BHARAT INSTITUTE OF TECHNOLOGY

Mangalpally, Ibrahimpatnam, R. R. District, PIN-501510

(Affiliated to JNTUH, Approved by AICTE and PCI, New Delhi. Accreditated by NAAC)

Environmental promoting activities/ Green campus Initiatives by the Institute (2022-23)

Clean India Campaign

PRINCIPAL
Bharat Institute of Technology
Mangalpally (V), Ibrahimpatnam (M),
R.R. Dist - 501 510. Telangana.

Environment day

- Environment Day: World Environment Day is celebrated annually on 5 June and encourages awareness and action for the protection of the environment. It is supported by many non-governmental organizations, businesses, government entities, and represents the primary United Nations outreach day supporting the environment.

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Environmental promoting activities/ Green campus Initiatives by the Institute (2021-22)

Report On Plantation

The goal of the Telangana government's flagship initiative, Haritha Haram, is to increase the state's green cover. The term Haritha Haram translates to "green garland" in Telugu, Telangana's official language.BITPharmacyNSS-UNITVolunterssparticipatedinthisprogrammeandmadehugesuccessful.

Swachh Bharat

Report On swachh Bharat

"On the 150th anniversary of Mahatma Gandhi's birth, India's greatest tribute would be to keep India clean,"stated Shri Narendra Modi during the Swachh Bharat Mission launch in New Delhi's Rajpath.The Swachh Bharat Mission was introduced as a nationwide effort on October 2, 2014, and it covered the entire nation. By October 2, 2021, the initiative hopes to realize the goal of a "Clean India."we are very proud of students as MOTTO NOT ME BUT YOU NSS UNIT BIT

Clean india drive

ReportonClean–Indiadrive

On the occasion of Gandhi Jayanti, our campus held a cleanliness drive as part of the Swachh Bharat Abhiyaan Program. This program's primary goal was to raise pupils' knowledge of the advantages of cleanliness.

Every student in grades nine through twelve was required to take part in this program. Teachers played a crucial role in this initiative. We were required to clean the entire school as part of this Cleanliness Drive. The observers have to be the campus clean sweepers.

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Environmental promoting activities/ Green campus Initiatives by the Institute (2018-19)

<u>Swachh Bharat Programme 2018-2019</u>

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Plantation program

PLANTATION AT OUR COLLEGE

DIGGING PIT

BHARAT INSTITUTE OF TECHNOLOGY

BHARAT INSTITUTE OF TECHNOLOGY

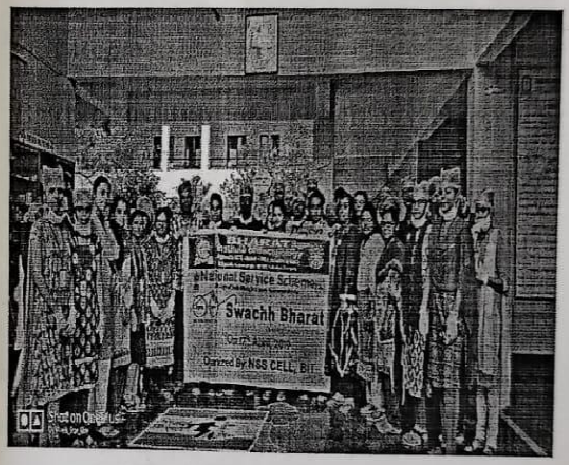
Mangalpally, Ibrahimpatnam, R. R. District, PIN-501510

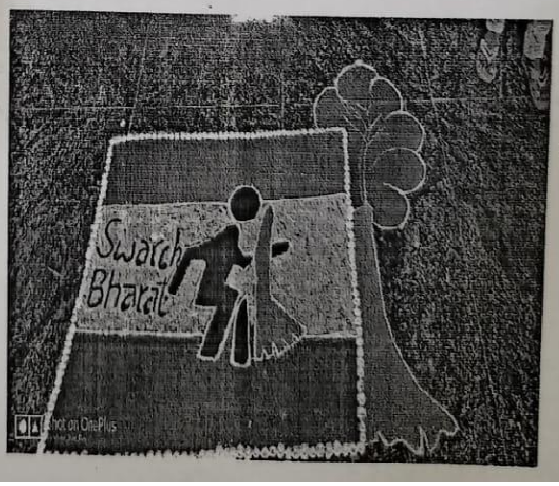
(Affiliated to JNTUH, Approved by AICTE and PCI, New Delhi. Accreditated by NAAC)

17 April 2019

Swachh Bharat Report

Swachh Bharat program was conducted in **Bharat Institute of Technology campus** on **17th April 2019** under the theme **"one step towards cleanliness"**. In this programme, students of Bharat Institute of Technology were accompanied by Dr. G Sumalatha, Mrs. P. Haritha, Ms. P. Lavanya, Ms. K. Roja, Ms. V. Sneha, Mrs. S. Nirmala bharathi, Ms. Kiran verma and Mr. P. Dinesh. The Programme was started at 01.30 pm and ended at 4.00 pm at BIT Campus. In this program, 87 students and 8 faculty members have participated. The mission was made successful with the support and guidance of Dr. Sai krushna Padhy, Principal and Chairman, Shri. CH. Venugopal Reddy. Students also greatly participated. Overall the Programme has grand success by cleaning nearby dirty area in the campus.





