HOME ASSIGNMENT(6) 2020-2021

CLASS-6   SUBJECT-GEOGRAPHY

CHAPTER-2 MAJOR LANDFORMS OF THE EARTH

A Short Re-cap

So far we have studied about the different types of landforms found in the surface of the earth. We have studied about the ENDOGENIC (Internal) and the EXOGENIC (External) PROCESS which leads to the formation of the landforms.

We have learnt about Mountains and some of its type,example (FOLD,BLOCK,VOLCANIC)mountains.(For the definitions see the notes provided on 5/5/2020)

Moving on with today's topic.We will learn about-

- Importance of Plateaus.
- Details of Plains.

IMPORTANCE OF PLATEAUS

1. Plateaus are a storehouse of minerals.In India,the Deccan and the Chottanagpur plateaus reserves of coal,iron ore.
2. Rivers in the plateau regions form a number of waterfalls which are utilised for irrigation,generation of hydroelectricity.
3.The natural beauty of the plateaus attracts many tourists.

PLAINS
A plain is a low lying,flat land surface with a very gentle surface.Plains are generally not more than 200m above the mean sea level.Based on their formation,plains are classified into three types-structural plains, erosional plains and depositional plains

STRUCTURAL PLAINS
These plains have been formed in those areas where rock layers on the earth's crust are aligned horizontally.They are also called tectonic plains

EROSIONAL PLAINS
These plains have been formed as a result of the continuous wearing down of highlands by the agents of erosion like rain,wind.

DEPOSITIONAL PLAINS
These plains have been formed by the deposition of silt,sand,clay by rivers in low-lying areas.

IMPORTANCE OF PLAINS
- Most plains have fertile soil and provide ideal conditions for agriculture.

- The flat surface of plains helps in the construction of transport networks, buildings and industries.
- No wonder that the plains are the most thickly populated areas of the world.

TYPE	EXAMPLE
Structural	Russian Platform
Erosional	West Siberian
Depositional	Northern plains of India

Figure 2.7 Major Plateaus and Plains of the World
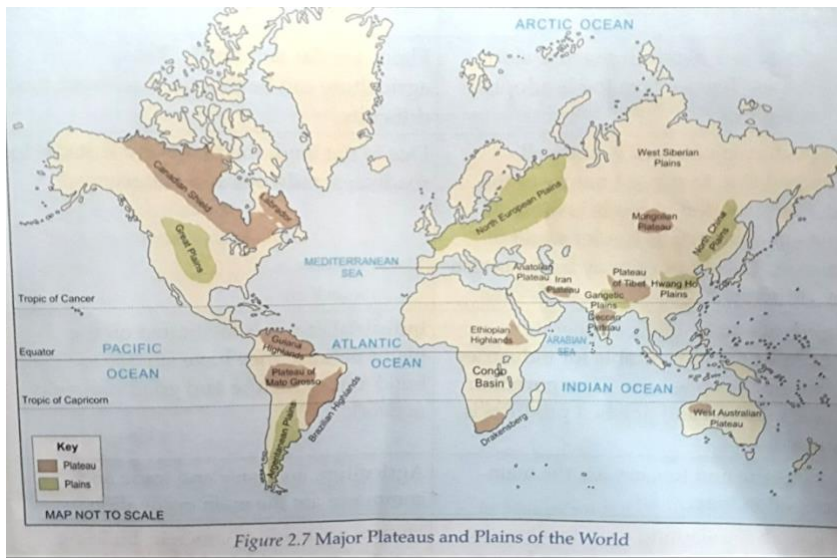
QUESTIONS

1. Which two landforms are the storehouse of minerals?

2. Write the importance of plateaus.

3. What are the types of Plains? Give example

4. Write the importance of plains.

CH-2 ANSWER MATERIAL

1. Write the importance of mountain.

- The glaciers in the mountains give rise to many Perennial rivers (Rivers which carry throughout the year).Dams built across these rivers are used for irrigation and generation of hydroelectricity.
- The gentle slopes of the mountains are used for cultivation of crops and fruits.
- Mountains provide minerals for industries.
- Dense forests in the mountain slopes are home to a variety of wildlife.
- Mountains are famous for scenic beauty. Mountains are a great tourist spot. Various mountain sport such as trekking, climbing, paragliding are very popular
- Most importantly mountains act as a climatic barrier. For example-the Himalayas stop the monsoon winds from the south west and prevent the cold wind from the north to cross over.

