The primary source of energyis the ___ |||| sun

The most important form of energy is the __ |||| electrical energy

1 Kwh = ____Kcal |||| 860

The Calorific value of a solid fuel is expressed in ____ |||| cal/gm or kcal/kg

The three principal sources of energy used for the generation of electrical energy are _____ and __ |||| water, fuels and radioactive substances

Electrical energy is ___ than other forms of energy. |||| cheaper

The electrical, heat and mechanical energies __be expressed in the same unitzs. |||| can

____continue to enjoy the chief source for the generation of electrical emergy. |||| fuels

The basic unit of energy is ____ |||| joule

An alternator is a machine which converts _____ into ___ |||| mechanical energy, electrical energy

The major heat loss in a steam power station occurs in ___|||| condenser, about 53%

The thermal efficiency of a steam power station is about __|||| 28%

Cooling towers are used where __ |||| water is not available in sufficient quantity

The running cost of a medium power stations is about __paise per unit. |||| 15

In a hydro - electric plant,spilways are used _____|||| to discharge surplus water on the downstream side of dam

Francis and Kaplan turbines are used for ___ heads |||| 5
Surge tank is provided for the protection of __ |||| pelton wheel

Of all the plants, minimum quantity of fuel is required in ___ |||| nuclear power

The cost of fuel transportation is minimum in ___Plant. |||| Hydro Electric

The cheapest plant in operation and maintenance is ____Plamt. |||| Hydro Electric

Economisers are used to heat ___ |||| Feed water

The running cost of a neuclear power plant is about __paise per unit |||| 20

Diesel power plants are used as _____plants. |||| stand by

India's first nuclear power plant was built at ___ |||| Tarapur

The most simple and clean plant is _____plant. |||| Hydro Electric

The first nuclear power plant in the world was commissioned in ___ |||| U.S.S.R

Gas turbine power plant is ___efficient than steam power plant |||| more

Draft tube is used in ____ turbines. |||| reaction

The power factor of an a.c. circuit is given by ___ power divided by __ power |||| active, apparent

The lagging power factor is due to ____power drawn by the circuit.|||| lagging reactive

UNIT - 2

By using a guard ring, string efficiency is __ |||| increased

Shunt capacitance in suspension insulators can be decreased by increasing the distance of _____ from _____ |||| conductor, tower

The insulator is so designed that it should fail only by _____ |||| flash over

Suspension type insulatos are used for voltages beyond _____- |||| 33Kv

In a string of suspension insulators, if the unit nearest to the conductor breaks down, then other units will _____ |||| also breakdown

A shorter string has ____string efficiency than a larger one. |||| more

Corona effect is _____pronounced in stormy weather as compared to fair weather. |||| more

If the conductor size is increased, the corona effect is __ |||| decreased

The longer the crossarm, the _the string efficiency. |||| greater

The discs of the strain insulators are used in __ -plane. |||| vertical

Sag is provided in overhead lines so that ____ |||| Safe tension is not exceeded

When an insulator breaks down by puncture, it is ___damaged. |||| permanently

The power loss in an overhead transmission line is mainly due to __ |||| Line conductor resistance

If the length of a transmission line increases, its inductance is ____ |||| increased

The d.c. resistance of aline conductor is ___ than it's a.c. resistance. |||| lesser

If capacitance netween two conductors of a 3 phase kline is 4micro farad, then capacitance of each conductor to neutral is _____ |||| 8Mf

If the length of the line is decreased, its capacitance is __ |||| decreased

Transposition of a 3 phase transmission line helps in __ |||| equalising inductance and capacitance of the three phases

A neutral plane is one where ___is zero. |||| electric intensity

In a single phase overhead line, the neutral plane lies at ___ |||| vertical

IF the supply frequency increases, then skin effect is ___ |||| increased

An overhead transmission lien has appreciable inductance because the loop it forms has ___ X sectional area. |||| larger

If the spacing between the conductors is increased, the inductance of the line ____ |||| increases