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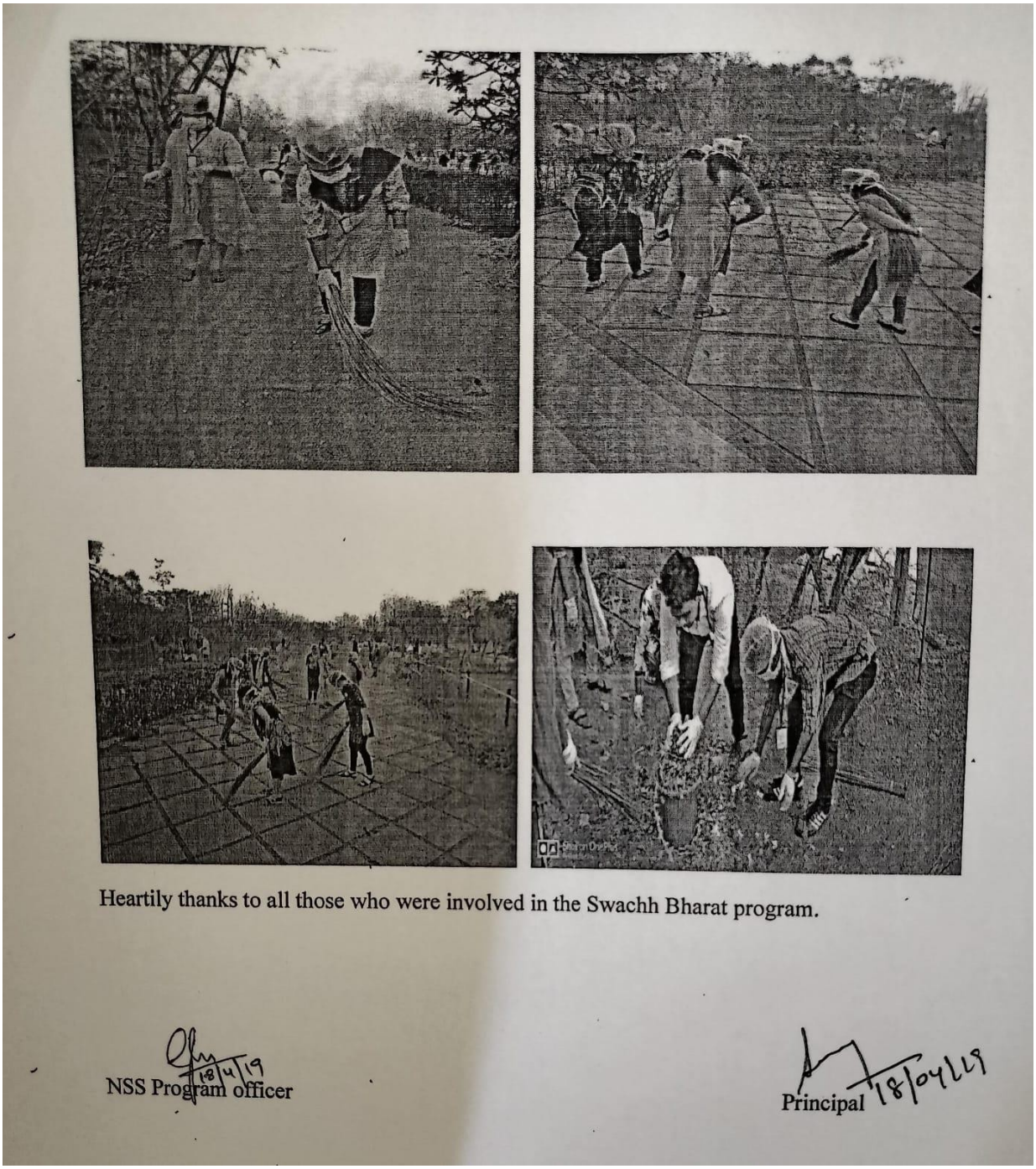

Heartily thanks to all those who were involved in the Swachh Bharat program.

18/4/19
NSS Program officer

Principal 18/04/19

BHARAT INSTITUTE OF TECHNOLOGY

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(Affiliated to JNTUH, Approved by AICTE and PCI, New Delhi. Accreditated by NAAC)

25th September 2018

PLANTATION PROGRAM Report

The Plantation program was carried out under the Title of Go Green. In this programme, students of Bharat Institute of Technology were accompanied by Dr. G Sumalatha, Dr. Shibnath Kamila, Mrs. Nirmala Bharati, Ms. T. Vijaya Lakshmi, Ms. Vanga Sneha, Mrs. T. Sravanthi and Ms. Ramalaxmi. The Plantation Programme was started at 09.00 am and ended at 12.00 pm at BIT Campus. In this program, 100 number of students and 10 number of faculty were participated. The Mission was made successful with the help of Dr. M. Kiranmai, Principal and management by sponsoring the program. Students also greatly participated and majority of the students planted the plants in BIT campus and herbal garden. Overall the Programme has grand success by planting more number of plants.

Heartily thanks to all those who were involved in the Plantation programme

Dr. G. Sumalatha.