2. What are the different types of Valleys?

A valley usually has a river at the bottom.Valleys formed by rivers resemble the alphabet "V". River valleys that are very deep, with steep walls are called *GORGES* and they form the alphabet "I". The Indus and Brahmaputra rivers have formed spectacular gorges when they cut across the Himalayas.
Valleys carved out by glaciers are called U-shaped valleys.They are found in snow capped mountain ranges.
Blocks formed during the process of faulting either gets subsided or uplifted ,these are **RIFT VALLEYS.**They are very deep with steep,vertical walls.
Th**e African Rift Valley** is the biggest of its kind with the Nile River flowing through it.

3. Write the similarities in importance of mountains and valleys.

ANS-Both mountains and valleys have scenic beauty which attract tourists. Water source found in these landforms are used to generate hydroelectricity.

4. Define- i. CONTINENTAL PLATEAUS RISE ABRUPTLY FROM THE ADJACENT LOWLAND OR SEA.For example-Chhotanagpur in India.

INTERMONTANE PLATEAUS ARE ENCLOSED BY MOUNTAIN RANGES.For example-Great Basin in the USA.

PIEDMONT PLATEAUS ARE FORMED AT THE FOOT OF THE MOUNTAINS.For example Patagonia in Argentina.

5. Define- RESIDUAL PLATEAUS and VOLCANIC PLATEAUS. Give examples.

RESIDUAL PLATEAUS-Old fold or block mountains worn down by millions of years of erosion,sometimes get converted to plateaus.For example-Cumberland in the USA.

VOLCANIC PLATEAUS-Volcanic eruption leads to formation of layers of lava sheets these solidify to form volcanic plateaus.For example-Deccan in India.

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HOMEWORK SOLUTION

ক) নিচের প্রশ্নগুলির উত্তর দাওঃ-

১) অধিকরণকারক কাকে বলে ? উদাহরণ দাও ।

উঃ- ক্রিয়ার আশ্রয়কে অধিকরণ কারক বলে অর্থাৎ যে স্থানে , যে সময়ে বা যে অবস্থায় ক্রিয়া সম্পন্ন হয় তাকে অধিকরণকারক বলে । যেমন – **সকালে** বৃষ্টি হয়েছে ।

২) কর্তৃকারক কাকে বলে ? উদাহরণ দাও ।

উঃ- যে বিশেষ্য বা সর্বনাম পদ বাক্যে ক্রিয়া সম্পাদন করে বা অন্য কোন ব্যক্তি বা বস্তুর সাহায্যে কাজ করায় তাকে কর্তৃকারক বলে । যেমন – **আমি** আজ কলকাতায় যাব।

৩) নিমিত্তকারক কাকে বলে ? উদাহরণ দাও ।

উঃ- কর্তা যার জন্য বা যার উদ্দেশ্যে ক্রিয়া সম্পাদন করে তাকে নিমিত্তকারক বলে । যেমন - **দরিদ্রদের** জন্য বস্ত্র বিতরণ করা হচ্ছে ।

