TRIBHUVAN UNIVERSITY INSTITUTE OF ENGINEERING

WESTERN REGION CAMPUS,
LAMACHAUR-16, POKHARA

Subject:- English(Assignment)

Submitted by:
Naresh Jirel (073 / BCE/ 72)

Submitted To:
Mr.Shiva Tripathi
Mr.Ranjan Sharma Parajuli
Department of Science and Humanities

1. OF STUDIES

NOTES:

A.Uses of studies
1.For delight
2.For ornament
3.For ability

B.Way of reading books
1.Taste,swallow,chew and digest
2.Wholly with diligence and action

C.Benefits and effects
1. Knowledge
2. Wise,witty,subtle
3. Multiple careers

SUMMARY:

Study is done for three proposes. Firstly, it is done for our own entertainment or just to get pleasure, such as reading books on favourite author, country, scene etc. Secondly, it is done just for ornament, it means just to impress other or bring attention in hope of gaining our friend's admiration. Lastly it is done to gain competency and proficiency. There are lots of books and the way of reading it depends upon an individual. Some books are tested (not to learn deeply), some should be swallowed (books read to be hurriedly) and some should be chewed and digested with each and every details. Study has several benefits and effects. It provides us valuable knowledge, reading and learning experiences, logical ideas and creative skills. It develops our discourse, intelligent capacity. Reading makes us full, conference makes us ready man, and writing makes us exact. Therefore reading, writing and learning must go together. University scholars read and learn varieties of books which provide them multiple careers.

2. SCIENCE AND THE FUTURE

NOTES:

A. Applied Science

1.Helps to produce entirely new products
  1.1 light weight,high strength materials
  1.2 Drugs and chemicals
2.Rise to side effects too
3.Research required

B.Industrialization With Science

1.Leads to progressive exhaustion of resources
2.Should apply
  2.1.Conservation of resources
  2.2.Efficient method of resource utilization

C.Automation In Industries

1. High degree of efficiency
2. Need skilled manpower
  2.1. Few work hours
  2.2. Rises quality of education
3. Increase in surplus capital
  3.1. Solves Underdevelopment

D.Application of Science

1. Affects structure of society
2. Need of special discipline
  2.1. For major R and D project
  2.2. Little Research distortion common

SUMMARY :

Applied science helps us to produce entirely new products like light weight ,high strength materials and many required drugs and chemicals.But this productions also rises many side-effects and proper research must be carried to address the effect. Industrialization with science leads to exhaustion of resources so it should apply the conservation of the resources and efficient methods of their utilization. Automation in Industries results high degree of efficiency which need skilled manpower resulting few work hours and rise in quality of education .Automation also rises the surplus capital and contributes to solve the underdevelopment problems.However,application of science affects structure of society and need of special discipline in education is realised for major research and development projects.Little distortion in research is common though.

3. PETROLEUM

NOTES:

A. As a fuel

1. Largest source
2. Increased consumption rate
3. Different sources for obtaining
   3.1. But same composition
   3.2. Lab test for correct processing

B. Petroleum Processing

1. Not used in crude state
2. Fractional Distillation Method
   2.1. Separate fuels according to b.p.
   2.2. further processing for marketable products

C. Distillation Process

1. Originally carried in batch-stills
2. Pipe-still revolutionised refining process
   2.1. Uses fractionating towers
   2.2. Different tower parts produce different fraction oil

D.Purification

1. Cracking
   1.1. Heavier Distillates heated,molecules broken up giving petrol
2. Catalytic cracking
   2.1. Produce high octane fuel
   2.1.a. Widely used in motor car fuel
   2.1.b. Low fuel detonation

SUMMARY:

Petroleum is largest source of liquid fuel and its consumption rate is increasing day by day.There are different source of obtaining petroleum fuel but these all fuel have same composition whatever may be the source and proper lab test required for determining correct processing .Petroleum products are not used in crude state and must be processed.One of the method is Fractional distillation method in which fuels are separated according to different b.p.Further processing is required for marketable value.Distillation process originally used to carry in batch-stills.However,Pipe-still revolutionized refining process which contains fractionating towers and different parts of tower produce different fraction oil . Purified products such as petrol is produced by Cracking process in which heavier distillates are heated and their molecules get broken up giving petrol.Catalytic cracking is used to produce high octane fuel which is widely used as motor car fuel due to its low fuel detonation ability.

4. PILES FOR FOUNDATIONS

NOTES:

A.Piled Foundation introduction

1. Provide adequate support
2. Mostly for over water or on mud
3. Used in large concrete structures
4. Driven into ground displaces soil
5. In Situ piles for clay

B.Driven Piles

1. Pile driver with hammer
2. Ground's resistance and impact
3. Cast steel Helmet

C.Piles Comparison

1.Steel piles
  1.1. Greater strength-weight ratio
  1.2. Less risky
2.Concrete piles transportation problem
  2.1 Heavy
3.In situ piles
  3.1. No handling stress and hammering
  3.2. Reinforcement bars exposed
  3.2 Tied to rest of foundation

SUMMARY:

Piled foundation provide adequate support for buildings. It is mostly used for over water or on mud condition and for large concrete structures. It is driven into grounds displacing soil. In Situ piles is used for clay. The driven piles uses pile drives, which consists of pile hammer to drive the pile onto the ground displacing soil from the ground. The penetration of pile depends on ground's resistance to the pile and impact from the hammer. In order to protect the pile from breaking a helmet is used made up of cast steel. Steel piles have greater strength-weight ratio and it is less risky to place in the ground. Concrete piles due to heavy weight, are difficult to transport. In situ piles don't have handling stress and no hammering required. The reinforcement bars must be exposed from piles and these are tied to the rest of foundation.

5. CONDUCTORS AND CONDUCTIVITY

NOTES:

A.Movement of electrons

1. Flow of electrons cause electric current
2. Flow of electrons is possible in medium and vacuum
3. Speed depends on the resistance of the medium
4. Flow slower in solid.

B.Conductors and insulators

1. Conductivity depends on the degree of the resistance
2. Solutions in liquids are good conductor
3. Gases are normally insulators
4. Incase of solid
   4.1Depends upon resistivity

C.Resistance of the conductor

1. Affecting factors
   1.1. Length and cross-section of the conductor
   1.2..Resistivity of the conductor
2. Temperature effect:
   1.1. Increase in temperature,increases resistance
   1.2. Used as resistance thermometer

D. Insulation of the conductor

1. High resistivity materials used as insulation layer
2. Insulated conductors kept at low temperature
3. Suitable dielectric strength of the material should be used
4. Weather proof material used for protection

SUMMARY:

Electric current flows through cable due to flow of electrons in either medium or vacuum.The speed of the flow of electron is considerably faster in vacuum than in the medium because medium resists the flow of electron more than vacuum.In case of solid,electrons are tightly packed which makes speed slower.All the substances are electrically either conductors or insulators which depends according to the degree of resistance offered.Solutions in liquids are good conductors and gases are normally insulators.For solid,it depends on resistance of the material.The resistance of the material depends upon length,cross section and resistivity of the material.The resistivity has temperature effect;which in increment increases resistance.It is used as resistance thermometer.High resistivity materials are used as insulation layer of the conductor;it prevents from current leakage.Insulated conductors are kept at low temperature.The suitable dielectric strength materials should use for insulation and for the protection from the environmental effects,water proof materials should use for insulating materials.