Metallurgical Engineering Nuclear Metals Objective Questions and Answers Pdf

- 1. Heat is generated in a nuclear reactor (thermal) by
 - a. Combustion of a nuclear fuel e.g., uranium
 - b. Fusion of atoms of uranium
 - c. Absorption of neutrons in uranium atoms
 - d. Fission of U-235 by neutrons

Ans: D

- 2. Which of the following does not need a moderator?
 - a. Candu reactor
 - b. Fast breeder reactor
 - c. Homogenous reactor
 - d. Pressurised water reactor

Ans: B

3. The main ore of uranium is a. Pitchblende

- b. Monazite sand
- c. Cassiterite
- d. Chalcopyrite

Ans: A

- 4. Disintegration rate of a radioactive element
 - a. Progressively increases
 - b. Progressively decreases
 - c. Remains constant throughout
 - d. May increase or decrease with time

Ans: B

- 5. Extraction of uranium from its ore is done by ____ method.
 - a. Chemical
 - b. Physical beneficiation
 - c. Electrometallurgical

As: A Which of the following isotopes is not present in natural uranium? a. U-238 b. U-234 c. U-235 d. U-232 Ans: D 7. Function of control rod in a nuclear reactor is to control the **Temperature** Pressure b. Fuel consumption d. Absorption of neutrons Ans: D

Molten sodium is used as a coolant in fast breeder reactor, because of its Excellent moderating properties Neutron breeding capability b. Faster heat removal capability from core Capability to increase the reaction rate in the core Ans: C The radioisotope used to study the thyroid gland is Iodine-131 Cobalt-60 b. Iridium-192 Carbon-14 d. Ans: A 10. Which of the following may be used to measure the rate of nuclear disintegration? Geiger-Muller counter a. Cyclotron

d. Pyrometallurgical

- c. Cloud chamber
- d. Mass spectrograph

Ans: A

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