The skin effect is ___for stranded conductor than the solid conductor. |||| less

If the conductor diameter decreases, inductance of the line is ___ |||| increased

In short transmission lines, the effect of ____ are neglected |||| capacitance

_____ of transmission lines, is the most impoprtant cause of power loss in the line. |||| resistance

In the analysis of 3 phase transmission line, only ___is considered. |||| onephase

For a given Vr and I, the regulation of the line ____with the decrease in p.f. for lagging loads. |||| increases

If the p.f. of the load decreases, the line losses _____ |||| increase

UNIT - 3

The underground system has __initial cost than the overhead system |||| more

A ring main system of distribution is ___reliable than the radial system. |||| more

The distribution transformer links the primary and _ distribution systems |||| secondary

The most common system for secondary distribtuion is ___ 3 phase, ___ wire system. |||| 400/230v,4

The statutory limit for voltage variations at the consumer's terminal is _ % of rated value. |||| 6

The service mains connect the ___ and the ___ |||| distributor, consumer terminals

The overhead system is _____ flexible than underground system. |||| more

The main consideration in the design of a feeder is the ____ |||| current carrying capacity

A 3 wire d.c. distribution makes available _____voltages |||| two

Now a days __ system is used for distribution. |||| a.c.

The interconnected sysem ____ the reserve capacity of the systems. |||| increases

The major part of investment on secondary distribution is made on _____ |||| distribution transformers

The chances of faults in underground system are ____as compared to overhead system. |||| less

In a singly fed distributor, if fault occurs on any section, the supply to all consumers has to be ___ |||| shut off

A ring main distributor fed at one end is equivalent to ___fed at both ends with equal voltages. |||| straight distributor

A distributor is designed from ____-considerations. |||| voltage drop

The point of minimum potential of a uniformly loaded distributor fed at both ends with equal voltages will occur at ____ |||| mid point

The d.c. interconnector is used ____--the voltage drops in the various sections of the distributor. |||| to reduce

In a 3 wire d.c. system, the load on postive side is 400A and on negative side it is 300A.Then current in neutral wire is ___ |||| 100A

In a balanced 3 wire d.c. system, the potential of neutral is _____ betweet that of outers. |||| midway

A booster is used to _____voltage drop in feeders etc. |||| compensate

Balancer set is used to maintain voltage on the two sides of the neutral _____ |||| equal to each other

In a balanced 3 wire d.c. system, if voltage across the outers is 500V, then voltage betweeb any outer and neutral is ___ |||| 250V

The voltage drop in a doubly fed distributor is ___ than the equivalent singly fed distributor. |||| less

In a 3 wire system, the area of X section of neutral is generally __ of either outer. |||| half

If in a 3 wire d.c. system, the current in the neutral wire is zero, then voltage between any outer and neutral is ____ |||| the same

A booster is connected in ___ with the feeder |||| series

For exact compensation of voltage drop in the feeder, the booster must work on _____ -portion of its V-I characeristic. |||| linear

The balancer machine connected to the heavily loaded side works as a _____ |||| generator

The most common system for secondary distribution is 400/___ V, 3 phase, ___ -wire system. |||| 230,4

UNIT - 4

In forced blast oil circuit breakers, the extinguishing foce is _____ the fault current to be interrupted |||| independent of

In low oil circuit breakers, _____ -is used for insulation purposes. |||| solid material

Forced blast circuit breakers have _____ --speed of circuit interruption. |||| high
Fuses are generally used in circuits where __ operations are not expected. |||| frequent

The minimum time of operation of a fuse is __ than that of a circuit breaker. |||| smaller

A fuse element should have ___ melting point |||| low

The disadvantages of tin fuse element is that its vapour tends to ____ --when it blows out ||||
maintain the arc

