



Dwarka International School

Session 2024-25

CLASS - IX





*Full of joy is early Summer;
Growth and warmth and golden light;
Every day is crowned with beauty,
Full of loveliness the night.
Dazzling sunshine brings the roses,
Fills the whole bright world with bloom;
Day and night rejoice together,
Banished now are doubt and gloom.
-Ellwood Roberts*

Dear Students and Parents,

As we embark on the summer vacation, I want to remind you of the importance of continued learning and growth during this time away from school.

To ensure that our students remain engaged and academically stimulated, we have assigned summer vacation homework for all classes. This homework is designed to reinforce concepts learned throughout the year and to prepare students for the upcoming academic term.

I urge all students to approach their summer homework with diligence and responsibility. Completing these assignments will not only enhance your academic skills but also help you start the new school year on the right foot.

Parents, your support in encouraging your children to complete their summer homework is invaluable. By working together, we can ensure that our students continue to thrive academically.

GUIDELINES FOR STUDENTS

- Ensure timely submission of holiday homework after the reopening of the school.
- Try to incorporate creativity and innovation.
- Revise all the topics that have been taught by your subject teachers in the new session.
- UT 2 syllabus is provided at the end. Kindly revise.
- UT2 will commence from 22nd July 2024

Wishing everyone a productive and enjoyable summer break!

Warm regards.

Subject: English

(Q1) Activity: Poetry

Create a comic strip on A3 size sheet depicting any ONE of the following poems from NCERT Book-Behive.

1. The Road Not Taken 2. Rain on the Roof 3. Wind

Parameters for Assessment: Relevance to content, creativity, originality and presentation.

(Q2) Complete the following passage by choosing the most appropriate options from the ones given below.

Do the following worksheet in your English notebook.

(i) Fashion is a term commonly used to (a) _____ a style of clothing worn by a large number of people in a country. However, popular styles of furniture, homes and many other products (b) _____ also fashions. The kinds of art, music, literature and sports that many people (c) _____ can also be fashions. Thus, a fashion is or reflects a form of behaviour (d) _____ by most people in a society.

- (a) (i) describe (ii) to describe (iii) describing (iv) described
(b) (i) are (ii) have (iii) is (iv) were
(c) (i) preferred (ii) prefers (iii) prefer (iv) will prefer
(d) (i) appreciate (ii) liked (iii) disliked (iv) accepted

(ii) It is a myth that only teenagers (a) _____ a mouthful of braces. Age is irrelevant. When all the permanent teeth are present and the individual (b) _____ relevant structures, corrective orthodontics can work well with almost everyone. It's healthy teeth, gums and supporting bone that (c) _____, which is why a helpless 12-year-old can be refused treatment and a 60-year old (d) _____.

- (a) (i) needs (ii) are needing (iii) have needed (iv) need
(b) (i) had not ruined (ii) has not been ruined
(iii) has not ruined (iv) had not been ruined
(c) (i) counted (ii) are counting (iii) is counting (iv) count
(d) (i) had been benefitted (ii) should be benefitted
(iii) can benefit (iv) has been benefitted

(Q3) The following passage has not been edited. There is one error in each line. Identify the error and write it along with the correction in the answer sheet. The first one has been done for you as an example.

During a summer holidays I accompanied my friend from his village. It was a small place consisting of about 200 houses. The villagers are simple people and very hospitable. The natural scenery or fresh air were very soothing. I stayed here for three days and enjoyed myself in the lap of nature

a (incorrect) / the (correct)
(a)
(b)
(c)
(d)

(Q4) Fill in the blanks with the appropriate form of verbs in in the bracket.

Even though we have (i) _____(enter) the 21st century, more than a billion people (ii) _____(live) in extreme poverty. 40 million people are (iii) _____(infect) with AIDS. 104 million children do not (iv) _____ (has) access to school and 860 million adults cannot read or write.

SUBJECT-French

1. Write a review on a book or novel written by a French writer.

The activity is to be done on A3 size colored sheet. Students may use the decorative materials. Paste the pictures of the book/novel and the writer.

Students are suggested to choose a book review on any one of the following books and novels:

1. Le Petit Prince – By Antoine Saint-Exupéry
2. Les Misérables – By Victor Hugo
3. Madame Bovary – Gustave Flaubert.
4. Étranger (The stranger) – By Albert Camus.