খ) চিহ্নিত পদগুলির কারক নির্ণয় করঃ-

১) **পাগলে** কী না বলে । ───────── **কর্তৃকারক**

২) আমরা সবাই মিলে **স্কুলে** যাচ্ছি । ───── **অধিকরণ কারক**

৩) ছেলেরা **ফুটবল** খেলে । ───────── **কর্মকারক / করণকারক**

৪) **সরষে থেকে** তেল হয় । ───────── **অপাদান কারক**

৫) ছেলেটির **দু চোখ দিয়ে** জল পড়ছে । ─── **অপাদান কারক**

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একজন করে এসে দাঁড়াও ।

ওরা **চারজন** বসে গল্প করছে ।

———উপরে দেওয়া বাক্যগুলি ভালোভাবে লক্ষ করলে দেখবে , প্রতিটি বাক্যেই কোন সংখ্যার উল্লেখ করা হয়েছে । প্রথম বাক্যে ‘একজন’ অর্থাৎ এক (১) এবং দ্বিতীয় বাক্যে ‘চারজন’ অর্থাৎ চার (৪) সংখ্যার উল্লেখ রয়েছে । সুতরাং কেবলমাত্র অঙ্কের ক্ষেত্রেই সংখ্যা ব্যবহৃত হয় না , বাংলা ব্যাকরণেও সংখ্যার গুরুত্ব অপরিসীম ।

- যার দ্বারা পদার্থের সংখ্যার বিষয়ে আমাদের বোধ জন্মায় , তাকে বচন বলে । ‘পদার্থ‘ বলতে যে কোন জিনিস বা প্রাণীকে বোঝায় । অর্থাৎ কেবলমাত্র বিশেষ্য এবং সর্বনাম পদেরই বচন হয় । অর্থাৎ —

- **বচন — যার দ্বারা কোন ব্যক্তি , বস্তু বা প্রাণীর অর্থাৎ বিশেষ্য বা সর্বনাম পদের সংখ্যার বিষয়ে আমাদের বোধ জন্মায় তাকে বচন বলে ।**

- বাংলা ভাষায় বচন দুই প্রকার । ————
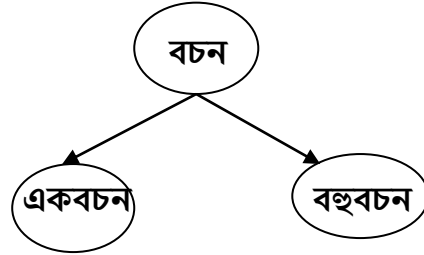
- **একবচন – যার দ্বারা একটিমাত্র ব্যক্তি , বস্তু বা প্রাণী বোঝায় তাকে একবচন বলে ।**

- একবচনের চিহ্ন হল – এক , একটা , একটি , একখানা , টি , টা , খানা ইত্যাদি ।
  যেমন – **এক** রাজা ছিলেন ।
  কলমটা দাও ।

- **বহুবচন - যার দ্বারা একের বেশি ব্যক্তি , বস্তু বা প্রাণী বোঝায় তাকে বহুবচন বলে ।**

- বহুবচনের চিহ্ন হল – রা , এরা , দের , দিগের , বৃন্দ , গণ , গুলি , রাশি ইত্যাদি ।

  যেমন – **ছেলেরা** মাঠে খেলছে ।

    আমরা ছাত্রদল ।

- প্রাচীন গ্রিক ও আরবি ভাষায় এবং সংস্কৃত ভাষায় একবচন ও বহুবচন ছাড়াও আর একটি বচনের উল্লেখ আছে – তার নাম দ্বিবচন । দ্বিবচন দুটি সংখ্যা নির্দেশক – অর্থাৎ এর দ্বারা দুটি প্রাণী বা বস্তু বোঝায় । তবে বাংলা ভাষায় দ্বিবচন নেই ।

- বিশেষ্য পদের বহুবচনের কিছু রূপ নিচে দেখানো হল ———

একবচন	বহুবচন	একবচন	বহুবচন
দেব	দেবগণ	বৃক্ষ	বৃক্ষসমূহ / বৃক্ষসকল
নর	নরগণ	শিক্ষক	শিক্ষকমন্ডলী
কুসুম	কুসুমদাম	নদী	নদীসমূহ
মেঘ	মেঘপুঞ্জ	কেশ	কেশদাম
পণ্ডিত	পণ্ডিতবর্গ / পণ্ডিতমন্ডলী	পর্বত	পর্বতমালা / পর্বতসকল
ভাই	ভাইসব	সভ্য	সভ্যবৃন্দ
পক্ষী	পক্ষীকুল	বন্ধু	বন্ধুমহল
পুষ্প	পুষ্পরাজি	ঋষি	ঋষিগণ

