



Sanskriti KMV SCHOOL

Session-2023-24

Summer Break Assignments

Grade-VIII

“School is off as summers in, Let the boredom stop and the Fun begin”

Dear Parents

Vacation is a welcome break! It is a golden period for family reunion and utilizing it in the most fruitful manner. So staying inside, beating the scorching heat of summers and to avoid being monotonous few fulfilled activity based tasks have been designed for the students so that they can spend their relaxation time in the most constructive way. But before advancing towards it, few points need to be taken into consideration:

- Summer Break: - 28th, May, 2023 to 2nd, July 2023. School will reopen on 3rd, July 2023.
- Students should complete their Holidays Homework and submit it positively post vacation. It should be handed over to the Grade-Incharge in a single clear folder labelled properly with student’s name, father’s name, class and section.
- Prioritize their physical fitness. Follow regular Fitness Regime and maintain a balanced diet.
- Encourage your child to adopt any one bird during the vacation. Take proper care by feeding it at regular intervals.
- Involve children in household chores.
- Spend quality time with the grandparents and reduce the screen time.
- Keep a record of places visited, special days enjoyed, with the photograph in a scrap book.

Looking forward for a delightful fun filled time ahead!

HAPPY HOLIDAYS!

ENGLISH

1. Write an email to your teacher describing how you spent your summer vacations. Follow the format given below:

Email id-Ms Avneet skmvenglish2@gmail.com

-Ms.Jasmeet bhalla.jasmeet@gmail.com

- Ms.Sarika middle.schoolcoordinator1@gmail.com

EMAIL ABOUT YOUR TRIP

Date: May21,2023

From:rishi@hotmail.com

Subject: About my trip

To: ravi@gmail.com

My dear Ravi

Hi! How are you? Hope you will find this email in the pink of your health. I am very excited to write to you about the long tour I will be going on along with my parents. We will be leaving on the May 25th,2023. We will be away for three months. We are going to San Francisco for an official meeting my father has to attend. We would then be travelling to New York to visit our cousins. We would stay there for a month. After that, we will be going to Paris. It has always been my dream to visit Paris at least once in my lifetime, and my parents have finally agreed to take me there. I will definitely write to you all about my trip – all the different places we visit, the variety of food we eat and the people we meet. It would have been even more special if you had come along with me. We will make sure we plan out a trip once I am back home.

With best wishes,

Rishi

Note-Take a print out of the same and paste in your Holidays Homework folder.

2. Sakhī kandhei is a string puppetry show popular in the Indian state of Odisha. They are made of light wood, with no legs but wear long flowing skirts. To understand more about the culture let's make one puppet and learn how it works. For your reference the YouTube link of its making is attached underneath.



Go to the Link: <https://www.youtube.com/watch?v=fKL4XRBGqoo>

3. Prepare a chart on Tenses on A3 sheet.

HINDI

- * हिंदी समाचार पत्रों में से लाभकारी विज्ञापनों को काटकर उनका कोलाज चार्ट पर बनाएँ।
- * पाठ्यपुस्तक 'दिव्य भारती' के पाठ 5 तथा 7 को पढ़ें तथा उत्तर पुस्तिका में उनका सार लिखें।
- * पंजाब तथा उड़ीसा के किन्हीं चार-चार प्रमुख पर्यटन स्थलों के चित्र स्क्रेपबुक में लगाकर उनके बारे में जानकारी लिखें।
- * कक्षा में करवाए गए कार्य की दोहराई करें।

MATHS

General Instructions:

- (i) Submit your work in file/ folder with a cover page
- (ii) Do your work neatly and creatively
- (iii) Use loose sheets to do practice questions and project work

Project : AIL ACTIVITY

Make a project file on the topic 'To compare the maximum and minimum temperature of Punjab and Orissa using double bar graph for the month January to December 2022'

Lab manual: Do Activity number 10(a), 10(b), 10(c)