Associate Professor

Principal

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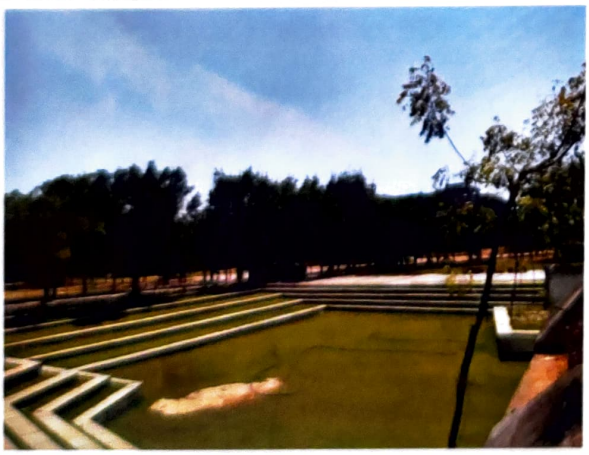
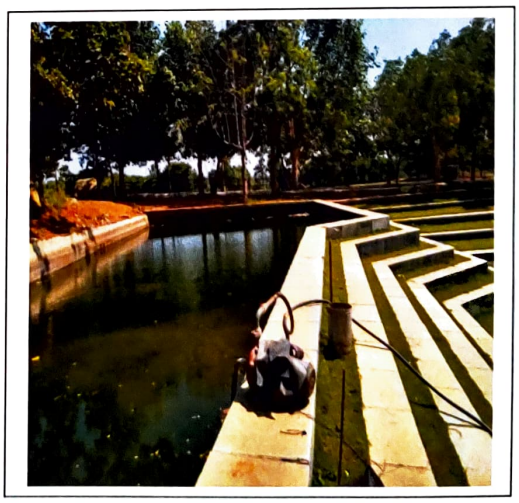
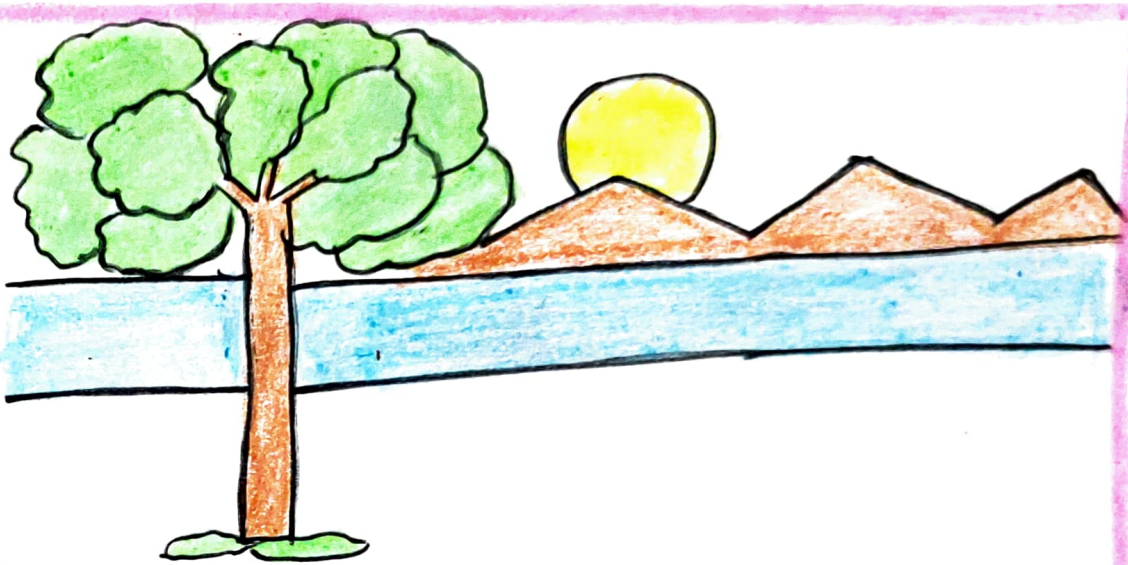
R.R.Dist-501 510. Telangana.

GREEN LANDSCAPING WITH TREES



RAIN WATER HARVESTING POINT





ENVIROMENTAL SCIENCE

STUDENTS ASSIGNMENTS ON ENVIRONMENT PROTECTION

UNDERGROUND EFFECTS OF EARTH QUAKE WITH EXAMPLES

Name : P.Nikitha

class : B-Pharmacy, BIT-B 1st year

ROLL NO : 21171R0057

TOPIC : underground effects of earthquake

Date of submission : 14/10/22

submitted TO : kavya mam

Submitted BY : P.Nikitha

UNDERGROUND EFFECTS OF EARTH QUAKE WITH EXAMPLES.

The primary effects of earth quake are ground shaking, ground rupture, landslides, tsunamis, and liquefaction. Fires are probably the single most important secondary effect of earthquakes. earth quakes are caused due to release of energy, which generates waves that travel in all directions. people's lives and property could be severely harmed if a large magnitude of earthquakes occurs. In this article, you will read about the effects of earthquakes and what are the measures to be taken to get little impact from them.

Effects of earthquakes

An earthquake is a natural disaster that can happen at any time. people's lives and property could be severely harmed if a large magnitude of earth quakes occurs. The following are the immediate dangers that an earthquake can cause:

- Ground tremors The difference in ground settling.
- Tsunamis, landslides, mudslides, and

avalanches are examples of natural disasters.

- liquefaction of the soil
- Lusching and shifting the ground
- Fires and floods
- The breakdown of the infrastructure.

Let us look in detail at some diastrous consequences:

Avalanches and Landslides

- Tremors, particularly in mountainous places, can result in slope instability and failure, resulting in debris falling down the slope and creating landslides.
- Avalanches caused by earthquakes may cause massive amounts of ice to cascade down snow-covered peaks.
- During the 2015 Nepal earthquake, multiple avalanches occurred on and around Mount Everest. The 2011 earth quake in sikkim resulted in landslides and significant damage to lives and property, particularly at the singik and upper Teesta Hydroelectric facilities.

