

## Nuclear Power Plant Engineering MCQ Questions and Answers Pdf

1. With natural uranium, which of the following is used as moderator?
  - a. Heavy water
  - b. Graphite
  - c. Beryllium
  - d. All the above

Ans: D

2. Which one of the following statements is correct?  
The nuclear radiators produced in a reactor, which must be shielded are
  - a. Electrons only
  - b. alpha, Beta and Gamma rays
  - c. Neutrons and Gamma rays
  - d. Electrons and Gamma rays

Ans: B

3. Which one of the following pairs of materials is used as moderator in nuclear reactors?
  - a. Heavy water and zirconium
  - b. Zirconium and beryllium
  - c. Cadmium and beryllium
  - d. Beryllium and heavy water

Ans: D

4. A nuclear unit becoming critical means
  - a. it is generally power to rated capacity
  - b. it is capable of generating power much more than the rated capacity
  - c. there is danger of nuclear spread
  - d. chain reaction that causes automatic splitting of the fuel nuclei has been established

Ans: A

5. Enriched uranium is required as fuel in a nuclear reactor, if light water is used as moderator and coolant, because light water has
  - a. high neutron absorption cross sections
  - b. low moderating efficiency
  - c. high neutrons scatter cross section
  - d. low neutron absorption cross section

Ans: C

6. Uranium 238 is represented as  ${}_{92}\text{U}^{238}$  what does it imply?

- a. It has 92 protons and 146 neutrons
- b. it has 146 protons and 92 neutrons
- c. it has 92 protons and 238 neutrons
- d. it has 92 protons and 230 neutrons

Ans: A

7. A sodium graphite reactor uses sodium

- a. as coolant and graphite as moderator
- b, as moderator and graphics as coolant
- c. with graphite as moderator and water as cobalt
- d. as moderator and sodium, graphite and water together as coolant

Ans: A

8. The function of the moderator in a nuclear reactor is to

- a. stop chain reaction
- b. reduce the speed of the neutrons
- c. absorb neutrons
- d. reduce temperature

Ans: B

9. A nuclear reactor is said to be 'critical' when the neutron population in the reactor core is

- a. rapidly increasing leading to the point of explosion
- b. decreasing from the specified value
- c. constant
- d. reduced to zero

Ans: C

10. Which one of the following types of nuclear reactor does not require a heat exchanger?

- a. boiling water
- b. pressurized water
- c. sodium-cooled
- d. gas-cooled

Ans: A