ਰ ਤੋਂ 50 ਸ਼ਬਦਾਂ ਦੀ ਇੱਕ ਲਿਖਤ ਤਿਆਰ ਕਰੋ।
5. **ਪੰਜਾਬ ਅਤੇ ਉੜੀਸਾ** ਰਾਜਾਂ ਦੀ ਭਾਸ਼ਾ ਸਾਂਝ (ਭਾਸ਼ਾ ਸੰਗਮ) ਵਧਾਉਣ ਲਈ, ਰੋਜ਼ਾਨਾ ਵਰਤੋਂ ਦੇ ਕੋਈ 10 ਸਧਾਰਨ ਵਾਕ (ਜਿਵੇਂ: ਹਾਲ-ਚਾਲ ਪੁੱਛਣਾ, ਨਾਮ ਦੱਸਣਾ) ਪੰਜਾਬੀ, ਅੰਗਰੇਜ਼ੀ ਅਤੇ ਉੜੀਆ ਭਾਸ਼ਾ ਵਿੱਚ A4 ਸ਼ੀਟ 'ਤੇ ਸੁੰਦਰ ਲਿਖਾਈ ਵਿੱਚ ਲਿਖੋ।
6. **ਪੀ.ਏ. ਸਾਈਕਲ** -2 ਦੀ ਤਿਆਰੀ ਕਰੋ।

SUBJECT- SCIENCE

PHYSICS

1. Draw all the ray diagrams for all cases of the image formation in case of concave mirror, convex mirror, convex lens and concave lens.
2. Write all **six activities of Physics** in the practical file.
Instructions for writing and activities contents will be shared in the respective class groups.
3. Do **20 numerical** from the chapter "Light Reflection and Refraction".
4. Revise the complete chapter "Light Reflection and Refraction".

BIOLOGY

1. Assignment Work:

Complete the assignment of **Chapter-5: Life Processes** in your Science notebook.

2. Diagram Work (Art Integration)

For Odd Roll Numbers :

1. Ray Diagrams of Mirrors
2. Open and Closed Stomata
3. Human Digestive System
4. Human Respiratory System

For Even Roll Numbers:

1. Ray Diagrams of Lenses
2. Human Heart
3. Human Excretory System
4. Structure of Nephron

3. Art Integrated Project:

Topic: Punjab-Odisha Environmental Comparison Project

Prepare an Art Integrated Project related to "**Our Environment**" showing comparison and integration between the states **Punjab and Odisha**.

Roll Number Wise Project Allotment

➤ Roll No. 1-10 : River Conservation Project

Compare:

- **Punjab:** Conservation of River Satluj/Beas
- **Odisha:** Conservation of River Mahanadi

Include:

- Aim and Objectives
- Causes of river pollution
- Steps taken by government and people
- Comparison of river usage and conservation
- At least 5 photographs/pictures

➤ **Roll No. 11-20 : Green India Mission & Forest Conservation**

Compare:

- **Punjab:** Plantation drives and greenery initiatives
- **Odisha:** Forest conservation and mangrove protection

Include:

- Afforestation programmes
- Importance of forests in both states
- Impact on environment and wildlife
- Government initiatives
- At least 5 photographs/pictures

➤ **Roll No. 21-30 : Swachh Bharat Abhiyan**

Compare cleanliness initiatives in:

- **Punjab:** Smart city/clean village campaigns
- **Odisha:** Beach cleanliness and waste management drives

Include:

- Cleanliness awareness programmes
- Waste segregation methods
- Role of citizens and students
- Outcomes of the campaign
- At least 5 photographs/pictures

➤ **Roll No. 31 Onwards: Wildlife & Biodiversity Conservation**

Compare:

- **Punjab:** Harike Wetland/Bird Sanctuary
- **Odisha:** Olive Ridley Turtle Conservation or Simlipal National Park

Include:

- Biodiversity found in both states
- Threats to wildlife
- Conservation measures
- Importance of ecosystem balance
- At least 5 photographs/pictures

Project Guidelines:

The project must include:

- Cover Page
- Index
- Aim and Objectives
- Introduction

- Comparison between Punjab and Odisha
- Conclusion
- Bibliography
- Minimum 5 relevant photographs/pictures

Students are advised to complete the work neatly and creatively.

CHEMSITRY:

1. Do the given Assignment in note book.
2. Write balanced equations for 10 chemical reactions.
3. Prepare a chart of common acids and bases used in daily life.
4. Solve 15 competency-based questions from the chapters 1 and 2.
5. Complete Practical File Work.

6. Art Integrated Activity

Theme: "Chemistry for Sustainable Development"

Prepare :

1. Working model showing rainwater harvesting and water treatment.

2. Odisha & Punjab Integrated Holiday Homework

1. Food Chemistry Comparative Project

Compare traditional foods of:

Punjab

Odisha

Study:

Fermentation

Proteins and carbohydrates

Preservation methods

Changes during cooking

Prepare:

a) Recipe cards

b) Nutrition table

c) Chemical changes involved

2. Soil Chemistry Investigation

Compare soil samples from:

Agricultural regions of Punjab

Coastal/laterite regions of Odisha

Study:

Texture

Water retention

pH value

Suitability for crops

Prepare:

Soil report

Charts

Crop recommendation based on chemistry

Submission Guidelines:

All work must be neat and handwritten.

Assignment and practical file work should be submitted in separate notebooks/files.

Art Integrated Activity should be creative and original.

Last Date of Submission: First week after reopening of school.