Steps to Follow While Writing a Book Review:

- About the Author
- About the plot
- What was the story about?
- Who were the main characters?
- Did the main characters run into any problems?
- Who was your favorite character? Why?
- Did you like the book?
- What was your favorite part of the book?
- Would you recommend this book to another person?

2. Pourquoi vous choisissez le français pour étudier ? Quels sont les avantages d'étudier une langue étrangère? (70-80 mots)
(To be done in the notebook)

WORK SHEET

NOTE- The following worksheet should be done in the notebook.

Q1. Complétez avec les articles partitifs ou les articles définis :-

1. David mange _____ fruits tous les jours.
2. _____ chocolat est délicieux.
3. Nous prenons _____ eau.
4. Il aime bien _____ glaces.
5. Tu désires _____ fromage ?
6. Elle adore _____ pomme.
7. Elle ne prend pas _____ sucre.
8. Elle préfère _____ lait et _____ coca.
9. Il y a _____ belles fleurs.
10. Il achète _____ baguette et _____ beurre.

Q2. Mettez les phrases suivantes à la forme négative:

1. Il y a un oiseau sur l'arbre.
2. Je bois du lait.
3. Nous mangeons du poulet.
4. Vous avez des fleurs?

5. Tu mange du gâteau?
6. Elle aime le café.
7. Aujourd'hui, il fait beau.
8. Les enfants sont contents.
9. Marie va venir à la fête.
10. Ils ont une belle maison.
11. Nous sommes italiens.
12. JE vais au cinéma.
13. Vous regardez la télé.
14. Elle est journaliste.
15. Le garçon aime les chocolats.
16. Le père aime son fils.
17. Le père du Michel travaille dans un hôtel.
18. J'ai quinze ans.
19. Les filles sont dans la chambre.
20. Je préfère la ville.

SUBJECT-SCIENCE

THEME FOR SCIENCE EXHIBITION

“SCIENCE AND TECHNOLOGY FOR SOCIETY”

Students will develop exhibit/working model on above-mentioned theme for showcasing their idea in the exhibition. Students should keep in mind that their work is innovative, problem solving, original, economic or having improvised modifications in the existing knowledge/technology etc. for the welfare of larger section of society.

CHEMISTRY

1.) Write the following experiments in the chemistry practical file from lab manual.

Experiment no. 1 Page no.9-14 (NATURE OF MATTER)

Experiment no. 2 Page no. 19-20 (NATURE AND BEHAVIOUR)

Experiment no. 3 Page no. 26-27(SEPARATION OF COMPONENTS)

Experiment no. 4 Page no. 32-35 (TYPES OF CHEMICAL REACTION)

Experiment no. 7 Page no. 58-59 (DETERMINATION OF MELTING POINTS AND BOILING POINT OF WATER)

Experiment no. 14 Page no. 102 (CONSERVATION OF MASS)

2) Write the answers of the questions given below in your chemistry notebooks.

- (i) A fluorescent tube glows when electricity is passed through it.
- (ii) Sponge though compressible is a solid. Comment.
- (iii) It is easier to remove fresh stains of ink from a cloth than stains caused a few days ago. Elaborate

- (iv) Why are gases so easily compressible whereas it is impossible to compress a solid or a liquid?
- (v) Cite two examples from your daily life where it can be seen that gases are compressible.
- (vi) Water as ice has a cooling effect, whereas water as steam may cause severe burns. Explain these observations.
- (vii) How does evaporation differ from boiling?
- (viii). Why do we see water droplets on the outer surface of a glass containing ice cold water?
- (ix) Why do wet clothes dry quickly in sun than in shade?
- (x) (a) Express the following temperature in kelvin:
(i) 27°C (ii) 317°C (iii) -173°C
- (b) Express the following temperature in degree Celsius:
(i) 578K (ii) 418K (iii) 765K

BIOLOGY

- **Write the following experiments in the practical file from lab manual.**

Experiment No. 1: Preparation of stained temporary mounts of onion peel.

Experiment No. 2: Preparation of stained temporary mounts of human cheek cells.

Experiment No. 3: Identification of Parenchyma, Collenchyma and Sclerenchyma tissues in plants from prepared slides.

Experiment No. 4: Identification of striped, smooth, and cardiac muscle fibers and nerve cells in animals, from prepared slides.