- বিশেষ্যের মতো সর্বনাম শব্দগুলির বহুবচন হয় । নিচে কতকগুলি সর্বনাম শব্দের বহুবচনের রূপ দেখানো হল –

একবচন	বহুবচন	একবচন	বহুবচন
আমি	আমরা	আমার	আমাদের
আমাকে	আমাদেরকে	তুমি	তোমরা
তোমার	তোমাদের	তোমাকে	তোমাদেরকে
তুই	তোরা	তোর	তোদের
তোকে	তোদেরকে	আপনি	আপনারা
আপনার	আপনাদের	আপনাকে	আপনাদেরকে
সে	তারা	তার	তাদের
তাকে	তাদেরকে	তিনি	তাঁরা
তার	তাঁদের	তাঁকে	তাঁদেরকে
ও	ওরা	ওর	ওদের
ওকে	ওদেরকে	এ	এরা
এর	এদের	একে	এদেরকে
এটা	এগুলি	ওটা	ওগুলি
ইহা	ইহারা	উহা	উহারা
যে	যারা	কে	কারা
সেটা	সেগুলি	কী	কোনগুলি

CLASSWORK

১) বচন কাকে বলে ?

উঃ- যার দ্বারা কোন ব্যক্তি , বস্তু বা প্রাণীর অর্থাৎ বিশেষ্য বা সর্বনাম পদের সংখ্যার বিষয়ে আমাদের বোধ জন্মায় তাকে বচন বলে । যেমন – **পাখিটি** গান গাইছে ।

২) বচন কয় প্রকার ও কী কী ?

উঃ- বাংলা ভাষায় বচন দুই প্রকার । সেগুলি হল – একবচন ও বহুবচন ।

৩) একবচন কাকে বলে ? উদাহরণ দাও ।

উঃ- যার দ্বারা একটিমাত্র ব্যক্তি , বস্তু বা প্রাণী বোঝায় তাকে একবচন বলে । একবচনের চিহ্ন হল – এক , একটা , একটি , একখানা , টি , টা , খানা ইত্যাদি । যেমন – **এক** রাজা ছিলেন ।

৪) বহুবচন কাকে বলে ? উদাহরণ দাও ।

উঃ- যার দ্বারা একের বেশি ব্যক্তি , বস্তু বা প্রাণী বোঝায় তাকে বহুবচন বলে । বহুবচনের চিহ্ন হল – রা , এরা , দের , দিগের , বৃন্দ , গণ , গুলি , রাশি ইত্যাদি । যেমন – **ছেলেরা** মাঠে খেলছে ।

HOMEWORK

১) নিচের শব্দগুলি একবচন থেকে বহুবচনে রূপান্তর করঃ-

ক) তোমার   খ) মেঘ

গ) বৃক্ষ   ঘ) ও

ঙ)পন্ডিত   চ) তোর

ছ) আপনাকে   জ)শিক্ষক

ঝ) উহা   ঞ) বন্ধু

ট) তাঁর   ঠ) তুই

ড) ইহা   ঢ) এ

ণ) কী

चित्र वर्णन

प्रस्तुत चित्र में पानी की एक बड़ी बूँद के अन्दर टपकता हुआ नल तथा कुछ जल के प्रति जागरूक बच्चे दिखाई दे रहे हैं। इस चित्र द्वारा यह समझाया जा रहा है कि जल की एक-एक बूँद मूल्यवान है। इस चित्र में एक दीवार पर एक नल लगा हुआ है। उस नल में से पानी की बूँदें टपक रही हैं। दो बच्चे एक आदमी का ध्यान उस ओर आकर्षित कर रहे हैं। वे बच्चे या तो यह कहना चाह रहे हैं कि पानी व्यर्थ बहाया, तो एक दिन इस तरह बूँदों से ही सन्तुष्ट होना पड़ेगा या वे यह कहना चाहते हैं कि नल खराब होने की वजह से उसमें लगातार बूँद-बूँद पानी टपक रहा है, तो इसे ठीक करवाकर पानी को व्यर्थ बहने से रोका जाये। सार यही है कि पानी व्यर्थ नहीं बहना चाहिए।

