



**St. Mary's School, Dwarka**  
**Holiday Homework**  
**Class IX**  
**Worksheet 3**  
**Subject: English**

**General Instructions:**

- 1) The work should be done neatly and in a systematic way.
- 2) The given questions are to be done in the English notebook.
- 3) Attempt all questions.

**Q1. Read the following passage.**

**(1x5=5)**

Climate change is a pressing global issue that has far-reaching consequences for our planet and future generations. The Earth's climate system is experiencing significant changes due to human activities, primarily the burning of fossil fuels. The release of greenhouse gases, such as carbon dioxide, into the atmosphere has led to a rise in global temperatures, resulting in various environmental disruptions.

One of the most evident effects of climate change is the melting of polar ice caps and glaciers, leading to rising sea levels. This phenomenon poses a significant threat to coastal communities, as increased flooding and erosion become more prevalent. Furthermore, extreme weather events, including hurricanes, droughts, and heat waves, are becoming more frequent and intense, causing widespread damage to ecosystems and human infrastructure.

The impact of climate change extends beyond the environment and has implications for human health and well-being. The rising temperatures contribute to the spread of infectious diseases, affect agricultural productivity, and exacerbate food and water scarcity in many regions. Moreover, vulnerable populations, such as low-income communities and developing countries, bear the brunt of these adverse effects, facing disproportionate risks and challenges in adapting to a changing climate.

Addressing climate change requires a global effort to reduce greenhouse gas emissions and transition to sustainable and renewable energy sources. The development of clean technologies, such as solar and wind power, plays a crucial role in mitigating the effects of climate change. Additionally, adopting sustainable practices in sectors like transportation, agriculture, and waste management is essential for a more resilient and environmentally conscious future.

### Class IX Worksheet 3

**Based on your understanding of the passage, answer the questions given below:**

- i. What are the primary causes of climate change according to the passage? (1)
- ii. Which of the following is NOT mentioned as an effect of climate change? (1)
- a. melting of polar ice caps and glaciers
  - b. increased frequency of extreme weather events
  - c. a decline in the global temperature
  - d. rising sea levels resulting in floods
- iii. Climate change affects human health and well-being by \_\_\_\_\_ and \_\_\_\_\_. (1)
- iv. Which of the following is a clean technology mentioned in the passage? (1)
- a. fossil fuels
  - b. nuclear power
  - c. solar power
  - d. coal mining
- v. Suggest a suitable title for the above passage. (1)
- a. The Impact of Climate Change on the Environment
  - b. The Need for Sustainable Energy Solutions
  - c. Climate Change and Human Health
  - d. The Rising Threat of Global Warming

**Q2. Write a bio-sketch in about 100-120 words based on the given information. (5)**

#### **Bio-sketch of Indu Puri**

##### **Personal Information**

- born 11th September 1953, Kolkata, West Bengal
- former Indian international female Table Tennis sportsperson – 1970s and 1980s
- Won national women's singles title - a record eight times; highest rankings: International 63 (1985), Asian 8, and Commonwealth 2
- first Indian to beat a world champion, beating Pak Yung-Sun of North Korea in the 1978 Asian Table Tennis Championships at Kuala Lumpur.

##### **Awards and Achievements**

- Chairperson of Committee selection of Rajiv Gandhi Khel Ratna 2008 and Dhyanchand Award 2009 awardees.
- 'Observer' at various sporting events across the nation.
- Arjuna Award for the year 1979-1980.

**Q3. Fill in the blanks by choosing the correct option.**

(1/2 x 10=5)

Last night, I (a) \_\_\_\_\_ a movie with my friends. We (b) \_\_\_\_\_ to go to the theatre since last month. We (c) \_\_\_\_\_ popcorn and drinks. The movie (d) \_\_\_\_\_ an action-packed thriller. Throughout the film, we (e) \_\_\_\_\_ on the edge of our seats. After the movie, we (f) \_\_\_\_\_ about the plot and the performances. We (g) \_\_\_\_\_ it was one of the best movies we (h) \_\_\_\_\_ in a long time. We (i) \_\_\_\_\_ to watch another great movie together soon. It (j) \_\_\_\_\_ certainly a memorable and enjoyable experience.