Tsunami.

- These are unusual waves that mostly originate from earthquakes. Tsunamis are caused by earthquake seismic

waves displacing the seafloor and generating high sea waves.

The plates that covers the surface of the earth are constantly moving due to changes in the molten rock deep within the earth. The type of activity that takes place between these moving plates can result in earthquakes. Less often, the underground activity that takes place during an earthquake is volcanic. Earthquakes occur on the earth's surface, far away from the site of the action, as a result of seismic waves.

Tectonic plates

The top layer of earth, also known as the crust, is comprised of giant pieces of rock called tectonic plates. Movements within the earth caused by variations in temperature cause gradual movements in these plates. The distance that they move over the course of a year can range from less than 1 inch to a little over 2½ inches, either into, against each other, past each other or away from each other. The plates above sea level are known as continental plates,

and those below the ocean are called oceanic plates. It is along the boundaries of these plates that earthquakes usually occur.

Plate Boundaries.

In some places, the edges of tectonic plates are rough and brittle. If plates that are pushing past each other get stuck on a rough edge, energy is stored up. This energy may build for periods of time as long as hundreds of years. The energy continues to build underground until the plates are finally able to move again. This is more likely to happen where plate edges are brittle enough for parts of the rock to break off, causing a sudden jolt. At this point, energy is released underground from the point of movement, known as the epicenter, and this energy travels through the rocks around it and is felt on the surface as an earthquake. Ninety percent of earthquakes occur at plate boundaries, or faults.

Volcanic Activity

More rarely, earthquakes may be caused by volcanic activity. when magma moves into a new area underground, it encounters objects that may stop it flowing smoothly. The results can be felt as an earth quake. when magma moves undergro-nd, it can also cause rock to move into the empty spaces that were once occupied by magma but have now been left behind as it has moved on. when this type of activity occurs, earthquakes can be felt at the surface and can produce serious cracks in the surface of the earth.

Seismic waves

The underground activity of solid rock and magma can be felt on the earth's surface because of seismic waves. As potential energy is released from the underground epicentes of the earthquake, it travels outwards in all directions in the same way that ripples appear on water when a stone is

thrown into it The energy travels through surrounding material in seismic waves, and these waves can travel through solid, liquid and gaseous substances, causing them to vibrate and shake as they pass through. eventually, these waves reach the surface, or hypocenter, where they can be felt by humans The severity of the impact on the earth's surface depends on the nature of the material that the seismic waves travel through, the amount of underground movement and the amount of potential energy that has been released.

Natural Disasters caused by plate Tectonics

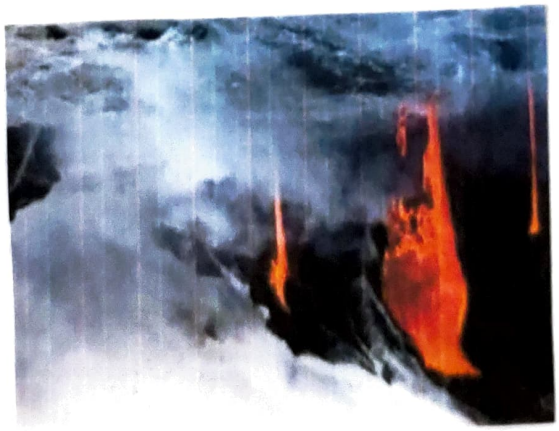


Plate tectonics are among the most influential forces that shape earth. The earth's surface is not a single, solid mass but is instead made up of many plates, each one slowly sliding on top of the planet's underlying mantle. Most of the time, these plates move slowly and only create changes over the course of millions of years. sometimes, however, two plates move abruptly with respect to each other. when that happens, the earth's surface is subject to natural disasters. Events such as earthquakes, volcanoes and tsunamis all result because of plate tectonics.

Rocks that Roll: Earthquakes

Most earthquakes occur as the result as the sudden movement along a fault line between two adjacent tectonic plates. The movement of the plates is not always smooth. The plates "catch" on each other due to friction. since the plates are always moving, these catches cause energy to build up along the fault line. Eventually, when this

catch gives way, the energy releases in an earthquake. The famous San Andreas fault in California marks the location where the North American plate and the pacific plate slide past each other. The two plates move at a rate of about 6cm per year, causing hundreds of tiny earthquakes yearly and the occasional major earthquake. Movement along this plate boundary caused the earthquakes that hit San Francisco in 1906 and 1989.

Erupting volcanoes

In general, volcanoes occur either along plate boundaries or over "hot spots". When a plate moves over the top of another plate, the energy and friction melt and rock and push the magma upwards. The increased pressure of this molten rock causes a swelling in the surface -- a mountain. The pressure continues to build over time, and, without any other

outlet for release, the mountain eventually explodes as a volcano. Volcanoes also occur where plates are pulling apart as magma oozes up to fill the resulting gap. The type of volcanic eruption, explosive or mild, essentially depends on the underlying molten rock. Rock that is "sticky" when melted tends to plug the volcano's vents until the pressure of underlying gases causes an often cataclysmic eruption. This type of eruption occured at Mt. St. Helens in washington in 1980. Other types of rock flow more smoothly when melted. In this case, the molten rock flows out of the volcano is gentler and longer eruptions. The famous Hawaiian volcanoes usually erupt in this way.