आज हम सभी जानते हैं कि पानी कितना अनमोल है। प्रकृति से खिलवाड़ की वजह से आये दिन हमें प्राकृतिक प्रकोप झेलने पड़ते हैं। अब समय आ गया है कि हम जल के महत्त्व को जानें तथा उसे व्यर्थ बहने से बचायें। हमारे घर, मुहल्ले व शहर से शुरुआत करते हुए कहीं भी पानी का व्यर्थ बहना रोकें। कोई भी नल खराब हो, तो उसे तुरन्त ठीक करवायें तथा अपने मित्रों और पड़ोसियों को भी इसके लिए जागरूक करें।

जल के बिना हम जीवित नहीं रह सकते, इसलिए जल को जीवन कहा जाता है। हमें अपना जीवन बचाने के लिए जल की एक-एक बूँद को बचाना होगा साथ ही जल-प्रदूषण को रोकना हमारा प्रथम कर्तव्य होना चाहिए।

Date : 07.05.2020

Divisibility Rules (Tests)

A divisibility test is a rule for determining whether one whole number is divisible by another. It is a quick way to find factors of large numbers.

Divisibility by 2

Any even number or number whose last digit is an even number i.e. 2,4,6,8 including 0 is always completely divisible by 2.
Example: 508 is an even number and divisible by 2 but 509 is not an even number, hence not divisible by 2.
Procedure to check whether 508 is divisible by 2 or not is as follows:

- Consider the number 508
- Just take the last digit 8 and divide it by 2
- If the last digit 8 is divisible by 2 then the number 508 is also divisible by 2.

Divisibility Rules for 3

Divisibility rule for 3 states that a number is completely divisible by 3 if the sum of its digits is divisible by 3 i.e., it is a multiple of 3
Consider a number, 308. To check whether 308 is divisible by 3 or not, take sum of the digits (i.e. 3+0+8= 11). Now check whether the sum is divisible by 3 or not. If the sum is a multiple of 3 then the original number is also divisible by 3. Here, since 11 is not divisible by 3, 308 is also not divisible by 3.
Similarly, 516 is divisible by 3 completely as the sum of its digits i.e. 5+1+6=12, is a multiple of 3.

Divisibility by 4

If the last two digits of a number are divisible by 4, then that number is a multiple of 4 and is divisible by 4 completely.
Example: Take the number 2308. Consider the last two digits i.e. 08. As 08 is divisible by 4, the original number 2308 is also divisible by 4.

Divisibility by 5

Numbers with last digit 0 or 5 are always divisible by 5.
Example: 10, 10000, 10000005, 595, 396524850 etc.