- |                      |                  |                         |                   |
|----------------------|------------------|-------------------------|-------------------|
| (a) (i) watched      | (ii) will watch  | (iii) am watching       | (iv) have watched |
| (b) (i) plan         | (ii) will plan   | (iii) had been planning | (iv) have gone    |
| (c) (i) buy          | (ii) have bought | (iii) will buy          | (iv) bought       |
| (d) (i) have         | (ii) were        | (iii) will be           | (iv) was          |
| (e) (i) were sitting | (ii) sit         | (iii) will sit          | (iv) have sat     |
| (f) (i) talk         | (ii) talked      | (iii) will talk         | (iv) have talked  |
| (g) (i) will agree   | (ii) agree       | (iii) agreed            | (iv) have agreed  |
| (h) (i) have enjoyed | (ii) had enjoyed | (iii) will have enjoyed | (iv) enjoy        |
| (i) (i) can wait     | (ii) can't wait  | (iii) wait              | (iv) have waited  |
| (j) (i) will         | (ii) would       | (iii) was               | (iv) have         |

**Q4. Answer the following in 20-40 words.**

(2)

How does the child feel when he realizes he is separated from his parents?

**Q5. Answer the following in 60-80 words.**

(3)

In the poem "The Road Not Taken" what does the poet mean when he says, "I took the one less travelled by, and that has made all the difference." How does this line relate to making choices in life?

**Q6. Design three bookmarks in the shape of different musical instruments drawing inspiration from the lesson "The Sound of Music".**

(5)

**Subject: Hindi****प्रश्न 1 निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर निर्देश के अनुसार दीजिए: (1×5=5)**

स्वास्थ्य को पहले कहा जाता था कि यह शरीर की अच्छी तरह से कार्य करने की क्षमता है। हालांकि, जैसे-जैसे समय विकसित हुआ, स्वास्थ्य की परिभाषा भी विकसित हुई। स्वास्थ्य प्राथमिक चीज है जिसके बाद बाकी सब कुछ होता है। जब आप अच्छी सेहत बनाए रखते हैं, तो बाकी सब चीजें ठीक हो जाती हैं। इसी तरह, अच्छा स्वास्थ्य बनाए रखना बहुत सारे कारकों पर निर्भर है। यह उस हवा से होता है जिसमें आप सांस लेते हैं, जिस प्रकार के लोगों के साथ आप अपना समय बिताने के लिए चुनते हैं। स्वास्थ्य में बहुत सारे घटक होते हैं जो समान महत्व रखते हैं। यदि उनमें से एक भी लापता है, तो एक व्यक्ति पूरी तरह से स्वस्थ नहीं हो सकता है। पहला, हमारा शारीरिक स्वास्थ्य है। इसका मतलब शारीरिक रूप से और किसी भी तरह की बीमारी या बीमारी के अभाव में फिट होना है। जब आपका शारीरिक स्वास्थ्य अच्छा होगा, तो आपका जीवनकाल लंबा होगा। संतुलित भोजन करके व्यक्ति अपने शारीरिक स्वास्थ्य को बनाए रख सकता है। आवश्यक पोषक तत्वों को याद न करें; उनमें से प्रत्येक को उचित मात्रा में लें। दूसरे, आपको रोजाना व्यायाम करना चाहिए। यह केवल दस मिनट के लिए हो सकता है लेकिन इसे कभी याद न करें। यह आपके शरीर को शारीरिक फिटनेस बनाए रखने में मदद करेगा। इसके अलावा, हर समय जंक फूड का सेवन न करें। धूम्रपान या पेय न लें क्योंकि इसके गंभीर हानिकारक परिणाम हैं। अंत में, अपने फोन का उपयोग करने के बजाय नियमित रूप से पर्याप्त नींद लेने का प्रयास करें। इसके बाद, हम अपने मानसिक स्वास्थ्य के बारे में बात करते हैं। मानसिक स्वास्थ्य से तात्पर्य व्यक्ति के मनोवैज्ञानिक और भावनात्मक कल्याण से है। किसी व्यक्ति का मानसिक स्वास्थ्य उनकी भावनाओं और स्थितियों को संभालने के तरीके को प्रभावित करता है। हमें सकारात्मक और ध्यान लगाकर अपने मानसिक स्वास्थ्य को बनाए रखना चाहिए।

(i) स्वस्थ रहने के लिए किस प्रकार के लोगों के साथ समय बिताना चाहिए?