Seismic sea waves

Plate tectonics indirectly cause seismic sea waves, better known as tsunamis. when a major seismic tremor shifts the crust underneath a body of water, the energy from that tremor transfers into the

surrounding liquid. The energy spreads out from its original site, traveling through the water in the form of a wave. A tsunami wave poses little danger while in the open ocean. When the waves reaches shore, however, another story emerges. The trough of the great wave strikes land first, often seen as the pulling of water away from the shore. Then the wave peak hits, with disastrous consequences. Depending on the location of the original tremor, the configuration of the local sea floor and the distance from the tremor, the tsunami varies in size, number of waves and arrival time. The devastating tsunami of December 2004, which killed more than 300,000 people around the edges of the Indian ocean, emanated from an extremely powerful earthquake (Mw, or moment magnitude, 9.2) on the ocean floor near Indonesia.

Three types of Boundaries Between Lithospheric plates.

The earth is approximately 7,900 miles in diameter, and is comprised of three major layers: core, mantle and crust. Of the three layers, the crust is the thinnest, with an average thickness of 15 to 18 miles. The crust and the uppermost, solid part of the mantle combine to form a rigid layer of rock called the lithosphere, which is broken into many pieces called oceanic or continental plates. Areas where plate edges meet are called plate boundaries. In geology, plate bound--aries. In geology, plate boundaries are where the real action happens.

Plate Tectonics

Lithospheric plates, commonly called tectonic plates, fit together on the Earth's surface like a jigsaw puzzle. Scientists believe that the plates float on a hot, semi-solid region of the mantle called the asthenosphere. This movement is called plate tectonics. Movement of the lithospheric plates is most easily observed at the plate boundaries, where the plates converge, diverge or slip sideways. Most earthquakes and volcanism occur along or near lithospheric plate boundaries.

Convergent Plate Boundaries:-

Convergent plate Boundaries are regions where two plates converge, or collide into each other. These boundaries are sometimes called subduction zones, because the heavier, denser plate pushes beneath the lighter plate in a process called subduction. Subduction zones are associated with strong earthquakes and spectacular volcanic landscapes.

The Ring of fire around the margins of the pacific ocean is a direct result of plate convergence and subduction. Sometimes continental plates of similar density collide and neither is heavy enough to create a sub duction zone. when this happens, the brittle crust folds up and splinters as the plates collide. This process created the Himalayan Mountains.

Divergent plate Boundaries

Divergent plate boundaries are regions where lithospheric plates are moving away, or diverging from each other under the sea. In contrast to convergent boundaries that destroy old crust by subduction, divergent boundaries create new crust through a form of Volcanism. As plates move apart, magma wells up from beneath the surface to fill the spaces left by the diverging plates. The magma rises and cools in a continuous process,

forming chains of volcanic mountains and rift valleys called mid-ocean ridges. The Mid-Atlantic Ridge was formed by this process. As magma cools and forms new crust, it pushes the plates apart in a process called oceanic spreading. Oceanic spreading is slowing pushing North America away from Europe.

Transform plate Boundaries:-

The third type of lithospheric plate boundary is a transform boundary. Sometimes called a conservative boundary, because crust is neither created nor destroyed at the boundary, transform boundaries occur in regions where plates are sliding horizontally past each other. Transform boundaries are typically found on the ocean floor but occasionally occur on land.

An example of a transform boundary is found near the west coast of the United States, where the

North American and pacific plates are moving past each other. The most visible manifestation of transform boundary movement is the san Andreans fault in calitomia. Earthquakes along transform bounda-ries are generally shallow. They are caused by the accumulation and sudden release of stress and tension as the plates slip past each other.

Three Types of stress on the Earth's crust.

Three types of unequal stress on the earth's crust are compressi-on, tension, and shear. stress arises because the fractured crust rides on a ductile mantle.

which slowly flows in convection currents. The plates of the crust collide in some places, pull apart in others, and sometimes grind against each other.

Compression: when plates collide

When plates press against each other, one plate's edge is pressed downward by the compression as the other plate's edge rides over it. These subduction zones appear as deep ocean trenches, usually facing mountains -- the protruding edge of the overriding plate. In many places, such as the pacific ocean's "Ring of Fire," the material of the sinking crust interacts with the hot mantle below, causing lines of volcanoes such as those found in the Aleutian Islands, the Andes, and the cascade range of the western united states.

Tension : When plates pull Apart.

Crustal plates pulling apart from each other, or fracturing, under tension can develop rift valleys as seen in east Africa. crust fills the developing gaps in the form of basalt, which can flood the surface to form a basaltic sill. In the mid-oceanic ridges in the Atlantic and pacific oceans, molten basalt released under the water hardens into pillow-like blobs, creating new oceanic crust. the newest crust is closest to the ridges. Hydrothermal vents release hot, mineral-laden water, which resembles black smoke

Sheas : When plates Grind along Each other.

In some cases, the edges of the plates slide past each other, neither significa-ntly pressing together, nor pulling apart. Here the movement causes a lateral shear. Where movement causes horizontal displacement, it is called a "strike-slip" fault. the san

Andreas Fault, where the pacific plate has been sliding northwest ward past the North American plate, provides a good example. The movement isn't smooth, the plates build up stress which eventually releases in a sudden movement, causing earthquakes like the 1906 san Fransisco event.

Hazards of stress and Movement.

