প্রশ্নঃ-
বিরাম চিহ্ন

ক) কে মুখের ধারে উঠে কে মুখের ধারে উঠে?

খ) জৈকে আম আম কাঠিন লাগে।

ঘ) জৈকে আম আম, জাগ, কাঠিন লাগে।

ঝ) কি কি আজ থাকে থাকে?

ঞ) আঃ সে কি মুখে।

ট) আঃ আঃ সে কি মুখে?

ঠ) মুখ পুকুর ফেরত ও ব্যুঝানে নাছ।

ড) মুখ পুকুর ফেরত ও ব্যুঝানে নাছ।

ঢ) হলুদ পাখি কোথা যায়?

ণ) হলুদ পাখি কোথা যায়?

ত) তাহে রাম সৌর্দিকে একবার আমের

বিরেকারান্ত গলাতে ছীবে পোষ করে যেই
জন সেই তুমি প্রিয়ে কানুর উঃ- বিরেকারান্ত
গলায় ছিলেন তোমারে পেয়ে যেই তোমার পাইছিলেন
সৌর্দিকে নিয়ে)।

থ) হাম হাম হাম হাম হাম করনাম

ং) হাম হাম হাম হাম হাম হাম হাম হাম করনাম।

ব) পাখী(দের) আমলি কাঠিন সাথে আকাশ
পরিবার থাকে উঃ- পাখী(দের) আমলি
-কাঠিন সাথে আকাশ পরিবার থাকে।
Questions and Answers :-

Q1) WRITE THE MAJOR DRAWBACKS OF FIRST GENERATION COMPUTERS.

Ans). The drawbacks of first generation computers are :-

i) These were very big in size, weight was about 30 tones.
ii) These computers were based on vacuum tubes.
iii) These computers were very costly.
iv) It could store only a small amount of information due to the presence of magnetic drums.
v) As the invention of first generation computers involves vacuum tubes, so another disadvantage of these computers was, vacuum tubes require a large cooling system.
vi) Very less work efficiency.
vii) Limited programming capabilities and punch cards were used to take inputs.
viii) Large amount of energy consumption.
ix) Not reliable and constant maintenance is required.

Q2) DEFINE FOURTH GENERATION COMPUTERS WITH EXAMPLE.

Ans). 1971-1980 is the period of fourth generation computer. This technology is based on Microprocessor. A microprocessor is used in a computer for any logical and arithmetic function to be performed in any program. Graphics User Interface (GUI) technology was exploited to offer more comfort to users. Few Examples are: IBM 4341, DEC 10, STAR 1000, PUP 11 etc.

Q3) WHAT IS INTEGRATED CIRCUITS (ICS) ?

Ans). An integrated circuit or monolithic integrated circuit (also referred to as an IC, a chip, or a microchip) is a set of electronic circuits on one small flat piece (or "chip") of semiconductor material that is normally silicon.

Q4) STATE ALL THE ADVANTAGES OF THIRD GENERATION COMPUTERS.

Ans). The advantages of third generation computers are :-

i) These computers were cheaper as compared to second-generation computers.
ii) They were fast and reliable.
iii) Use of IC in the computer provides the small size of the computer.
iv) IC not only reduce the size of the computer but it also improves the performance of the computer as compared to previous computers.
v) This generation of computers has big storage capacity.
vi) Instead of punch cards, mouse and keyboard are used for input.
vii) They used an operating system for better resource management and used the concept of time-sharing and multiple programming.
viii) These computers reduce the computational time from microseconds to nanoseconds.
Q5) WRITE A SHORT NOTE ON:

I) UNIVAC
Ans. The UNIVAC I (UNIVersal Automatic Computer I) was the first general purpose electronic digital computer design for business application produced in the United States. It was designed principally by J. Presper Eckert and John Mauchly, the inventors of the ENIAC.

II) SECOND GENERATION COMPUTERS.
Ans. 1959-1965 is the period of second-generation computer. Second generation computers were based on Transistor instead of vacuum tubes.

Q6) WHAT IS ROBOTICS?
Ans. Robotics is an interdisciplinary branch of engineering and research area for information engineering, computer engineering, computer science, mechanical engineering, electronic engineering and others. Robotics involves design, construction, operation, and use of robots.

Q7) EXPLAIN IN DETAILS ABOUT FIFTH GENERATION COMPUTERS.
Ans. The period of the fifth generation in 1980 onwards. This generation is based on artificial intelligence. The aim of the fifth generation is to make a device which could respond to natural language input and are capable of learning and self-organization. This generation is based on ULSI(Ultra Large Scale Integration) technology resulting in the production of microprocessor chips having ten million electronic component.