- (क) नकारात्मक सोच वाले
- (ख) अधिक सोचने वाले
- (ग) सकारात्मक सोच वाले
- (घ) सदा खेलने वाले

(ii) मनुष्य के जीवन में प्राथमिक किसे कहा गया है?

- (क) समाज को।
- (ख) स्वास्थ्य को।
- (ग) परिवार को।
- (घ) विश्व को।

(iii) निम्नलिखित कथन (A) तथा कारण (R) को ध्यानपूर्वक पढ़िए तथा दिए गए विकल्पों में से कोई एक सही विकल्प चुनकर लिखिए।

कथन (A) मानसिक स्वास्थ्य से तात्पर्य व्यक्ति के मनोवैज्ञानिक और भावनात्मक कल्याण से है।

कारण (R) स्वस्थ व्यक्ति अपना कार्य ठीक से नहीं कर पाता।

- 1 कथन(A) तथा कारण(R) दोनों गलत हैं।
  - 2 कथन(A) गलत है परन्तु कारण(R) सही है।
  - 3 कथन(A) सही है परन्तु कारण(R) गलत व्याख्या करता है।
  - 4 कथन(A) सही है और कारण(R) कथन की सही व्याख्या करता है।
- (iv) अच्छे शारीरिक स्वास्थ्य के लिए हमें क्या करना चाहिए है?
- (v) गद्यांश में प्रयुक्त 'इत' प्रत्यय युक्त शब्द ढूँढकर लिखिए।

**निम्नलिखित प्रश्नों के उत्तर निर्देश के अनुसार दीजिए:** (1×5=5)

प्रश्न 2 हरि, मिठाई शब्द हैं या पद हैं?

प्रश्न 3 निम्नलिखित शब्दों में उचित स्थान पर उपयुक्त अनुस्वार का प्रयोग कीजिए :  
(क) अदर (ख) मयक

प्रश्न 4 निम्नलिखित शब्दों में उचित स्थान पर उपयुक्त अनुनासिक का प्रयोग कीजिए :  
(क) धुआ (ख) आचल

प्रश्न 5 निम्नलिखित शब्दों में से मूल शब्द व उपसर्ग को अलग करके लिखिए:  
(क) खुशानसीब (ख) बदतमीज़

प्रश्न 6 निम्नलिखित शब्दों में से मूल शब्द व प्रत्यय को अलग करके लिखिए :  
(क) भारतीय (ख) सामाजिक

**प्रश्न 7 निम्नलिखित प्रश्नों के उत्तर दीजिए —** (1½×2=3)

- (क) पास-पड़ोस की दुकानों से पूछने पर लेखक को क्या पता चला ?
- (ख) प्रेम का धागा टूटने पर पहले की भांति क्यों नहीं हो पाता ?

**प्रश्न 8 निम्नलिखित प्रश्नों के उत्तर दीजिए —** (1×2=2)

- (क) मक्खनपुर पढ़ने जाने वाली बच्चों की टोली रास्ते में पड़ने वाले कुएं में डेला क्यों फँकती थी?
- (ख) सोनजुही की लता के नीचे बनी गिल्लू की समाधि से लेखिका के मन में किस विश्वास का जन्म होता है?

**प्रश्न 9** वृक्षारोपण के महत्त्व के विषय में दो मित्रों के बीच हुई बातचीत को संवाद के रूप में 100 शब्दों में लिखिए। (5×1=5)

**गतिविधि :**

**प्रश्न 10** एक सुंदर सा सामान बॉक्स बनाते हुए उस पर अनुस्वार अनुनासिक युक्त शब्द लिखिए। (5×1=5)

**Subject: Mathematics**

**General Instructions:**

- 1) The work should be done neatly and in a systematic way.
- 2) The given questions are to be done in the Math practice notebook.
- 3) Attempt all questions.

Q1. Simplify:  $(\sqrt{3}+\sqrt{7})(\sqrt{3}-\sqrt{7})$ . (2)

Q2. Rationalise the denominator of  $1/[7+3\sqrt{3}]$ . (2)

Q3. Verify whether 2 and 0 are zeroes of the polynomial  $x^2 - 2x$ . (2)

Q4. Simplify: (2)

(i)  $7^{2/3} \cdot 7^{1/5}$

(ii)  $10^{1/2}/10^{1/4}$

Q5. (a) Find the value of x if  $2^{x-7} \times 5^{x-4} = 1250$  (3)