- **Do all the following questions in Biology notebook**

1. Differentiate plant and animal cell.
2. What is the chemical composition of membrane? Explain two Properties of membrane.
3. How will a cell be affected if placed in Hypotonic, isotonic and hypertonic solution?
4. Draw a well-labelled diagram of Nucleus, Cell membrane,
5. Write the contribution of Robert Hooke, A. V. Leeuwenhoek and Purkinje in the study of cell.

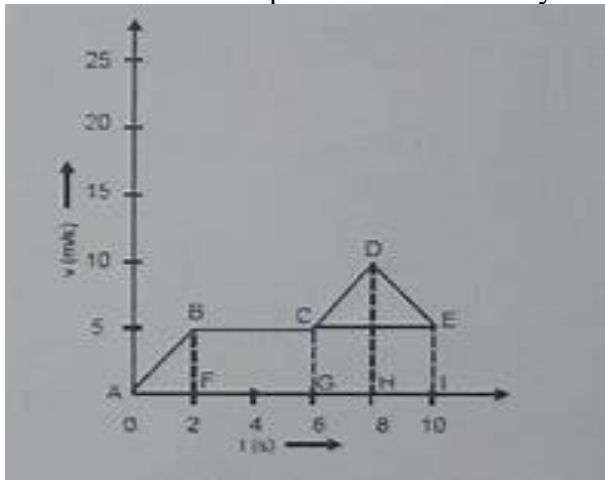
PHYSICS

- I. **Write the following experiments in the practical file from lab manual.**

1. Verification of the laws of reflection of sound.
2. Determination of the density of a solid (denser than water) by using a spring balance and a measuring cylinder.
3. **Establishing the relation between the loss in weight of a solid when fully immersed in**
 - a) Tap water
 - b) Strongly salty water with the weight of water displaced by it by taking at least two different solids
4. Determination of the speed of a pulse propagated through a stretched string.
5. Determination of the speed of a pulse propagated through a stretched slinky (helical spring).

II. Do all the following questions in Physics notebook

1. Find the total displacement of the body from the following graph:



- Vishnu swims in a 90m long pool. He covers 180m in one minute by swimming from one end to the other and back along the same straight path. Find the average speed and average velocity of Vishnu.
- The odometer of a car reads 2000 km at the start of a trip and 2400km at the end of the trip. If the trip took 8 hr, calculate the average speed of the car in km/hr and m/s.
- An electric train is moving with a velocity of 120km/hr. How much distance will it move in 30s?
- A body is moving with a velocity of 15m/s. If the motion is uniform, what will be the velocity after 10s?
- A train travels some distance with a speed of 30km/hr and returns with a speed of 45km/hr. Calculate the average speed of the train.
- A train 100m long moving on a straight level track passes a pole in 5s. Find (a) the speed of the train (b) the time it will take to cross a bridge 500m long.
- In a long-distance race, the athletics were expected to take four rounds of the track such that the line of finish was same as the line of start. Suppose the length of the track was 200m.
 - What is the total distance to be covered by the athletics?
 - What is the displacement of the athletics when they touch the finish line?
 - Is the motion of the athletics uniform or non-uniform?
 - Is the displacement of an athletic and the distance covered by him at the end of the race equal?
- The length of minutes hand of a clock is 5 cm. Calculate its speed.

UT II SYLLABUS

PHYSICS: CH – MOTION

CHEMISTRY: CH – IS MATTER PURE AROUND US

BIOLOGY: CH – THE FUNDAMENTAL UNIT OF LIFE

SUBJECT- MATHS

A STUDY OF TOURISM OF ANDAMAN NICOBAR

Tourism has been one of the main focus areas of development in the Andaman and Nicobar Islands (ANI). It was first promoted to reduce dependence on forest resources such as timber and later due to direct economic benefits such as increased revenue and employment. In recent years too, the NITI Aayog has identified tourism in the ANI as a “key economic driver”. Some of the recent efforts to promote tourism include development of 5-star resorts in select locations, relaxation of certain regulations for foreign tourists, and improved inter-island connectivity to turn the islands into a popular international destination such as Singapore or Maldives.