The san Fransisco earthquake provides a vivid example of danges arising from crustal movement. When Movement occurs along a fault, nearby structures suffer damage. However, the threat can come from further away as with the 2011 Japanese TOHOKU earthquake, which occured approximately 100 miles offshore to the east. Movement on a fault along a subduction zone caused the overriding sea floor to jump an estimated 50 meters, generating a series of devastating tsunami waves. Airborne volcanic ash presents hazards to global aviation.

NATURAL DISASTERS CAUSED BY EARTHQUAKES.

Earthquakes are one of most devastating and frightening natural disastess a person can expeience. They happen without waining in areas all around the world. Earthquakes can cause major damage and fatalities in populated areas, but the earthquake itself is not always to blame. other natural disastees can be caused by earthquakes and these can be equally, and sometimes more, destructive.

Volcanic Eruptions

Earthquakes may trigger volcanic eruptions. For example, in 1975, a massive earthquake hit Hawaii and a few hours later, the summit caldera in Kilauea erupted. Most earthquakes occur on or near the edges of tectonic plates. similarly, a volcano is the result of the interaction of these plates. scientists believe that seismic waves coming from earthquakes cause disturbances in the molten rock beneath volcanoes, making them active.

Landslides and Avalanches

When the earth moves during an earthquake, a landslide or avalanche can occur. Any area that has the right conditions, including moisture and the angle of the slope, can potentially experience these natural disasters. When the earth shakes, debris, soil or snow on a hilltop or

mountain side has the potential of sliding. An example is the 1994 Northridge quake, which caused thousands of landslides in the mountains above Northridge.

Tsunamis

Both strong and weak earthquakes have the ability to cause tsunamis When earthquakes rattle the sea floor, water is displaced and waves form. These waves can be large enough to be considered tsunamis. Tsunamis not only devastate the coastal area in the region where the actual earthquake occured but can also cause damage on coasts thousands of miles away. This was seen in the Japan earth quake and tsunami of 2011, which caused devastation in Japan as well as millions of dollars in damage to coastal California.

Flooding

Earthquakes can cause flooding in several ways. Clearly, a tsunami can cause flooding in areas where the wave hits inland. Broken dams and levees on rivers can also cause flooding. These structures hold water in, But when an earthquake occurs, the integrity of the structure may be damaged, and the water could potentially flood near by lowland areas.

Liquefaction

Liquefaction can happen following an earthquake. According to Michigan Tech, "Liquefaction is the mixing of sand or soil and groundwater (water underground) during the shaking of a moderate or strong earthquake." The ground turns into a quicksand consistency when water is mixed with it. If a building is build upon this type of ground, it can tip, fall over and even sink.

What are some of the forces That change land forms?

The earth's surface is constantly changing through forces in nature. The daily processes of precipitation, wind and land movement result in changes to land forms over a long period of time. Driving forces include erosion, volcanoes and earthquakes. people also contribute to changes in the appearance of land.

Erosion

Erosion breaks down land and ~~contibents~~ into smaller forms. Wind and water movement are common types of erosion. A

boulder turns into sand after years of being hit by waves and particles. A mountain eventually becomes a hill when rain breaks it apart. ocean waves and rivers push into the sides of cliffs, shaping the land. Erosion can also create new land. As rock and other sediment are carried away by the forces of erosion, they eventually settle elsewhere. New wetlands form at the mouth of rivers through this process.

Volcanoes

Lava ejects onto the surface of the Earth through a volcano, which is a crack in the opening of the planet's crust. Lava pushes land up and hardens when it comes out of the earth, and the resulting mountains are also called volcanoes. shield volcanoes can shape the land for along distance because the lava that comes out

is fluid enough to travel far. Strato volcanoes are the tallest peaks formed by volcanoes. Their smaller counterparts are called cinder cones.

Earthquakes

Earthquakes are caused by movement of crustal plates in the Earth's surface. plates might grind against, or slide above or beneath one another. When the rocks break, they cause seismic waves to ripple away from the breaking point. Earthquakes emerge as a rapid shaking of the Earth, which can sometimes by felt by living organisms. The resulting force on the earth's land includes faults, landslides, rifts and tsunamis. They can also cause damage to buildings and roads.

People

People contribute to the change of land forms through construction.

Filling up a body of water forms new pieces of land. When people build rivers and lakes, they are also changing the land's shape. Diverting a rivers allows erosion to take place in an area that otherwise may not have experienced erosion. Building a dam can slow erosion in places because the water is inhibited from pursuing its natural course. Impermeable surfaces also contribute to land change because they stop the Earth's natural absorption of water.

The Geology of the Earth's Internal processes

Internal processes within the Earth create a dynamic system that links the three major geologic sections of the Earth - the core, the mantle and the crust. Huge amounts of energy, conserved and created near the center of the Earth, are transferred by internal processes to other parts of the globe where they become the forces that create mountain chains, volcanoes and earthquakes.

The core

The Earth's core extends from about 2,900 kilometers (1,810 miles) from below its surface to its center, about 6,400 kilometers (4,000 miles) from the surface. The core produces heat by radioactive decay of the elements inside it. It has also conserved heat produced during the formation of the planet billions of years ago. This heat is the also the source of the energy that drives processes in the

mantle and the crust. The flowing liquid iron in the outer core produces a geomagnetic field that extends far into interplanetary space. This field deflects the solar wind away from the earth, thus protecting us from that harmful radiation.

The Mantle

The mantle is the shell of earth positioned between the core and the crust, with its upper surface ~~at~~ a depth of 7 to 40 kilometers (4 to 24 miles) below the surface. The heating of the mantle by the underlying core forms giant continent-sized convection cells in its viscous material. These convection cells bring the hotter bottom material to the mantle-crust interface, while the cooler material from the top of the mantle flows downward.