Happy Learning and Happy Holidays!

SUBJECT- ENGLISH

1. Interdisciplinary Project

Topic - Plastic Pollution and Its Impact on Environment

You are Riya/Riyansh residing at 366, Model Town, Jalandhar. Deeply concerned about the growing menace of plastic waste, which is posing a serious threat to both land and aquatic life, write a letter to the Editor of a national daily highlighting the harmful effects of plastic pollution on marine ecosystems and human health. Also suggest effective measures to reduce its excessive use and promote environmental awareness among people. (to be done on A4 size sheet)

2. Art Integrated Project - Ek Bharat Shrestha Bharat

Prepare a **Poster** on A4 size sheet by uniting the traditions, heritage and tourist attractions of Punjab and Odisha.

3. Assignment

(Use ruled sheets)

Answer the following questions in 40-50 words.

Q1. Do you think destructive emotions can be controlled before they ruin relationships? Justify briefly.

Q2. What is the effect of using exaggerated situations in identifying wild animals?

Q3. The sun shall never set on so glorious human achievement. "What does Nelson Mandela mean by this statement?

Q4. How does the poem "Amanda!" reflect the psychological impact of constant control?

Q5. How is the loss of the ball symbolic of greater losses in life?

Q6. Dr Herriot is what every veterinary doctor should be. Do you agree? Why/Why not?

Q7. Compare and contrast Hari Singh with what he is at the beginning of the story to what he becomes in the end.

Q8. "Wisdom saves when strength fails" Discuss this statement in the light of story "The Midnight Visitor".

Answer the following questions in 100-120 words.

Q9. Fear is our biggest hurdle on the path of success. Discuss with special reference to the story 'His First Flight'.

Q10. Compare the role of nature in "Dust of Snow" and "Fire and Ice." How does nature influence human thoughts differently in both poems?

Subject: AI (417)

1. Task : Design Thinking (AI Project Cycle)

Scenario: You want to develop an AI solution to reduce food wastage in your school canteen.

- **Problem Scoping (Write):** Define the problem and list three key questions to investigate.
- **Data Collection (Research):** Identify 3 possible data sources to help your model detect wastage trends.
- **Model Plan (Think):** Describe what kind of AI model you'd build – Rule-based, Supervised or Unsupervised?

2. Task : Build an Ethical Framework

Scenario: Your school plans to use face-recognition-based attendance. There are concerns about misuse.

- List 3 ethical concerns you would raise as a student representative.

3. **Scenario:** You built a spam email detector. You tested it on 20 emails – 15 were spam, but it correctly detected only 12.

- Using the results, create a **confusion matrix** (TP, FP, TN, FN).
- Calculate **Accuracy**, **Precision**, and **Recall** using your matrix.
- Explain which metric matters most and why, in this case.

4. Case Study:

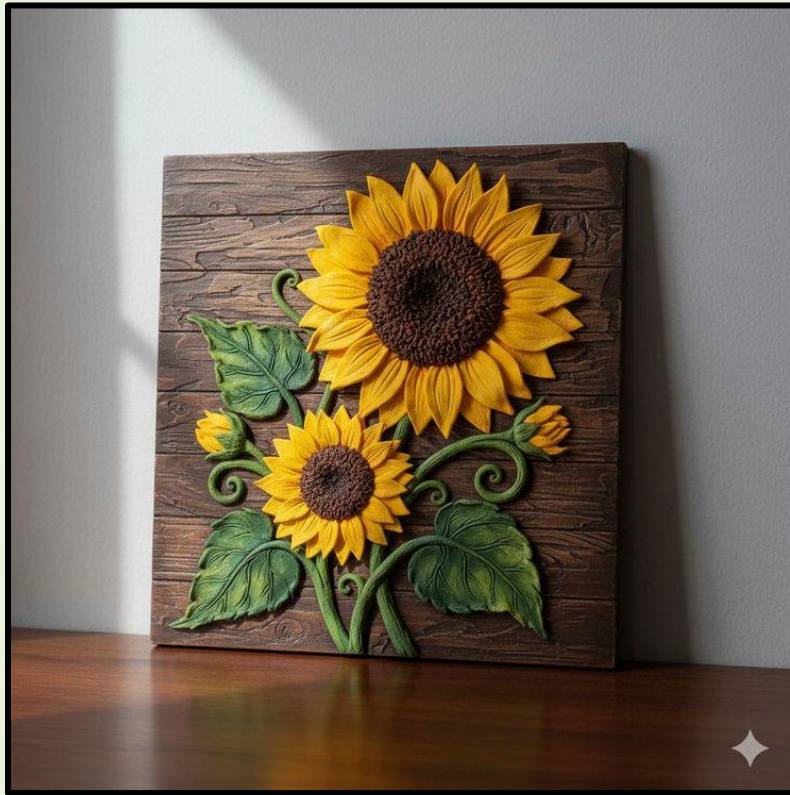
A music app wants to suggest songs to new users based on their mood. It has no previous user data.

- Which learning method should the app use?
- Justify your answer.

5. WAP in python:

- to Find the Largest of Three Numbers.
- to Print Multiplication Table
- to convert length given in kilometers into meters.

SUBJECT: ART



(HAND PAINTED 3D CANVAS SUBMISSION)

SUBMIT ONLY 1

MATERIAL REQUIRED

- CANVAS Size 12X16
- Acrylic colours
- Fevicol
- Brushes
- Fevicryl Moulded clay 2 packets