Practice Questions

1. Verify the following

$$(i) \quad \frac{2}{3} \times \left(\frac{3}{4} \times \frac{5}{7}\right) = \left(\frac{2}{3} \times \frac{3}{4}\right) \times \frac{5}{7}$$

$$(ii) \quad \frac{5}{3} \times \left(\frac{-5}{8} + \frac{1}{3}\right) = \frac{5}{3} \times \left(\frac{-5}{8}\right) + \frac{5}{3} \times \frac{1}{3}$$

2. Write 6 rational numbers between $\frac{-5}{2}$ and $\frac{-3}{5}$

3. By what number should $\frac{-2}{19}$ be divided to get $\frac{-3}{2}$

4. The cost of $3\frac{1}{2}$ kg of rice is Rs. $82\frac{1}{4}$. Find the cost of $11\frac{1}{4}$ kg of rice.

5. Simplify $\left(\frac{11}{12} \times \frac{12}{121}\right) - \left(\frac{-6}{5} \times \frac{70}{60}\right)$

6. Represent the following on number line

$$(i) \quad \frac{-7}{3} \quad (ii) \quad \frac{12}{5}$$

7. Find the value of $\left(\frac{3}{2}\right)^5 \div \left(\frac{3}{2}\right)^2$

8. Convert in exponential form (i) $-\frac{512}{625}$ (ii) $\frac{64}{729}$ (iii) $\frac{-343}{512}$

9. The product of two rational numbers is $\frac{4}{26}$ if one of them is $-\frac{2}{13}$, find the other

10. A bus at a uniform speed covers a distance of $110\frac{2}{3}$ km in $2\frac{1}{3}$ hours. Find the speed of the bus and the distance covered in $4\frac{1}{2}$ hours

11. Simplify: $\left\{\left(\frac{15}{16}\right)^{13}\right\}^{-3} \div \left\{\left(\frac{15}{16}\right)^{-15} \times \left(\frac{15}{16}\right)^{-5}\right\}$

12. (i) Simplify $\left(\frac{-22}{49}\right)^3 \div \left(\frac{12}{343}\right)^3$

(ii) Which is greater? $-\frac{4}{9}$ or $-\frac{3}{7}$

13. Express as rational number

(i) $(\frac{2}{3})^{-7} \div [(\frac{2}{3})^{-6} \times (\frac{2}{3})^{-4}]$

(ii) $[(-4)^{-7} \times (\frac{1}{4})^{-7}] \times [(\frac{3}{4})^{-3} \div \{(\frac{3}{4})^{-2}\}^{-3}]$

14. Evaluate

(i) $[(\frac{4}{3})^{-1} + (\frac{3}{4})^2]^{-1}$

(ii) $\{(\frac{1}{2})^{-3} - (\frac{1}{3})^{-3}\} \div (\frac{1}{4})^{-3}$

15. Find the value of x for which $6^{2x+1} \div 36 = 216$

16. If $\frac{x}{y} = (\frac{4}{7})^{-1} \times (\frac{14}{20})^{-2}$ find $(\frac{x}{y})^{-2}$

17. Find the value of m if $5^{m-3} \times 3^{2m-8} = 225$

18. By what number should $(3)^{-2}$ be divided to get $(9)^{-3}$

19. Write the number in standard form

(i) 0.0000000564

(ii) 678.5×10^5

20. Divide the sum of $\frac{1}{2}$ and $\frac{1}{5}$ by their difference

21. How many numbers lie between the squares of

(i) 100 and 101

(ii) 47 and 48

22. Find the squares of

(i) 6.25

(ii) $\frac{-16}{17}$

23. Find the other two members of the pythagorean triplet ,one of whose member is 26

24. Without adding , find the sum

(i) $1+3+5+7+9+11+13+15+17+19+21+23+25+27$

(ii) $!+3+5+7+9+11+13+15+17$

25. Using the properties of squares find the value of

(i) $2115^2 - 2114^2$

(ii) $100^2 - 99^2$

26. After reading $\frac{7}{12}$ of a book, 30 pages are left unread How many pages are there in the book.

27. Simplify $\frac{9 \times p^{-4}}{3^{-3} \times 6 \times p^{-8}}$

28. Which is greater 0.0000463 or 0.00463? solve by writing them in standard form

SCIENCE

General Instructions:

Submit your work in a file/folder with a cover page. Use the perforated sheets or ruled sheets.