Divisibility by 6

Numbers which are divisible by both 2 and 3 are divisible by 6. That is, if last digit of the given number is even and the sum of its digits is a multiple of 3, then the given number is also a multiple of 6.
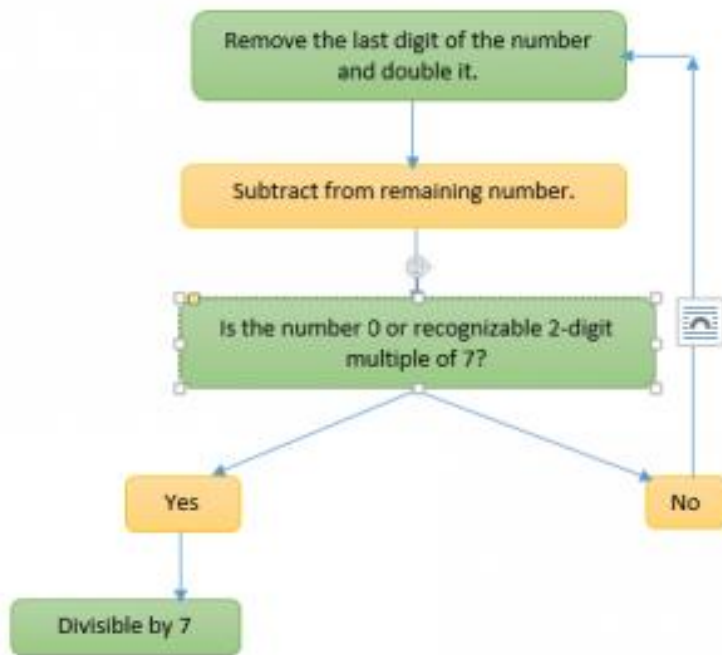**Example:** 630, the number is divisible by 2 as the last digit is 0.
The sum of digits is 6+3+0 = 9, which is also divisible by 3.
Hence 630 is divisible by 6.

Divisibility Rules for 7

The rule for divisibility by 7 is given below:

Example: Is 1073 divisible by 7?
- From the rule stated remove 3 from the number and double it, which becomes 6.
- Remaining number becomes 107, so 107-6 = 101.
- Repeating the process one more times, we have 1 x 2 = 2.
- Remaining number 10 – 2 = 8.
- As 8 is not divisible by 7, hence the number 1073 is not divisible by 7.

Divisibility by 8

If the last three digits of a number are divisible by 8, then the number is completely divisible by 8.
Example: Take number 24344. Consider the last two digits i.e. 344. As 344 is divisible by 8, the original number 24344 is also divisible by 8.

Divisibility by 9

The rule for divisibility by 9 is similar to divisibility rule for 3. That is, if the sum of digits of the number is divisible by 9, then the number itself is divisible by 9.
Example: Consider 78532, as the sum of its digits (7+8+5+3+2) is 25, which is not divisible by 9, hence 78532 is not divisible by 9

Divisibility by 10

Divisibility rule for 10 states that any number whose last digit is 0, is divisible by 10.
Example: 10, 20,30,1000,5000,60000 etc.

Divisibility Rules for 11

If the difference of the sum of alternative digits of a number is divisible by 11 then that number is divisible by 11 completely.
In order to check whether a number like 2143 is divisible by 11 following is the procedure.
- Group the alternative digits i.e. digits which are in odd places together and digits in even places together. Here 24 and 13 are two groups.
- Take the sum of the digits of each group i.e. 2+4=6 and 1+3= 4
- Now find the difference of the sums; 6-4=2
- If the difference is divisible by 11, then the original number is also divisible by 11. Here 2 is the difference which is not divisible by 11.

- Therefore, 2143 is not divisible by 11.

Divisibility Rule for 12 :

If a number is divisible by both 3 and 4, then it is divisible by 12.
Example 1 :
Check whether 8520 is divisible by 12 or not.
Solution :
We know that if the given number is divisible by both 3 and 4, then it is divisible by 12.
First, check whether the given number is divisible by 3.
Sum of the digits :
$8 + 5 + 2 + 0 = 15$
Sum of the digits (15) is a multiple of 3.
So, the given number is divisible by 3.
Now, check whether the given number is divisible by 4.
In the given number 8520, the number formed by the last two digits is 20 which is divisible by 4.
So, the number 8520 is divisible by 4.
Now, it is clear that the given number 8520 is divisible by both 3 and 4.
Therefore, the number 8520 is divisible by 12.

Divisibility Rules Solved Examples

Example 1:
Check if 288 is divisible by 2.
Solution:
Given, 288 is a number.
If the last digit of 288 is divisible by 2, then 288 is also divisible by 2.
The last digit of 288 is 8, which is divisible by 2, such that;
$8/2 = 4$
Hence, 288 satisfy the divisibility rule for 2.