Few Examples are:
Desktop
Laptop
NoteBook
UltraBook
Chromebook

Q8) WHO INVENTED INTEGRATED CIRCUITS AND WHEN?
Ans. IC invented by Robert Noyce and Jack Kilby in 1958-1959. IC was a single component containing number of transistors.
Q9) STATE ALL THE DISADVANTAGES OF:
   I) FOURTH GENERATION COMPUTERS.
      Ans). The disadvantages of fourth generation computers are:
         1) The Microprocessor design and fabrication are very complex.
         2) Air conditioning is required in many cases due to the presence of ICs.
         3) Advance technology is required to make the ICs.

   II) THIRD GENERATION COMPUTERS.
      Ans). The Disadvantage of third generation computers are:
         1. IC chips are difficult to maintain.
         2. The highly sophisticated technology required for the manufacturing of IC chips.
         3. Air conditioning is required.

Q10) GIVE EXAMPLE FOR EACH:
   I) FIFTH GENERATION COMPUTERS.
      Ans). Examples are: IBM 4341, DEC 10, PUP 11

   II) SECOND GENERATION COMPUTERS.
      Ans). Examples are: Honeywell 400, IBM 7094, CDC 1604, CDC 3600, UNIVAC 1108

   III) FIRST GENERATION COMPUTERS.
      Ans). Examples are: ENIAC, EDVAC, UNIVAC, IBM-701, IBM-650
A.N.M.S. Class-V Science
Solids, liquids and gases

WORKSHEET (with answers)

Answer the following:

1. What is matter?
   ANS: Matter is anything which occupies space and has weight.

2. State the properties of solid, liquid and gases.
   ANS:

   **PROPERTIES OF SOLIDS**
   
   * Solids have a definite shape and fixed volume.
   * The intermolecular space is very less.
   * The intermolecular force of attraction is maximum.
   * They are rigid i.e. their shape cannot be changed.
   * Solids cannot be compressed.
   * The kinetic energy of the molecules is minimum.
PROPERTIES OF LIQUIDS

*Liquids do not have a definite shape but have a fixed volume.

*They take the shape of the container.

*They are fluid and flow from higher level to lower level.

*The intermolecular space is more than that of solids.

*The intermolecular force of attraction is less than that of solids.

*The kinetic energy of its particles is more than solids.

PROPERTIES OF GASES

*Gases neither have any definite shape nor any fixed volume.

*They can be compressed.

*They can flow in all directions.

*The intermolecular space is maximum.

*The intermolecular force of attraction is least.

*The kinetic energy of the particles is maximum.

3. Distinguish between the three states of matter.
4. Define the following terms:
   a) Vaporisation : The process in which liquid gets converted into gas on heating is called vaporization (vaporization).
   b) Condensation : The process in which gas gets converted into liquid on cooling is called condensation.
   c) Fusion : The process in which solid changes into liquid on application of heat is called fusion or melting.
   d) Solidification : The process in which liquid gets converted into solid on cooling is called solidification.
   e) Sublimation : The process in which specific solids directly change to gaseous state on application of heat is called sublimation.

5. Draw the molecular arrangement of solid, liquid and gas.
EX: I

Identify the kinds of following sentences:

1. Leave the room right now.
   A: IMPERATIVE SENTENCE.

2. I love to play cricket.
   A: ASSERTIVE SENTENCE.
3. What a pleasant surprise!

A : EXCLAMATORY SENTENCE.

4. How many cousin do you have?

A : INTERROGATIVE SENTENCE.

EX ☢ II

Put the correct punctuation mark in the given brackets :

1. Who is standing there [?] 

2. Please wait for me [. ]

3. How lovely the nature is [! ]

4. I am not ready for the competition [.]
Transform the following sentences according to the instructions given in the bracket:

1. He is going to school. (Interrogative)
   
   A : Is he going to school?

2. Amit is always punctual. (Negative)
   
   A : Amit is never late.

3. Do they love us? (Assertive)
   
   A : They love us.

4. Rajat is not dishonest. (Affirmative)
A: Rajat is honest.

5. Aman plays football. (Interrogative)

A: Does Aman play football?
A.N.M.S. Class-V Mathematics

Revision of Factors & Multiples and H.C.F. & L.C.M.

Worksheet (with answers)

1. a) Find the factors of 15, 45, 60 and 90.
   b) Find the common factors of 15, 45, 60 and 90.
   c) Find their H.C.F.