Present your work neatly and as creatively as possible.

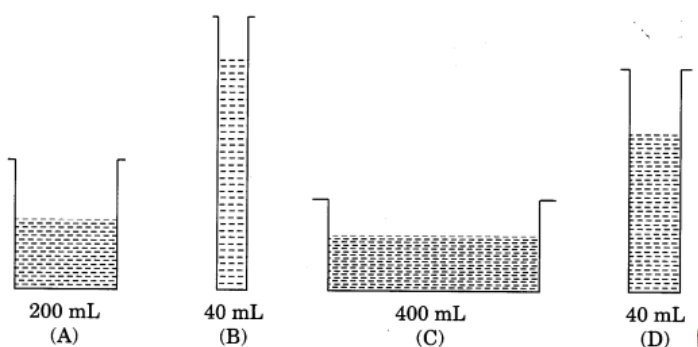
The work should be hand written.

Answer the following questions:

1. Give reason for the following:
 - a) Camel can walk easily on sand.
 - b) Cutting edge of a knife made sharp.
2. The tip of drawing pen has an area of $1 \times 10^{-2} \text{ m}^2$. Find the pressure exerted if force applied is 10 N.
3. Calculate the force if pressure of 10 Pa acts on an area of 10 m^2 .
4. Give two examples of situation in which applied force causes a change in the shape of an object.
5. At least how many objects are needed to apply a force.
6. In the given situation identify the agent exerting the force and the object on which it acts. State the effect of force in case of squeezing a piece of lemon between the fingers to extract its juice.
7. Name the force acting on plastic bucket containing water held above ground level in your hand. Discuss why the forces acting on the bucket do not bring a change in its state of motion.
8. Find the net force acting on the given figure:



9. Observe the figures given below carefully.



Volume of water in each vessel is shown above. Arrange them in order of decreasing pressure at the base of each vessel. Explain the reason.

10. Why does the balloon get inflated?

Write down following Experiments in your Science lab Manual:

Page No.- 23, 29 to 30.

ALL-Make a file on Comparison between Famous Crops of Odisha and Punjab based on the following properties:

a) Types of Soil

b) Weather Condition

SOCIAL SCIENCE

Project -1 You must get to know about the state that is quite different from your own state. Odisha has been paired with Punjab for this initiative. It's a good opportunity for all of you to explore the fascinating state by showing the comparative study of the vegetation and wildlife in Odisha and Punjab. Show the features and types of the bird sanctuary.

Explore it from internet, magazines, newspapers etc and prepare a project file.

2. Read the data carefully and answer the following questions:

1. Study the given data carefully and answer the questions that follow :

| Countries | Percentage of area | | | Other Uses |
|-----------|--------------------|---------|--------|------------|
| | Croplands | Pasture | Forest | |
| Australia | 6 | 56 | 14 | 24 |
| Brazil | 9 | 20 | 66 | 5 |
| Canada | 5 | 34 | 14 | 52 |
| China | 10 | 34 | 14 | 42 |
| France | 35 | 21 | 27 | 17 |
| India | 57 | 4 | 22 | 17 |
| Japan | 12 | 2 | 67 | 19 |
| Russia | 8 | 5 | 44 | 44 |
| U.K. | 29 | 46 | 10 | 16 |
| U.S.A. | 21 | 26 | 32 | 21 |
| World | 11 | 26 | 31 | 32 |

Land use pattern in selected countries

(i) Which country has highest area under forest ?

Ans.

(ii) Which country has highest area under crop land ?

Ans.

(iii) Which country has highest area under pasture ?

Ans.

(iv) Name two countries which have low area under forest than the world average ?

Ans.

(v) How much area is under forests in the world ?

Ans.