A) Make Power point representation (PPT) on tourism of Andaman Nicobar according to the following parameters.(FOR ALL STUDENTS)

- i) Brief description of any three famous island for tourism of Andaman and Nicobar
- ii) A graphical analysis (bar graph, double bar graph, line graph, pie chart etc.)
- iii) Description about famous food, water sport, art etc with graphical analysis using bar graph, double bar graph, line graph, pie chart etc.
- iv) PPT should contain pictures, graphs and conclusions report along with the suggestion for improving the tourism in ANI.
- v) **Parameters of Assessment:** Content, accuracy, neatness, creativity and originality

B) Following activities need to be done according to the roll numbers

- i) Make an interesting game or quiz based on probability using deck of cards or two dice(for Roll no 1-10)
- ii) Draw any two Floor design using different geometrical shapes on A3 sheet(For Roll no 11-20)
- iii) Draw any two poster on Warli art on A3 sheet(Roll no- 21-30)
- iv) Draw any two design on A3 sheet using square root spiral(Roll 31- 41)

NOTE: UT-2 Syllabus - CHAPTER: 2, 3 , 4 .

ASSIGNMENT QUESTIONS (TO BE DONE ON A4 RULED SHEET)

Q.1) Express 0.1254545454..... in the form p/q.

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

Q.3). simplify: $\frac{1}{1+\sqrt{2}} + \frac{1}{\sqrt{2}+\sqrt{3}} + \frac{1}{\sqrt{3}+\sqrt{4}}$

Q.4). If $x = \frac{1}{2-\sqrt{3}}$ find the value of $x^3 - 2x^2 - 7x + 5$

Q.5). Find the value x , if $5^{x-3} \times 3^{2x-8} = 225$

6. Find by splitting the middle term of the following questions:

a) $3x^2 + 19x + 30$ b) $\sqrt{2}x^2 + 9x + 5\sqrt{2}$ c) $4x^2 - 13x + 10$

7. Factorize the following by Factor theorem:

a) $x^3 + 9x^2 + 23x + 15$ b) $x^3 + 6x^2 + 11x + 6$

8. Factorize the following by using a suitable identity:

a) $4x^2 + 12xy + 9y^2$ b) $2a^5 - 54a^2$
c) $2\sqrt{2}x^3 + 3\sqrt{3}y^3$ d) $x^5 - x$
e) $x^6 - y^6$ f) $(a - b)^3 + (b - c)^3 + (c - a)^3$

9. Evaluate the following using a suitable identity:

a) 998^3 b) 10.2^3
c) $998^2 - 4$ d) 10.2×9.8

10. If 5 is the zero of $x^3 + kx^2 + 2x + 8$ find k

11. If $(x - 2)$ and $x - 3$ are factors of $x^3 + ax^2 + bx - 30$ find "a" and "b"

12. The polynomials $kx^3 + 3x^2 - 3$ and $2x^3 - 5x + k$ leave the same remainder when divided by $x - 4$ find k .

ASSERTION AND REASON BASED QUESTIONS

- (a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A)
- (b) Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of assertion (A)
- (c) Assertion (A) is true but reason (R) is false.
- (d) Assertion (A) is false but reason (R) is true.

Q.1) **A** : $3 + \sqrt{2}$ is an irrational number.

R: The sum of a rational number and an irrational number is an irrational number.

Q.2) **A**: Every integer is a rational number.

R : Every integer is expressed in the form of $m/1$ so it is a rational number.

Q.3) **A**: Decimal expansion of every rational number is only terminating.

R: Decimal expansion of every irrational number is terminating recurring.

Q.4) **A**: The degree of the polynomial $(x^2 - 2)(x - 3)(x + 4)$ is 3.

R: A polynomial of degree 3 is called a cubic polynomial.

Q.5) A: $(x + 2)$ is a factor of $x^3 + 3x^2 + 5x + 6$. and of $2x + 4$.

R: If $p(x)$ be a polynomial of degree greater than or equal to one, then $(x - a)$ is a factor of $p(x)$, if $p(a) = 0$

CASE STUDY BASED QUESTIONS

Q.1). Mehul and Rajesh are two friends who studied in class IX, their mathematics teacher has given them a Project to prepare a power point presentation on polynomials. They have taken a polynomial

$q(x) = 3x^2 - 2x - 5$, and explained the different concepts related to the polynomial like degree of polynomial, value of the polynomial, concept of zeroes and factorization. After their presentation they have prepared a quiz for the students. Suppose you are the student of their class and you have to attempt the quiz.

Based on the above information, Answer the following questions.