The value of fusing factor is always _____ -than unity |||| more

Semi enclosed rewireable fuses have ____ --breaking capacity. |||| low

A fuse has _____ time current characteristics |||| reversed

The action of a fuse is _____ completely automatic |||| Inherently

The fuse element is generally made of ___ |||| silver

The fuse melts well _____ the first peak of fault current is reached |||| before

A fuse is __ than other circuit interrupting device of equal breaking capacity |||| cheaper

For the same material, heavy current fuse wires must have ____ diameters than for smaller currents. |||| larger

A fuse performs ____ --functions. |||| both detection and interruption

A fuse has ___ breaking capacity as compared toa acircuit breaker |||| low

Differential protection scheme for longer lines is __ _costly |||| very

The bus bar zone, for the purpose of protection, includes _____, _____ and _____ ||||
busbars, isolating switches, circuit breakers

The two most commonly used schemes for bus bar protection are _____and _____ ||||
differential protection, fault bus protection

The probability of faults occuring on the lines is much more due to their ____ -and _____ ||||
greater length, exposure to atmospheric conditions

In time graded overcurrent protection, __ -discrimination is incorporated |||| time

The parallel feeders ____ be protected by non directional overcurrent relays alone |||| cannot

The translay scheme is essentially a ___ balance system |||| voltage

A summation transformer is a device that reproduces the polyphase line currents as a _____ --phase quantity |||| single phase 2 wire

The ideal scheme of protection for lines is ____ protection |||| differential protection, fault bus protection

Accurate matching of current transformers is _ in Merz - price voltage balance system |||| essential

The most severe surges on the line are produced by _____ |||| lightning

Lightening produces a ____ fronted wave |||| steep

Transients on the power system due to current chopping are taken care of by |||| resistance switching

UNIT - 5

An earth fault current is generally ___ than short circuit current |||| less

Merz price circulating current principle is more suitable for ____ than ___ |||| generators, transformers

In an oil circuit breaker, _____ is used as the arc quenching medium. |||| some mineral oil

The quantity of oil needed for arc control oil circuit breakers is __ -than that of plain break oil circuit breaker. |||| less

Current chopping mainly occurs in ____ circuit breakers |||| air blast
Capacitive current breaking results in _____ |||| voltage surges

Cross jet explosion pot breaker can interrupt ___ -short circuit currents efficiently. |||| heavy

In forced blast oil circuit breakers, the extinguishing foce is _____ the fault current to be interrupted |||| independent of

In low oil circuit breakers, ___ --is used for insulation purposes. |||| solid material

Forced blast circuit breakers have ____ --speed of circuit interruption. |||| high

Fuses are generally used in circuits where ____ operations are not expected. |||| frequent

In a transmission line, generalised constants ____ and ___ are equal |||| A and D

A 3 wire d.c. distribution makes available _____ voltages |||| two

The underground system is _____ costly than the equivalent overhead line system. |||| more

Voltage drop in cable system is less than that of equivalent overhead line because of ____ of conductors in a cable. |||| closer spacing

A metallic sheath is provided over the insulation to protect the cable from _____ |||| moisture

In single - core cables, armouring is not done in order to avoid ____ |||| excessive sheath losses

The most commonly used insulation in high voltage cables is _____ |||| impregnated paper

Belted cables are generally used upto _____KV |||| 11

The working voltrage level of belted cables are unreliable because there is a danger of breakdown of insulation due to the ____ |||| tangential stresses

The concept of FACTS was found in the year |||| 1988

TCSC helps in limiting fault current only when the firing angle is equal to |||| 90 degree

Compared to SVC, STATCOM produces ---------- harmonics. |||| less

For effective operation, the use of STATCOM needs ---------- thyristors. |||| gate turn off

STATCOM is better than |||| SVC

The capital cost of HVDC converter is |||| more than AC substation

The power transfer capability of short lines is set by |||| thermal limit

"The voltage profile of the transmission line is low, when" |||| "reactive power absorption > reactive power generation"

"To increase the power transmitted through a long transmission line, " |||| "value of inductance can be decreased"

Increasing the frequency of transmission will |||| increase line resistance