(vi) How much area is under pastures in India ?

Ans.

3. Answer the following questions:

VALUE BASED QUESTIONS

Q.1 Write a slogan to save wildlife and natural vegetation.
Ans.

Q.2 Suggest any two ways to save energy.
Ans.


Q.3 Carefully study the given cartoon and answer the following questions.

(i) Give appropriate title to the given cartoon.
Ans.

(iv) What is being depicted in the cartoon?
Ans.

(iii) What led the Cartoonist to draw this cartoon?
Ans.

(iv) Suggest any two ways to save the earth.
Ans.



4. Map work

Do page numbers 7,8,9,13,15,16,17 on Map Skill.

PUNJABI

1. ਹੇਠਾਂ ਲਿਖੇ ਅਨੁਸਾਰ ਉੱਤਰ ਲਿਖੋ (ਕੰਬਦੀ ਕਲਾਈ , ਸਿਪਾਹੀ ਦਾ ਦਿਲ , ਅੱਖਰ ਬੋਧ)

- (i) ਸ਼ਬਦ ਅਰਥ:- ਚਿਤਾਰਸਾਂ , ਭੀੜ ਬਨਣੀ (2M)
- (ii) ਵਾਕ ਬਣਾਓ:- ਅੱਖਾਂ ਸਜਾਉਣਾ (1M)
- (iii) ਖਾਲੀ ਥਾਵਾਂ ਭਰੋ:- (3M)

(ੳ) ਸ ਤੋਂ ਲ ਤੱਕ ਸਾਰੇ ਅੱਖਰ _____ ਹਨ ।

(ਅ) ' ਸਿਪਾਹੀ ਦਾ ਦਿਲ ' ਕਵਿਤਾ ਦੇ ਕਵੀ ਦਾ ਨਾਮ _____ ਹੈ।

(ੲ) ' ਨਿਰਾ ਨੂਰ ' ਸ਼ਬਦ ਦਾ ਅਰਥ _____ ਹੈ।

- (iv) ਪ੍ਰਸ਼ਨ/ਉੱਤਰ:- (ਇੱਕ ਸ਼ਬਦ ਜਾਂ ਇੱਕ ਵਾਕ) (4M)

(ੳ) ਦੁੱਤ ਅੱਖਰ ਕਿਸਨੂੰ ਆਖਦੇ ਹਨ ?

(ਅ) ਲਗਾਖਰ ਕਿੰਨੇ ਅਤੇ ਕਿਹੜੇ ਕਿਹੜੇ ਹਨ ?

(ੲ) ਭਾਈ ਵੀਰ ਸਿੰਘ ਕੌਣ ਸਨ ?

(ਸ) ਕਵੀ ਆਪਣੀ 'ਪੇਸ਼ ਨਾ ਜਾਣ ਦਾ ' ਕੀ ਕਾਰਨ ਦੱਸਦਾ ਹੈ ?

2. ' ਮੈਰੀ ਕਾਮ ' ਪਾਠ ਪੜ੍ਹ ਕੇ ਅਭਿਆਸ (Back ex.) ਤੋਂ ਬਿਨਾਂ ਪੰਜ ਪ੍ਰਸ਼ਨ ਆਪ ਬਣਾ ਕੇ ਉਹਨਾਂ ਦੇ ਉੱਤਰ (1M) ਲਿਖੋ।
(5M)

3. ਦ੍ਰਿਸ਼ ਵਰਨਣ (5M)

ਉੜੀਸਾ



ਪੰਜਾਬ

ਨੋਟ:- (i) ਸਾਰਾ ਕੰਮ ਵੱਖਰੇ ਪੇਪਰਾਂ ਉੱਤੇ ਕਰਕੇ ਫਾਈਲ ਵਿੱਚ ਰੱਖੋ ।

(ii) ਜਮਾਤ ਵਿੱਚ ਕੀਤੇ ਗਏ ਕੰਮ ਦੀ ਦੁਹਰਾਈ ਕਰੋ ।

COMPUTER

Robotics and Artificial Intelligence

What is a Robot?