(b) Find the value of x and y if:  $3^{x-1} = 9$  &  $4^{y+2} = 64$

Q6. Find the value of a & b if  $\frac{5 + 2\sqrt{3}}{7 + 4\sqrt{3}} = a + b\sqrt{3}$  (3)

Q7. If  $x = 3 + \sqrt{8}$ , then find the value of  $x^2 + 1/x^2$ . (3)

Q8. Find two irrational numbers lying between  $\sqrt{2}$  and  $\sqrt{3}$  (3)

Q9. Find two rational and irrational numbers between 0.3101 and 0.3222 (3)

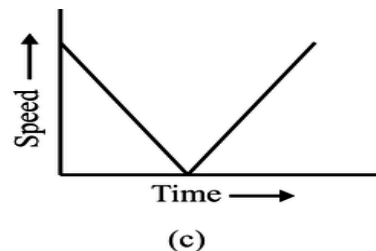
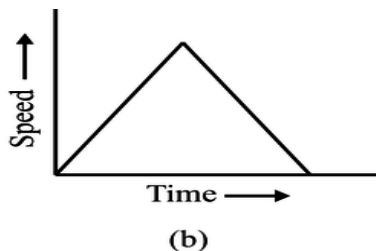
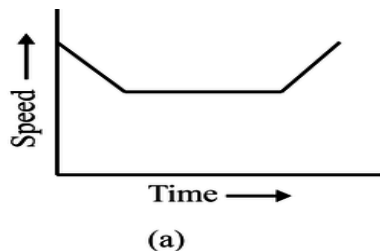
Q10. Give an example of two irrational numbers whose: (A) Sum is rational  
(B) product is rational (3)  
(C) quotient is rational.

**Subject: Science**

**General Instructions:**

- 1) Neatly write all the answers in your science notebook.
- 2) Attempt the questions keeping in mind the weightage of each question

Q1. Which of the following speed-time graphs represents the motion of a trolley that is first decelerating to attain a constant speed and then accelerating uniformly? (1)



- a) Graph A      b) Graph B      c) Graph C      d) Both Graph A and B

Q2. What is the significance of 'Zero Kelvin'? (1)

- (a) It is the temperature at which the particles of a liquid vaporize.
- (b) It is the temperature at which particles have minimal thermal motion.
- (c) It is the temperature at which carbon dioxide gas freezes.
- (d) It is the standard room temperature at sea level.

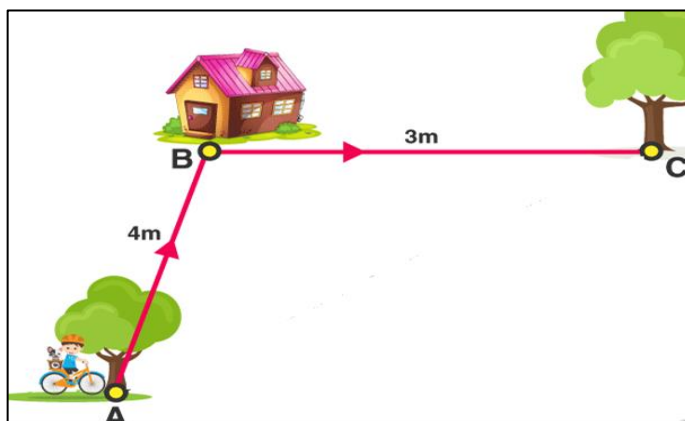
Q3. **Assertion** : An object may acquire acceleration even if it is moving at a constant speed. (1)

**Reason** : With the change in the direction of motion, an object can acquire acceleration. (2)

Q4. What will happen if: (2)

- a) A plant cell lacks cell wall.
- b) Golgi apparatus is removed from an animal cell.

Q5. Calculate the distance and displacement covered by a child when she moves from point A to C. (2)



Q6. Give reasons: (3)

- (i) Inter-conversion of states of matter is considered a physical change.
- (ii) Dew is observed on the grass in the morning.
- (iii) Solids cannot be compressed.