(i) What is the degree of the polynomial Mehul and Rajesh taken

- (a) 0 (b) 1 (c) 2 (d) 3

(ii) What is the coefficient of x in their polynomial.

- (a) 1 (b) -2 (c) 6 (d) None

(iii) Find the value of the polynomial when $x = 1$

- (a) -4 (b) -1 (c) 5 (d) 6

(iv) The zeroes of the polynomial $x + 1$ is

- (a) 1 (b) -1 (c) 2 (d) 4

(v) The value of "a" when -1 of zeroes of polynomial $x^2 + 2x + a$

- (a) -1 (b) -3 (c) 1 (d) -2

विषय - हिंदी

1. निम्नलिखित विषयों पर संवाद लिखिए:-

1. गाँव से कुछ दूरी पर रेलगाड़ी दुर्घटनाग्रस्त हो गई है, दो मित्र वहाँ पीड़ितों की सहायता के लिए जाना चाहते हैं। उनके मध्य हुए संवाद का लेखन कीजिए।
2. मोबाइल फ़ोन से बच्चों की पढ़ाई प्रभावित हो रही है। इस बारे में दो महिलाओं की बातचीत को संवाद रूप में लिखिए।

2. निम्नलिखित विषयों पर पत्र लिखिए :-

1. अपने पिता जी को पत्र लिखकर बताइए कि ग्रीष्मावकाश में आपने क्या-क्या कार्यक्रम बनाया है?
 2. आपका मित्र मोहित अपने राज्य की अंडर 19 क्रिकेट टीम में चुन लिया गया है। इसके लिए बधाई देते हुए उसे पत्र लिखिए।
3. हिंदी भाषा की उपयोगिता विषय पर एक आकर्षक पोस्टर तैयार कीजिए ।
 4. अब तक पढ़ाए गए पाठों को याद कीजिए ।
 5. प्रश्न संख्या 1, 2 अपनी हिंदी की कॉपी में कीजिए ।

इकाई परीक्षा - 2 पाठ्यक्रम

स्पर्श

पाठ - 1 दुःख का अधिकार , पाठ-2 एवरेस्ट : एक शिखर यात्रा , पाठ -7 रहीम के दोहे

संचयन

पाठ - 2 स्मृति

व्याकरण

उपसर्ग-प्रत्यय, समास ,अनुस्वार - अनुनासिक, अर्थ के आधार पर वाक्य - भेद

रचनात्मक लेखन

अनौपचारिक पत्र, चित्र- वर्णन , अपठित गद्यांश

Subject: Social Science

Q-1 Prepare projects on the following topics-

INDIA- RICH IN FLORA AND FAUNA AND CURSE OF BRITISH POLICIES ON IT

GUILDLINES –

- Refer Geography Ch-5 and History Ch-4
- Page limit- 10
- Page layout – A4 size

UNIT TEST-2 SYLLABUS

History- Ch-2 Socialism in Europe and Russian Revolution

Geography -Ch-2 Physical features of India

Civics- Ch-2 Constitutional Design

Economics- Ch-2 People as a resource

Class IX Artificial Intelligence Holiday Homework
Session 2024-25

1.) On A3 sheet – Design a poster on

Roll No. 1-10 : History of AI or Time line of AI

Roll No. 11-20 : Real Life Usage of AI

Roll No. 21-30 : Domains of AI

Roll No. 31-44 : 17 SDG Goals

2.) Write a letter/email to future self

Write one letter or email to your future what you want see in the future or what you want remind to your future. Just imagine about the next 10 years and what you are thinking about your future (relate with AI). The following points can be included in letter/email:

Start with your interests, hobbies, and skills

Now relate how AI can help you

Write about your future job or career you want to pursue and how AI will make an impact on that.

Write a letter on A4 sheet and decorate the sheetQ3.) Complete the given MCQ's in notebook. Take the print out of the below worksheets solve and paste them in school Notebook.