A Robot is a machine programmable by a computer – capable of carrying out a complex series of actions automatically.

Robotics- It is the branch of science and engineering that deals with the design, construction, operation, and application of robots as well as computer systems for their control and information processing. Robots can be used in many situations and for lots of purposes, but today many are used in dangerous environments

(including bomb detection and deactivation), manufacturing processes, or where humans cannot survive (e.g. in space, under water, in high heat, and clean up and control of hazardous materials and radiation.)



and precision.

2. Service Robots: These robots assist human beings, typically by performing a job that is dirty, dull, distant, dangerous or repetitive, including household chore like cleaning by using vacuum cleaners. Other applications are self driving cars, drones and surgeries.



Types of Robots based on Application

1. Industrial Robots: These robots are often designed to perform dangerous as well as repetitive tasks that cannot be done by humans. An industrial robot is used for manufacturing and similar processes. These are most often fixed machines which are essentially mechanical arms. Jobs like welding, painting, packaging and labelling, product inspection and testing; all accomplished with high endurance, speed



Remember- In aviation and in space, a drone refers to an unpowered aircraft or spacecraft, drones are often used for military purposes because they don't put a pilot's life at risk in combat zones.

3. Agriculture Robots: As the demand increases, agriculture robots will become more incorporated into every aspect of agricultural activity. Using advanced sensors, these service robots will spray for weed control, harvest crop, plant seeds and trim existing plants and trees.



4. Domestic or household

Robots: These are robots used at home. These types of robots include many different devices such as robotic vacuum cleaners, robotic pool cleaners, sweepers, gutter cleaners and other.



Now, answer the following questions based on the above notes and explanation:-

Q.1. Select the correct option:-

1. It is the branch of science and engineering that deals with the design, constructions, operations and application of robots.
 - a) Information Technology
 - b) Robotics
 - c) Computer Science
2. These types of robots are often designed to perform dangerous as well as repetitive tasks in industries that cannot be done by humans.
 - a) Industrial Robots
 - b) Service Robots
 - c) Agricultural Robots
 - d) Military Robots

Q.2. Fill in the blanks:-

1. _____ is a machine programmable by computer.
2. _____ is the branch of science and engineering that deals with the design, construction, operation and application of robots.
3. An _____ robot is a robot system used for manufacturing and similar processes.
4. _____ assist human beings typically by performing a job that is dirty, dull, distant, dangerous or repetitive.

Q.3. Answer the following questions-

1. What is robotics?
2. What do you call robots used at homes?
3. What kind of robots performs the job that is dirty, dull, dangerous or repetitive?
4. What is a drone?
5. Write about Industrial and Agriculture Robots.

Homework- Read the notes given in the worksheet and do the questions neatly in your notebook.

Let us continue with the different types of robots.

5. Entertainment Robots: - As the name suggests, these are used for entertainment. This category starts with toy robots such as robosapien or the running alarm clock and ends with robot arms used as motion simulators. A motion simulator is a mechanism that creates the feeling of being in a real motion environment.



6. Military Robots: - This type of robots includes bomb disposal robots, different transportation robots, exploration drones etc. Often robots initially created for military purpose can be used in law enforcement, search and rescue and other related fields.

Artificial Intelligence

Artificial Intelligence (AI) is a way of making a computer, a computer controlled robot, or software think intelligently in the similar manner the humans think. Chess playing computers are one example where computer learns and improve games learning from previous games. Some of the activities computers with artificial intelligence are designed for include: Speech recognition, Learning, Planning and Problem solving.



Remember: - McCarthy was one of the founders of the discipline of artificial intelligence. He invented the term "Artificial Intelligence" (AI).

AI includes tools and techniques like Artificial Neural networks, machine Learning, Natural Language Processing and Deep Learning to work like the human mind.

Applications of AI

There are multiple applications of AI

1. In class rooms: - One of the most exciting innovations is the idea of a personal AI tutor or assistant for each individual student. When students sit at their desk, their devices will be able to create lessons, problems and games to tailor to the specific student's needs, particularly where a student may be struggling and give immediate feedback.