The crust

The upper horizontal portions of the convection cells in the mantle circulate like giant conveyor belts, dragging with them large portions of the crust and the uppermost parts of the mantle in direct contact with them. These parts of the combined crust and uppermost mantle are known as continental plates and they move a few inches a year. The interaction of the plates is called "plate tectonics". There are a few dozen plates, the larger ones being the size of continents.

Plate Tectonics

As the plates move, they inevitably come in contact with each other. When plates collide, the crust buckles into mountain ranges, the Himalayas are the result of the Indian plate running into the Eurasian plate to the

north. Mountains and volcanoes are also formed along the line where a plate to the north. 1 Mountains and volcanoes are also formed along the line where a plate dives under another and lifts it up. where two plates are moving away from eath other, deep trenches are formed with mountains and volcanoes dotted along the seam. When plates move past each other along a boundary, they form faults, which occasion-ally produce major earthquakes, the san Andreas fault in California is an example.

How Does plate Tectonics Affect the ROCK cycle?

Plate Tectonics

Plate tectonic is the movement of the earth's crust through convection currents that occur in the mantle. Divergent plate boundaries occur where hot magma rises to the surface, pushing the plates apart. The mid-ocean ridges form at divergent plate boundaries. convergent plate boundaries occur where cooled rocks becomes denser than the rocks around it and sinks back into the mantle. Oceanic trenches, folded mountains and volcanic mountains occur at convergent plate boundaries. sliding plate boundaries occur when one plate slides past another plate through a twisting force. The san Andreas fault is an example of a sliding plate boundary.

Igneous Rocks and plate Tectonics.

Igneous rocks ~~bo~~ form from the cooling of magma or lava. At diverging plate boundaries, convection currents bring hot magma to the surface. This hot magma flows out onto the ocean floor, forming extrusive, finely grained igneous rocks. At convergent plate boundaries, sedimentary rock from the ocean floor gets pushed down into the mantle. The crust increases in temperature as it dives deeper into the mantle. Eventually, the crust melts and arises to the surface causing a volcanic eruption, creating igneous rocks. Sometimes, magma that gets pushed up at plate boundaries cools

before it gets there. It fills in cracks and voids in the bedrock. When it cools, it creates igneous rock formations, such as dikes and batholiths.

Metamorphic Rocks and plate Tectonics.

Metamorphic rocks form when rocks change after undergoing extreme pressure or temperature increase. These temperature changes must be hot enough to reorganize matter within the rock but not hot enough to melt it. Hot magma pushes itself to the surface at both divergent plate boundaries and convergent plate boundaries. This magma comes in contact with rocks as it rises to the surface. The magma is hot, heating the rocks around it. As the rocks heat, they change

and become metamorphic rocks. This process is called contact metamorphism. Regional metamorphism occurs at convergent plate boundaries, due to intense pressure. As two plates collide, the earth's crust folds and faults. The intense pressure changes large areas of the earth's crust into metamorphic rock. Mountain ranges are typically metamorphic rock, due to plate tectonic processes.

Does Earthquake Activity occur More Frequently At ocean Trenches or ocean Ridges?

Tsunami

Examples:-

- An earthquake off the coast of sumatra tiggered the Tsunami on December 26, 2004; in the Indian ocean. The Indian plate was subducted beneath the Burmese plate, causing an earthquake. Around 2.4 Lakh people were killed in the Indian ocean region and its surrounding countries.
- Tsunami waves of 10 metes were generated by the catastrophic Tohoku earthquake in Japan in 2011, which was caused by an underwater earthquake of magnitude 9.

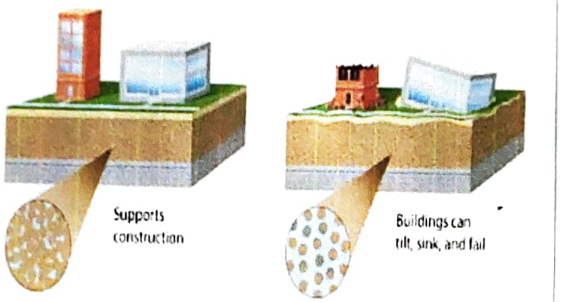
Impact of Tsunami

Liquefaction

- Liquefaction is a phenomenon in which the strength and stiffness of soil are reduced by earthquake shaking or another rapid loading. Liquefaction and related phenomena have been responsible for tremendous amount of damage in historical earthquakes around the world..
- earthquake waves get significantly amplified when they pass through soft ground, say alluvial deposit.

- It is a sudden loss of strength of water-saturated soil resulting from shaking during an earthquake.
- It can cause large ground cracks to open.
- Shaking can cause saturated soils to consolidate and thus occupy a smaller volume
- During the shaking of an earth quake, the water-saturated material turns fluid, resulting in subsidence fracturing and horizontal sliding of the ground surface.
- Landslide, mudslides, and other forms of mass movement often result form a combination of circumstances among which a quake can be crucial.
- For example, the 1964 Niigata earthquake caused widespread

Liquefaction of the soils and debris used to bill in a lagoon caused major subsidence, fracturing and horizontal sliding of the ground surface in the Marina district in san Francisco.



Impact of Liquefaction

Floods

- Dams, reservoirs, and flash floods might all the severely impacted by the earthquake. Floods can be caused by landslides and avalanches that restrict the rivers flow.