### Class IX Worksheet 3

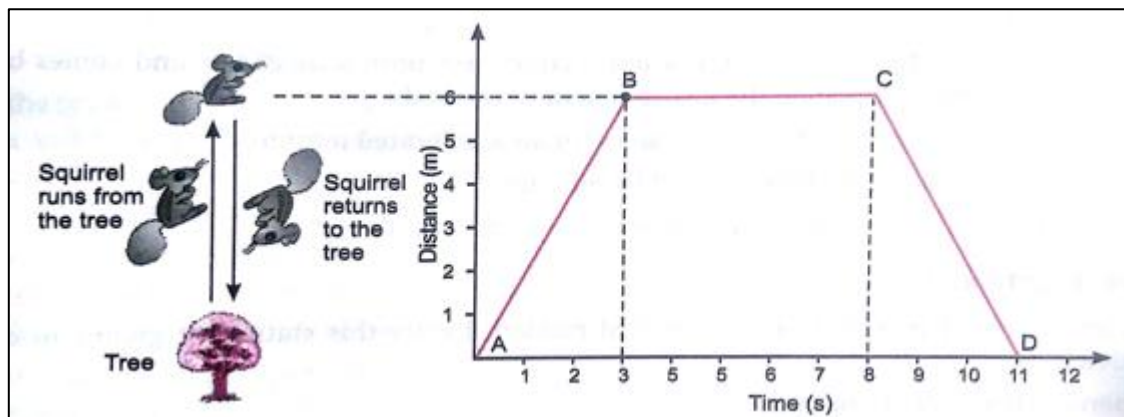
Q7. Draw a neat and well-labelled diagram of a plant cell. (3)

Q8. A student went to a picnic with his friends. The speedometer readings of his car are shown below. (3)

| Time    | Speedometer |
|---------|-------------|
| 9:25 am | 36 km/h     |
| 9:45 am | 72 km/h     |

- Calculate the acceleration of the car.
- Find the displacement by the car.

Q9. Suppose a squirrel is moving at a steady speed from the base of a tree towards some nuts. It then stays in the same position for a while, eating the nuts, before returning to the tree at the same speed. A graph is plotted with the distance covered by the squirrel on the x-axis and the time on the y-axis.



Observe the graph and answer the following questions: (4)

- Which part of the graph shows that the squirrel is not moving?
- Calculate the distance covered by the squirrel in 8 to 11 seconds.
- Calculate the speed of the squirrel from A to B.
- Calculate the total distance covered by the squirrel in the first 8 seconds.

Q10. **Activity** (5)

- Plan a drive from your home to visit a friend following a specific route provided by navigation app (GPS).
- Use the car's odometer or a GPS device to measure the distance travelled every 5 minutes.
- Plot the distance-time graph for the same.
- State the type of motion depicted by the shape of the graph.



**Subject: Social Science**

**General Instructions:**

- The work should be done neatly and in a systematic way.
- The given assignments are to be done in the respective notebooks.
- Write all the questions along with the answers.
- Maps and diagrams are to be pasted/done in the notebook.

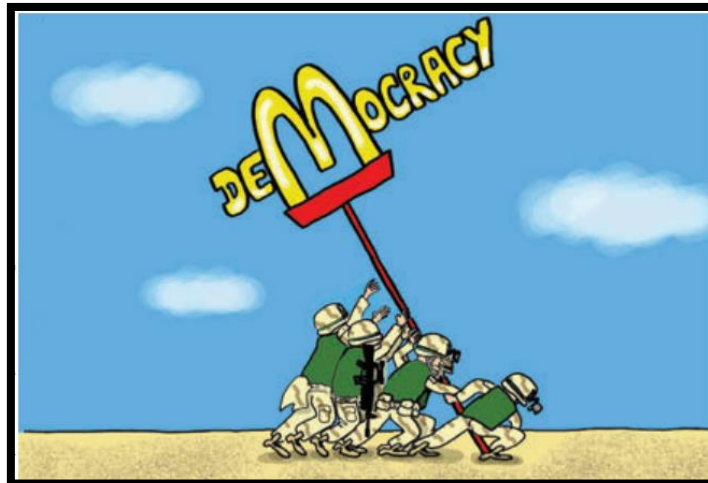
Q1. Who were Jadidists? (1)

Q2. Who sought build a cooperative community called 'New Harmony'? (1)

Q3. Which is the largest and smallest state of India area wise? (1)

Q4. Do you think that physical barrier is a hindrance in interaction with our neighbouring countries in modern times? Give some examples how we have overcome these difficulties in the present day. (2)

Q5. What do you think this cartoon is saying? Why is 'democracy' written the way it is? (3)



Q6. Compare the democratic system in China with Mexico. (3)

Q7. What are the ill effects of the Green Revolution? (3)

Q8. What can be done so that more non-farm production activities can be started in villages? (3)

Q9. Describe the French division of society. Also write any two main features of the French constitution of 1791. (5)

Q10. On the Political map of India, locate and label the following :- (3)

- (a) The strait separating Sri Lanka from India.
- (b) The eastern and the western-most longitude in degrees.
- (c) The States through which the Tropic of Cancer passes.