2. Hospital and Medicine: - AI helps in computer aided interpretation of medical images. Such systems help scan digital imaged, e.g. from computed tomography (CT scan), for typical appearances and to highlight obvious sections, such as possible diseases. A possible application is the detection of a tumour.

3. Expert Systems: - An expert system is computer software that attempts to mimic the decision-making expertise of an expert in a given field.

4. Speech recognition: - These intelligent systems are capable of hearing and understanding the language in terms of sentences and their meanings while a human talks to it. It can handle different accents, slang words, noise in the background, change in human's noise due to cold etc.

5. Intelligent Robots: - These robots are able to perform the tasks given by a human. They have sensors to detect physical data from the real world such as light, heat, temperature, movement, sound, bump and pressure. They are capable of learning from their previous mistakes and they can adapt to the new environment.

6. Entertainment:- A familiar application of AI in everyday life is seen with services like Netflix or Amazon, wherein an algorithm analyze the user's activity and compare it with that of other users to determine which shows or products to recommend.

7. Smart Virtual Assistants:- A virtual assistant is an application that can understand voice commands and complete tasks for a user. Virtual assistants are available on most smart phones and tablets, traditional computers and now even standalone devices like the Amazon Echo and Google Home.

Apple's Siri, Google Assistant, Amazon's Alexa and Microsoft's Cortana accept voice command to do many things are example of Smart Virtual Assistant.

They combine specialized computer chips, microphones and software that listens for specific spoken commands from you and usually answers back with a voice that you select.



Now, answer the following questions based on the above notes and explanation:-

Q.1. Select the correct option:-

1. These types of intelligent systems are capable of hearing and understanding the language in terms of sentences and their meanings while a human talks to it.

- a) Command Recognition
- b) Biometric
- c) Speech Recognition

2. These systems provide explanation and advice to the users.

- a) Common System
- b) Clever System
- c) Expert System

3. This is an application that can understand voice commands and complete tasks for a user.
 - a) Virtual Assistant
 - b) Personal assistant
 - c) Expert System
4. _____ invented the term Artificial Intelligence (AI).
 - a) Blaise Pascal
 - b) Charles Babbage
 - c) McCarthy

Q.2. Write True or False

1. Domestic robots are used at home.
2. Dumb robots are capable of learning from their mistakes and they can adapt to the new environment.
3. Artificial Intelligence cannot be used in schools.
4. AI helps in computer aided interpretation of medical images.
5. An expert system is a computer software that attempts to mimic the decision making expertise of an expert in a given field.
6. A virtual assistant is an application that can understand voice commands and complete tasks for a user.

Q.3. Fill in the blanks:-

1. _____ Robots includes bomb disposal robots, different transportation robots, exploration drones etc.
2. _____ is a way of making a computer, a computer-controlled robot, or a software think intelligently, in the similar manner the intelligent humans think.

Q4: Orissa has been actively working towards the development of smart cities, integrating technology and infrastructure to improve the quality of life for its residents. Search and make a list of smart cities in Orissa Which are selected to become smart cities with their features.

General Knowledge

General Instructions:

- Submit your work in a file/folder with a cover page. Use the perforated sheets or ruled sheets.
- Present your work neatly and as creatively as possible.
- The work should be hand written.

Q1. Gather some information about some famous museums of Punjab and Odisha (three each) , write it and paste pictures.

