

EDO STATE POLYTHENIC, USEN

2ND SEMESTER EXAMINATION

EEC 122 [Electrical Power 1]

ANSWER all QUESTIONS

ND 1

2 MRKS ONLY

1. Fill in the blanks by inserting appropriate words/figures.

- (i) The primary source of energy is the
- (ii) The most important form of energy is the
- (iii) 1 kWh = kcal
- (iv) The calorific value of a solid fuel is expressed in
- (v) The three principal sources of energy used for the generation of electrical energy are and

2. Pick up the correct words/figures from the brackets and fill in the blanks.

- (i) Electrical energy is than other forms of energy. (*cheaper, costlier*)
- (ii) The electrical, heat and mechanical energies be expressed in the same units. (*can, cannot*)
- (iii) continue to enjoy the chief source for the generation of electrical energy. (*fuels, radioactive substances, water*)
- (iv) The basic unit of energy is (*Joule, watt*)
- (v) An alternator is a machine which converts into (*mechanical energy, electrical energy*)

3. Fill in the blanks by inserting appropriate words/figures :

- (i) The major heat loss in a steam power station occurs in
- (ii) The thermal efficiency of a steam power station is about
- (iii) Cooling towers are used where
- (iv) The running cost of medium power stations is about paise per unit.
- (v) In a hydro-electric plant, spillways are used
- (vi) The running cost of a hydro-electric plant is about paise per unit.
- (vii) For high head hydro-electric plants, the turbine used is
- (viii) Francis and Kaplan turbines are used for heads.
- (ix) Surge tank is provided for the protection of
- (x) Of all the plants, minimum quantity of fuel is required in plant.

4. Pick up the correct words from the brackets and fill in the blanks:

- (i) The cost of fuel transportation is minimum in plant. (*steam power, hydro-electric, nuclear power*)
- (ii) The cheapest plant in operation and maintenance is plant. (*diesel power, hydro-electric, steam power*)
- (iii) Economisers are used to heat (*air, feed water, steam*)
- (iv) The running cost of a nuclear power plant is about paise per unit. (20, 48, 64)
- (v) Diesel power plants are used as plants. (*base load, standby*)
- (vi) India's first nuclear power plant was built at (*Tarapur, Rana Partap Sagar, Kalpakkam*)

- (vii) The most simple and clean plant is plant (*steam power, hydro-electric, nuclear power*)
(viii) The first nuclear power plant in the world was commissioned in(*U.S.A., U.S.S.R., England*)
(ix) Gas turbine power plant is efficient than steam power plant, (*more, less*)
(x) Draft tube is used in turbines.

Lecturer in charge: *Engr. Osadebamwen Kenneth Ojo*

ANSWERS

- (i) Sun, (ii) electrical energy, (iii) 860, (iv) cal/gm or kcal/kg, (v) water, fuels and radioactive substances.
- (i) Cheaper, (ii) can, (iii) fuels, (iv) Joule, (v) mechanical energy, electrical energy.
- (i) Condenser, about 53% (ii) 28% (iii) water is not available in sufficient quantity (iv) 15 (v) to discharge surplus water on the downstream side of dam (vi) 5 (vii) pelton wheel (viii) medium and low (ix) penstock (x) nuclear power.
- (i) Hydro-electric (ii) hydro-electric (iii) feed water (iv) 20 (v) standby (vi) Tarapur (vii) hydro-electric (viii) U.S.S.R. in 1954 (ix) more (x) reaction.