Activity : AI Quiz

1. _____ refers to application of technology, which carries out a task requiring some degree of human-comparable intelligence.
2. Which of the following can be termed as an example of AI ?
 - (a) Calculating bulk of data from a huge database.
 - (b) Recognizing a bird from a picture of tree with the bird.
 - (c) Foiling the attempt of computer virus to harm your computer's data.
 - (d) Searching a song on the Internet based on your audio input where you hummed its tune.
3. Which of the following is not an example of AI ?
 - (a) Determining what will be the population of India 20 years from now, based on past data.
 - (b) Picking of the right tool by a robot from a toolbox based on image sent to it.
 - (c) Identifying a person's face despite having put on lot of deceiving make up.
 - (d) Automatically running Anti-virus software when the computer reboots, as scheduled.
4. _____ is the domain of AI that predicts the possible outcome based on past data available.
 - (a) NLP
 - (b) Data Science
 - (c) Augmented Reality
 - (d) Computer Vision
5. _____ is a domain of AI that depicts the capability of a machine to get and analyse visual information and afterwards predict some decisions about it. (CBSE Sample Paper 2020)
 - (a) NLP
 - (b) Data Science
 - (c) Augmented Reality
 - (d) Computer Vision
6. In _____, input to machines can be photographs, videos and pictures from thermal or infrared sensors, indicators and different sources.
 - (a) Computer Vision
 - (b) Data Acquisition
 - (c) Data Collection
 - (d) Machine Learning (CBSE Sample Paper 2020)

7. This field is enabling computers to identify and process images like humans do :
(a) Face Recognition
(b) Model-view-controller
(c) Computer Vision
(d) Eye-in-Hand System
8. What does NLP stand for in AI ?
(a) Neutral Learning Projection
(b) Neuro-Linguistic Programming
(c) Natural Language Processing
(d) Neural Logic Presentation
9. _____ is the domain of AI that can process the voice input received and produce a natural language based voice output.
(a) NLP
(b) Data Science
(c) Computer Vision
(d) Machine Learning
10. Modern day chatbots and Virtual Assistants like Google Assistant, Siri, Cortana etc. are based on _____ domain of AI.
(a) NLP
(b) Data Science
(c) Computer Vision
(d) Machine Learning
11. DeepFace of Facebook identifies a person despite shown in different disguises. It is based on _____ domain of AI.
(a) NLP
(b) Data Science
(c) Computer Vision
(d) Machine Learning
12. The Rock, Paper, Scissors game is based on _____ domain of AI.
(a) NLP
(b) Data Science
(c) Computer Vision
(d) Machine Learning
13. The Mystery Animal game (played with Google Home) is based on _____ domain of AI.
(a) NLP
(b) Data Science
(c) Computer Vision
(d) Machine Learning
14. The Emoji Scavenger Hunt game is based on _____ domain of AI.
(a) NLP
(b) Data Science
(c) Computer Vision
(d) Machine Learning

1. Which of these are types of human intelligence ?
(a) Ability to use language to express feelings and emotions
(b) Ability to convert to other physical form
(c) Ability to jolt electric shocks

- (d) Ability to identify different objects even with minute differences
 - (e) Ability to walk over water
 - (f) Ability to hibernate during winters
 - (g) Ability to learn from experience
2. Which of the following intelligence types have been implemented through Artificial Intelligence?
- (a) Ability to use language for conversing (*input as well as output*)
 - (b) Ability to recognize objects
 - (c) Ability to learn from experience
 - (d) All of the above
 - (e) None of the above
3. Statement 1. AI is getting integrated into our lives seamlessly.
Statement 2. Often we do not even realize that we are using AI.
- (a) Statement 2 is correct and Statement 1 is incorrect
 - (b) Statement 1 is correct and Statement 2 is incorrect
 - (c) Both Statement 1 and Statement 2 are correct
 - (d) Both Statement 1 and Statement 2 are incorrect
- [CBSE Sample Paper 2021-22, Term I]
4. The branch of AI that works with understanding *language based audio inputs* and producing *language based audio output*, is called _____.
- (a) Audio Input Output Processing
 - (b) Natural Language Processing
 - (c) Audio Language Processing
 - (d) Natural Language Input Output
5. By repeatedly telling a computer about some facts if the computer learns to understand and interpret it – is an example of _____.
- (a) NLP
 - (b) ML
 - (c) Computer Vision
 - (d) All of these
6. Which of the following is not an example of AI based technology/application?
- (a) Lock-camera able to identify the authentic family members and intruders.
 - (b) Refrigerator automatically adding items to grocery list.
 - (c) Automatic temperature control of the room in case people in the room increase or decrease.
 - (d) Automatic gear control of the car when the speed increases.
7. A smart home comprises of these components :
- (a) The Internet
 - (b) Smart Devices
 - (c) IoT
 - (d) All of these
8. A computer scientist namely _____ coined the term 'Artificial Intelligence'.
9. An AI field which uses scientific algorithms and methods on data to extract knowledge so as use it in various applications, is called _____.
- (a) Computer Vision
 - (b) Data Science
 - (c) Machine Learning
 - (d) None of these
10. A robot in a restaurant makes you sit on a table and goes to fetch your order. In the meantime you change the seat but Robot was able to come to your table to find you and identify you. This is an example of _____ technology of AI.
- (a) Computer Vision
 - (b) Data Science
 - (c) Machine Learning
 - (d) None of these