**Subject: Artificial Intelligence**

**Note:** Open a MS-Word file and write down all the practical question.


Take the snip of the program code and the output window.

Then paste it under each practical.

Save the file as a pdf and upload under the ASSIGNMENT created in MS-Teams

Q1. Label the Sustainable Development Goals listed below.

(2)

|   |   |   |  |   |   |
|---|---|---|--|---|---|
|    |    |    |    |    |  |
| 1   | 2   | 3   | 4  | 5   | 6   |
|    |    |    |    |    |  |
| 7   | 8   | 9   | 10   | 11  | 12  |
|  |  |  |  |  |   |
| 7   | 8   | 9   | 10   | 11  |   |

Q2. Write the Python program for the following.

(3)

(Open IDLE Python to type the programs mentioned below)

a) To accept the value for the temperature in Celsius and convert it into Fahrenheit.

[ °C x 9/5 + 32 = °F] (Refer to page no. 227)

b) To accept the value for three variables num1, num2 and num3. Find the sum of the three variables and store the calculated value in the variable sum. (Refer to page no. 226)

Q3. Using Adobe Express, create a webpage on the impact of AI on all the 17 Sustainable Development Goals.

(5)

**Subject: Home Science**

**General Instructions :**

- The work should be done neatly and in a systematic way.
- The given assignments are to be done in the respective notebook.

**Q1.** How has urbanization impacted the traditional joint family system in India? (1)

- a) Strengthened the joint family system
- b) Had no significant impact
- c) Led to the decline of joint family structures
- d) Encouraged more joint families to form

**Q2.** What is a key characteristic of a nuclear family? (1)

- a) Extended family living together
- b) Multiple generations in one household
- c) Parents and their children living together
- d) Presence of grandparents and other relatives

**Q3.** Which of the following is a significant factor contributing to the changing family structure in India? (1)

- a) Increased life expectancy
- b) Economic liberalization
- c) Urbanization
- d) All the above

**Q4.** What term is used to describe the shift from rural to urban living? (1)

- a) Urbanization
- b) Industrialization
- c) Modernization
- d) Globalization

**Q5.** In what way can family traditions and rituals contribute to a child's sense of identity? (1)

- a) By limiting the child's exposure to different cultures
- b) By creating a sense of belonging and continuity
- c) By enforcing rigid structures and reducing flexibility
- d) By emphasizing materialistic values

**Q6.** Which of the following best defines holistic development? (1)

- a) Physical growth and development only
- b) Mental and cognitive development only
- c) Comprehensive growth including physical, emotional, social, and intellectual aspects
- d) Development of professional skills only

**Class IX Worksheet 3**

**Q7. Very short answer type questions-**

(5x1= 5)

- I. Which scheme aims at promoting education among girls by providing free textbooks and uniforms?
- II. What is the name of the program that encourages girl child enrolment in secondary education?
- III. Which policy offers financial incentives to families for the birth and education of a girl child?
- IV. Which scholarship works for girl students who were the only child of their parents?
- V. Name one ethic or value which has been followed by Indian families traditionally?

**Q8. Short answer type questions-**

(2x2= 4)

- I. What role does technology play in modern family interactions?
- II. Explain the influence of migration on family?

**Q9.** Design a e-poster to educate parents about the various government initiatives and programs aimed at empowering girls. (5)

**Q10.** Collect and paste pieces of different fibres like cotton, silk, wool, polyester etc. and write their properties. (5)

**Subject: Hindustani Music Vocals**

**Answer the following questions: -**

Q.1) Write any 5 alankaars (5)

Q.2) Define the following (5)

a) Thaata

b) Meend

c) Sthai

d) Antra

e) Vadi Swar

Q.3) Write brief life sketch and contribution to music of Tansen. (5)

**Subject: Painting**

**Instruction: Please do theory questions in your note book and practical in your art file**

Q1. Discuss the significance of light and shadow in painting. (5)

Q2. Create a composition with dry brush strokes (5)

Q3. Draw a landscape and colour with pointillism. (15)