2. Find the H.C.F. by prime factorization method:
   a) 50, 70, 110
   b) 60, 144, 288
   c) 48, 96, 192
   d) 40, 80, 100

3. Find the H.C.F. by division method:
   a) 30, 60, 120
   b) 105, 180, 220.
   c) 65, 78, 117
   d) 35, 49, 77, 91

4. Find the L.C.M. of the given numbers:
   a) 10, 20, 30, 40
   b) 25, 35, 45, 55
   c) 50, 75, 150
   d) 20, 40, 60, 80.
ANSWERS

1.a) The factors of 15 are 1,3,5,15.
The factors of 45 are 1,3,5,9,15,45.
The factors of 60 are 1,2,3,4,5,6,10,12,15,20,30,60.
The factors of 90 are 1,2,3,5,6,9,10,15,18,30,45,90.
1.b) The common factors are 1,3,5,15.
1.c) H.C.F. = 15.

2.a) 10    b) 12    c) 48    d) 20

3.a) 30    b) 5     c) 13    d) 7

4.a) 120   b) 17325
      c) 150   d) 240.
1) What is Industrial Revolution?
Ans- The transition to new manufacturing process in Europe and the United States is called Industrial revolution.

2) Where did the Industrial Revolution begin?
Ans- The Industrial revolution begin in Great Britain.

3) When did the Industrial Revolution start?
Ans- The Industrial revolution started from 1760 and lasted till 1840.

4) What were the causes of Industrial Revolution?
Ans- Many reasons lay behind the industrial revolution. Some important causes were the black plague, singing of Magna Carta, breaking with the Catholic Church and agricultural revolution.

5) Why Britain became the ground of Industrial Revolution?
Ans- Britain became a ground of industrial revolution due to many reasons. There were increased demands of British goods because of the success of British mercantilism. There was political stability in Britain and the citizen enjoyed civil liberties. Also its geographical location was good so Britain participated in wars but suffered no damage. Many of the technological innovations were of British origin.

6) How does Industrial Revolution helped in Urbanization?
Ans- Industrial revolution resulted in urbanization as a growing number of people moved to urban centres in search of employment.

7) What were the positive effects of Industrial Revolution?

Ans- The positive effects of Industrial revolution were-

- It created jobs.
- Wealth of the nation increased.
- Production of goods increased.
- Standards of living of people were raised.
- It led to many inventions.

8) What were the negative effects of Industrial Revolution?

Ans- The negative effects of industrial revolution were-

- It caused pollution
- The working conditions were bad.
- It made the poor, poorer
- It forced many labours to work with low wages.

9) What were the main inventions during the revolution?

Ans- The main inventions during the revolution were steamboat and Electrical Telegraph.

10) Write about the transport and communication during the revolution.

Ans- Transport and communication developed a lot during Industrial revolution. Main transports were waterways and railways. Steamboat was a major invention. Communication developed with the invention of electrical telegraph.
A.N.M.S.
Chapter: Rotation ad Revolution

ANSWERS:

Q1. Name the eight planets of the solar system.
Ans: The eight planets of the solar system are: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune.

Q2. Define Galaxy. What is solar system?
Ans: Galaxy is a huge collection of gas, dust and billions of stars and their solar systems.
Solar system consists of the Sun, and everything that orbits, or travels around, the Sun. This includes the eight planets and their moons, dwarf planets, countless asteroids and comets.

Q3. Define Rotation. What causes day and night?
Ans: The spinning of the earth is called rotation. The Earth takes 24 hours to complete one rotation.
Rotation causes day and night.

Q4. What is Revolution?
Ans: Revolution is the movement of the earth around the Sun. The Earth takes 365 days and 5 hours to complete one revolution around the Sun.
Q5. Name the seasons caused by the revolution of the Earth.

Ans: Summer, Winter, Autumn and Spring are the seasons caused by the revolution of the earth.

Q6. What would have happened if the Earth’s axis were not tilted?

Ans: If the Earth’s axis were not tilted it would be no seasons.

Q7. What are the differences between Rotation and Revolution.

Ans:

<table>
<thead>
<tr>
<th>Rotation</th>
<th>Revolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The spinning of the earth is called rotation.</td>
<td>1. Revolution is the movement of the earth around the sun is called revolution.</td>
</tr>
<tr>
<td>2. The Earth takes 24 hours to complete one rotation.</td>
<td>2. The Earth takes 365 days and 5 hours to complete one revolution.</td>
</tr>
<tr>
<td>3. Rotation causes day and night.</td>
<td>3. Revolution causes seasons.</td>
</tr>
</tbody>
</table>

Q8. Why does the Earth rotate?

Ans: The Earth rotates because of the way it was formed. Our solar system formed about 4.6 billion years ago when a huge cloud of gas and dust started to collapse under its own gravity. As the cloud collapsed, it started to spin.

Q9. How many days and hours the earth take to complete one revolution?

Ans: The Earth takes 365 days and 5 hours to complete one revolution.

Q10. Why is the Earth known as blue planet?

Ans: The Earth is known as blue planet because earth is the only planet in our solar system that has a large amount of water. About 74% of the surface of the earth is covered by liquid or frozen water.