Example 2 :
Check whether 252 is divisible by 3.
Solution:
Add all the digits in the number 252.
$2 + 5 + 2 = 9$
The sum of the digits in the given number 252 is 9 which is a multiple of 3.
So, 252 is divisible by 3.

Example 3:
Check is 195 is divisible by 4 or not.
Solution:
As we can see, the last two digits of 195 is 95, which is not divisible by 4.
Hence, 195 is not divisible by 4.

Example 4:
Test whether 105 is divisible by 5 ?
Solution:
The given number 105 ends with 5.
So, the given number 105 is divisible by 5.

Example 5:

Check whether 5832 is divisible by 6.

Solution:

The given number 5832 ends with 2.

So, it is even number and divisible by 2.

Check whether the number 5832 is divisible by 3.

Add all the digits.

5 + 8 + 3 + 2 = 18

The sum of the digits in the given number 5832 is 18 which is a multiple of 3.

Therefore, the given number 5832 is divisible by both 2 and 3.

So, the given number 5832 is divisible by 6.

Example 6 :

Check whether 91 is divisible by 7.

Solution:

In the given number 91, twice the digit in one's place is

$$= 2 \cdot 1$$
$$= 2$$

The number formed by the digits except the digit in one's place is

$$= 9$$

The difference between twice the digit in one's place and the number formed by the other digits is

$$= 9 - 2$$
$$= 7$$

7 is divisible by 7.

So, the given number 91 is divisible by 7.

Example 7 :

Check whether 4328 is divisible by 8.

Solution:

In the given number 4328, the last three digits are not zeroes.

But, the number formed by the last three digits is 328 which is divisible by 8.

So, the given number 4328 is divisible by 8.

Example 8 :

Check whether 732000 is divisible by 8.

Solution :

In the given number 732000, the last three digits are zeroes.

So, the given number 732000 is divisible by 8.

Example 9 :

Check whether 9477 is divisible by 9.

Solution :

Add all the digits in the number 9477.

9 + 4 + 7 + 7 = 27

The sum of the digits in the given number 9477 is 27 which is a divisible by 9.

So, 9477 is divisible by 9.

Example 10 :

Check whether 9470 is divisible by 10.

Solution :

The number 9470 ends with 0.

So, it is divisible by 10.

Example 11 :
Check whether 762498 is divisible by 11.
Solution:
In the given number 762498,
Sum of the digits in odd places $= 7 + 2 + 9$
Sum of the digits in odd places $= 18$
In the given number 762498,
Sum of the digits in even places $= 6 + 4 + 8$
Sum of the digits in even places $= 18$
The difference between the sum of the digits in odd places and sum of the digits in even places is
$= 18 - 18$
$= 0$
Sum of the digits in odd places and sum of the digits in even places differ by zero.
So the given number 762498 is divisible by 11.

Example 12 :
Check whether 2340 is divisible by 12 or not.
Solution :
We know that if the given number is divisible by both 3 and 4, then it is divisible by 12.
First, check whether the given number is divisible by 3.
Sum of the digits :
$2 + 3 + 4 + 0 = 9$
Sum of the digits (9) is not a multiple of 3.
Now, check whether the given number is divisible by 4.
In the given number 2340, the number formed by the last two digits is 40 which is divisible by 4.
So, the number 2340 is divisible by 4.
Now, it is clear that the given number 2340 is divisible by both 3 and 4.
Therefore, the number 2340 is divisible by 12.

SOLUTION TO PREVIOUS HOME ASSIGNMENT
                              CLASS-VI   CHEMISTRY

SOLUTION OF 5ᵗʰ HOME ASSIGNMENT OF CHAPTER 1
1. Who is known as the Father of chemistry? Why?
Ans. Robert William Boyle (1627-1691) is known as "Father of Modern Chemistry".
 He was an Anglo Irish scientist born in Ireland. He was the first to perform experiments under controlled conditions and publish his researches with elaborate details of procedure, apparatus and observations. Robert Boyle put chemistry on a firm scientific footing, transforming it from alchemy into one based on measurements. He defined elements, compounds and mixtures.