11. An application lets you search what you see, get things done faster and understand the world around you – using just your camera or a photo. Which domain does this app belong to?
 (a) Natural Language Processing
 (b) Data Sciences
 (c) Computer Vision
 (d) Artificial Language Processing
- [CBSE Sample Paper 2021-22, Term I]
12. You called a company's customer care office. An application there responded you, spoke to you, asked broadly about your issue and then transferred your call to appropriate department. This is an example _____ technology of AI.
 (a) Machine Learning
 (b) Big Data
 (c) NLP
 (d) Data Science
13. Virtual Assistants like Siri, Alexa, Cortana are based on _____ technology of AI.
 (a) Machine Learning
 (b) Big Data
 (c) NLP
 (d) Data Science
14. Your health insurance company has asked all its customers to deposit bi-yearly reports of health tests. After some time, it is able to recommend to your doctors by predicting your possible ailment in future. This is an example of _____ technology of AI.
 (a) Data Science
 (b) Computer Vision
 (c) Big Data
 (d) All of these
15. IoT is abbreviated as :
 (a) Institute of Technology
 (b) Internet of Things
 (c) Index organized Table
 (d) Inter-operability Test

[CBSE Sample Paper 2021-22, Term I]

[CBSE Sample Paper 2021-22, Term I]

16. Match column A with Column B

Column A	Column B
(i) Expert System	(a) Simulate how a human would behave as a conversational partner.
(ii) Chatbot	(b) Uses knowledge stored in a knowledge base but requires the intervention of human expert.
(iii) Digital Assistant	(c) Autonomous vehicle
(iv) Self-driving car	(d) Works on various mobile platforms

1. From the statements given below, identify the context of the statements out of these three :

Smart school, smart city, smart home

- (i) Connected cars communicate with parking meters and direct drivers to the nearest available spot.
- (ii) Parents get real-time location of their children's van or bus.
- (iii) Electric vehicles (EV) get charging docks at their parking spots – smart charging (charging while parking).
- (iv) The blinds automatically cover door and windows in the evening time.
- (v) Teachers use the Internet, multimedia and AR/VR based teaching resources.
- (vi) No one can enter the house without speaking the right passcode.
- (vii) Over speeding cars automatically get challans and automatically fine is debited from their linked accounts.
- (viii) Multiple libraries and access points provide online access to courseware catalogues and databases, information and resource management systems.
- (ix) Smart garbage cans automatically send data to waste management companies and schedule pick-up as needed versus on a pre-planned schedule.
- (x) Refrigerators automatically order milk whenever there is very less quantity of milk in the fridge.
- (xi) The temperature automatically increases or decreases as per the weather and as the number of guests at home.
- (xii) High performance computers are connected with networks and databases for managing students' data and facilities for tracking student and teacher performance or resources.

2. Identify challenges to developing smart cities :

- (a) Security and privacy
- (c) Inclusiveness

(b) Infrastructure

(d) All of the above

3. Sensors are a key in fitting out an *Internet of Things* network. What can such a network monitor ?

- (a) Lighting. Street lights will dim or shut off if there is nothing detected within predetermined time
- (b) Vehicular and pedestrian traffic
- (c) Congestion hot spots and offer alternative routing
- (d) Air quality
- (e) All of the above

4. Which of the following is not a feature of a smart school ?

- (a) Automatic ordering of fruits
- (c) Informed parents

(b) Multiple library access points

(d) None of these

5. Which of the following is not a feature of a smart home ?

- (a) Secure mode
- (c) Voice commands

(b) Automatic challans

(d) None of these

SUBJECT – ART AND CRAFT

a) Lippan art on MDF board.