- Example: Due to the accumulation of large debris, the assam earth quake of 1950 created a barrier in the Dihang River, creating flash floods in the upstream part.
- sometimes secondary effects like fire can cause much more damage than the earthquake itself.
- sometimes earthquakes can lead to the appearance or disappearance of physical features like lakes.

Measurement

- The strength and magnitude of each earthquake vary. A seismograph is an instrument used to measure vibrations.

Magnitude scale

- The earth quake's magnitude is measured using the Richter scale.
- The amount of energy Released by a quake is measured in absolute values ranging from 0 to 10.

Richter scale

- An earthquake's intensity is measured using the Mercalli scale.
- It assesses the extent of the quake's evident damage.
- It is a number between 1 and 12

Steps can be taken for better management of earthquakes. Earthquake management refers to the planning and coordination of resources and duties for dealing with all humanitarian elements of disasters. The goal is to lessen the dangers' negative consequences. pre-earthquake risk reduction to post-earthquake recovery is all steps in earthquake management.

BHARAT INSTITUTE OF TECHNOLOGY

Mangalpally, Ibrahimpatnam, R.R. District, PIN-501510

(Affiliated to JNTUH, Approved by AICTE and PCI, New Delhi. Accreditated by NAAC)

22/06/2020

CIRCULAR

This is to inform all the faculties and students that we are organizing an Green Campus &Waste Management on 23-06-2020 so all the students must participate in the event so wear Mask, Gloves and bring sanitizers that all the class are furnished below kindly follow the schedule mentioned below. Class in charges shall make sure that students actively participate in the programme.

1. Name of the Event: Green Campus & Waste Management
2. Supporting Team : NSS Volunteers& Students of pharmacy
3. Date : 23/06/2020
4. Time : 09:00 am-2:30 am
5. Venue : College Campus ,BIET ,NB BLOCK

PRINCIPAL

Bharat Institute of Technology (Pharmacy)
Mangalpally, Ibrahimpatnam (M),
R.R. Dist - 501 510. Telangana.

Vision

To build nation's one among the best centers of excellence engaged in providing overall pharmaceutical Education including training and research. Bharat Institute of technology (Pharmacy) firmly believes that right knowledge and ethical responsibility drives individual commitment for the service of mankind.

Mission

M1: To bring students India's best education, as combination of teaching theory and practical application of knowledge and research in pharmaceutical sciences in order to train them to many positions of leadership and responsibility in pharmaceutical industry in academic and health care sector.

M2: To impart education, in a conductive ambience as comprehensive as possible , with the support of modern technologies and pedagogic tools and thereby develop in the students the abilities and passions to work wisely , creatively and effectively for the betterment of society.

M3: to impart a value based education, where the mind, body and the soul are holistically developed and major purpose of life is seen in the mankind and meeting the great challenges of the future.

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03/05/2021

CIRCULAR

This is to inform all the faculties and students that we are organizing an swatch bharat & clean campus on 04-05-2021 so all the students must participate in the programme , all the class are furnished below kindly follow the schedule mentioned below. Class in charges shall make sure that students actively participate in the programme.

1. Name of the Event: Swatch Bharat & clean campus
2. Supporting Team : Nss volunteers &students
3. Date : 04/05/2021
4. Time : 10:00 am-12:30 pm
5. Venue : College campus

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22/02/2021

CIRCULAR

This is to inform all the faculties and students that we are organizing an Clean India Drive on 23-02-2021 so all the students must participate in the event so wear Mask,Gloves and bring sanitizers that all the class are furnished below kindly follow the schedule mentioned below. Class in charges shall make sure that students actively participate in the programme.

1. Name of the Event: Clean India Drive
2. Supporting Team : NSS Volunteers& Students of pharmacy
3. Date : 23/02/2021
4. Time : 09:00 am-10:30 am
5. Venue : College Campus

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05/09/2021

CIRCULAR

This is to inform all the faculties and students that we are organizing a plantation program on behalf of NSS team, All the faculty and students are hereby instructed to be present in the college lawn and medicinal garden area on 06-Sep-2021. Each Individual should plant a sapling and support our environment. Class in charges shall make sure that students actively participate in the programme.

1. Name of the Event: Plantation (Haritha Haram)
2. Supporting Team : NSS volunteers &students
3. Date : 06/09/2021
4. Time : 10:00 am-3:30 pm
5. Venue : Lawn

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01/10/2021

CIRCULAR

This is to inform all the faculties and students that on the occasion of Gandhi jayanthi, Under Swacchta bharat mission, Swachh bharat program is going to be organized in the college campus. All the faculty and students are hereby instructed to be present in the college lawn on 02-Oct-2021.Every citizen should participate in the program and support in making the campus green. Class in charges shall make sure that students actively participate in the programme.

1. Name of the Event: Swachh Bharat Program
2. Supporting Team : NSS volunteers &students
3. Date : 02/10/2021
4. Time : 10:00 am-3:30 pm
5. Venue : Lawn

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17/10/2022

CIRCULAR

This is to inform all the faculties and students that A program "Clean India Campaign" is going to be organized by the NSS team on 19-October 2022. All the faculty and students are hereby instructed to be present in the college lawn at 10:00 am. Every student should participate in the program and support in making the campus clean. Class in charges shall make sure that students actively participate in the programme.

1. Name of the Event: "Clean India Campaign"
2. Supporting Team : NSS volunteers & students
3. Date : 19/10/2022s
4. Time : 10:00 am-3:30 pm
5. Venue : Lawn

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