Q2. Find the value of the triangle in the given figure:-

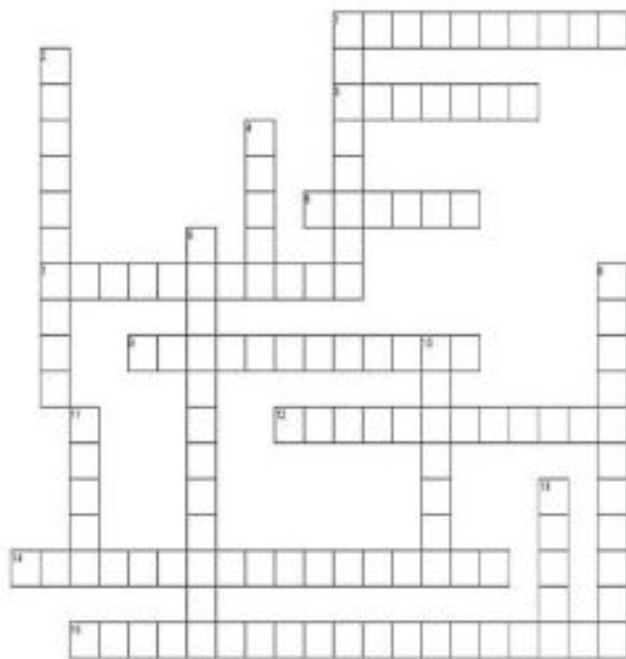
$$\text{Green Circle} + \text{Green Circle} = 10$$

$$\text{Green Circle} \times \text{Yellow Square} + \text{Yellow Square} = 12$$

$$\text{Green Circle} \times \text{Yellow Square} - \text{Red Triangle} \times \text{Green Circle} = \text{Green Circle}$$

$$\text{Red Triangle} = ?$$

Q3. Solve the crossword puzzles

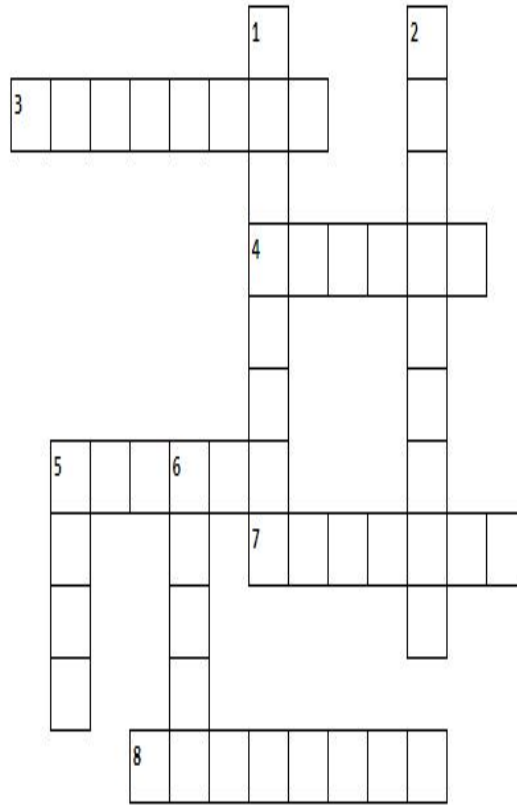


ACROSS

- 1 First Satellite launched by India
- 3 The place from where the Prime Minister of India addresses the Nation on Indian Independence day
- 5 National sport of India
- 7 Southernmost point of India
- 9 The first Indian woman to climb Mount Everest
- 12 National Anthem of India
- 14 India's first Grandmaster
- 15 Oldest Stock Exchange in Asia

DOWN

- 1 This historical monument was built by Akbar and improved by Shahjahan
- 2 World's tallest brick Minaret
- 4 National fruit of India
- 6 Highest Mountain peak in India
- 8 Currency of India
- 10 India's first talkie film
- 11 _____ temple is the Mother Temple of the Indian sub continent
- 13 Number of Union Territories in India



Across

- 3. An ancient language of India
- 4. A major Hindu festival known as the "Festival of Lights,"
- 5. Aromatic and flavorful plant products used to flavor food
- 7. A heavy rainfall in Southeast Asia during the summer months.
- 8. A system of traditional medicine that balances the body using natural remedies

Down

- 1. A major religious and cultural tradition that believe in reincarnation and karma
- 2. The Hindi-language film industry based in Mumbai
- 5. A traditional garment worn by women in India
- 6. A dish typically made with a variety of spices, herbs, and vegetables or meats