2. Name the Chemists/scientists who:
i) Proposed atomic theory.
Ans. John Dalton
ii) Formulated the "Periodic Table of elements".
Ans. Dmitri Mendeleev
iii) Invented dynamite.
Ans. Alfred Nobel
iv) Developed a portable X-ray machine.
Ans. Marie Curie

07.05.2020   **6ᵗʰ HOME ASSIGNMENT**
                              CLASS-VI   CHEMISTRY
              CHAPTER -2 (COMMON LABORATORY APPARATUS AND EQUIPMENTS)

Nb: ELEMENTS, COMPOUNDS & MIXTURES discussed in 1ˢᵗ assignment as chapter 2 will be discussed as chapter 4.

Chemistry is a branch of science which is mostly based on experiments. An experiment performed under controlled conditions is an activity where we observe a natural or an artificially created phenomenon.
LABORATORY
        A chemical laboratory (or a chemistry laboratory) is a place to perform experiments, observe chemical processes and to analyse results.
        The following facilities should be provided to perform experiments.
1. Working Table: A laboratory has special kinds of tables. Each table is fitted with a gas tap, a sink, a reagent shelf and a waste paper basket. There is also a side shelf for keeping glassware apparatus and a fume closet.

2. Reagent shelf: All reagents and chemicals should be properly kept on the shelf with labels on every bottle so that there should not be any confusion while using the reagents.

3. Exhaust Fan: These fans are fitted near the roof of the walls to expel poisonous gases and fumes so that one can comfortably work for a longer time in the laboratory.

4. Balance room: Ever laboratory has a separate room where a number of physical and chemical balances are kept for weighing chemicals. This room is kept dust-free and smoke-free for accurate measurements.

Diagrams of common laboratory apparatus

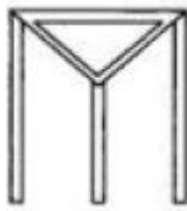| Test tube | Beaker | Round bottom flask | Flat bottom flask | Conical flask |

| Test tube stand | Measuring cylinder | Funnel | Evaporating dish |

| Mortar and pestle | Tripod stand | Test tube holder |

Names, description and uses of some apparatus are given below:

Sl.No.	Name of apparatus	Description	Use
1.	Test tube	Made of hard or Pyrex glass.	Used to conduct tests with small quantities of chemicals, for heating and boiling purposes.
2.	Test tube stand	A rack made of wood or plastic.	To keep test tubes in an organized manner.
3.	Test tube holder	Metallic rod with a clamp at one end and a handle at another end.	To hold test tubes while they are heated up.
4.	Beaker	Made of glass and available in different sizes.	For preparation and keeping of solutions.
5.	Flask	Made of glass. Three types of flask are the most common: round bottom, flat bottom and conical.	Used during experiments to hold sufficient quantities of substance.
6.	Measuring cylinder	Cylindrical glass apparatus graded in millilitres, decilitres and centilitres.	To measure the volume of liquid substances.
7.	Funnel	Cone shaped with a stem at its narrow end. Made of glass or plastic.	Used to filter and transfer liquids from one container to another.
8.	Evaporating dish	A bowl-shaped container made of porcelain.	Used for evaporating solutions/liquids.
9.	Mortar and pestle	A container made of porcelain.	Used to grind and crush solid substances into a powder.
10.	Tripod stand	A stand made of iron.	Supports the apparatus during experiments.

HOMEWORK QUESTIONS:

1. Mention one use of each of the following equipments:
a) Test tube   b) Conical flask
c) Mortar and pestle   d) Beaker
e) Measuring cylinder

2. From what materials are the following made up of?
a) Test tube stand (rack)
b) Test tube holder
c) Measuring cylinder
d) Mortar and pestle