

Minerals and Energy Resources | Important Assertion and Reason mcqs

Here are the Assertion & Reason Questions of Chapter 5 â??Minerals and Energy Resourcesâ??. These questions will help you practice different types of questions which can be asked in exams.

Must practice these Assertion/Reason questions

Q.1 Assertion (A): Bauxite is found as a result of the decomposition of surface rocks.

Reason (R): Bauxite is formed by the concentration of minerals in veins and lodes.

Options:

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true, R is false
- d) A is false, R is true

Answer: c) A is true, R is false

Explanation: Bauxite is correctly stated as being formed due to the decomposition of surface rocks, leaving behind a residual mass. However, R is false because veins and lodes are associated with metallic minerals like tin, copper, and zinc â?? not bauxite.

Q.2 Assertion (A): Placer deposits contain minerals like gold and platinum.

Reason (R): These minerals are found in alluvial deposits as they are resistant to corrosion by water.

Options:

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true, R is false
- d) A is false, R is true

Answer: a) Both A and R are true, and R is the correct explanation of A

Explanation: Gold, platinum, tin, and silver are found in placer deposits â?? which are alluvial deposits at valley floors or the base of hills. These minerals resist corrosion by water, making them remain in such deposits. Hence, both the assertion and reason are true, and R correctly explains A.

Q.3 Assertion (A): The Durg-Bastar-Chandrapur belt is one of the major iron ore belts in India.

Reason (R): This belt has some of the highest grade hematite iron ore deposits in the Bailadila range of Chhattisgarh.

Options:

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true, R is false
- d) A is false, R is true

Answer: a) Both A and R are true, and R is the correct explanation of A

Explanation: The Durg-Bastar-Chandrapur belt is indeed a major iron ore belt in India. The Bailadila range in Chhattisgarh, part of this belt, contains 14 deposits of super high-grade hematite which have excellent properties for steel production. Hence, both the assertion and the reason are true, and the reason correctly explains the assertion.

Q.4 Assertion (A): Copper is mainly used in electrical cables, electronics, and chemical industries.

Reason (R): Copper is malleable, ductile, and a good conductor of electricity.

Options:

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true, R is false
- d) A is false, R is true

Answer: a) Both A and R are true, and R is the correct explanation of A

Explanation: Copper is widely used in electrical and electronic industries because of its excellent conductivity, ductility (can be drawn into wires), and malleability (can be shaped without breaking). So, the reason accurately explains why the assertion is true.

Q.5 Assertion (A): Minerals must be used in a planned and sustainable manner.

Reason (R): Mineral resources are finite, non-renewable, and take millions of years to form.

Options:

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true, R is false
- d) A is false, R is true

Answer: a) Both A and R are true, and R is the correct explanation of A

Explanation: Minerals take millions of years to form and are available in limited quantities. This makes it essential to use them wisely and sustainably. Hence, the reason clearly supports the assertion.

Q.6 Assertion (A): Thermal power plants are often located near coalfields.

Reason (R): Coal is bulky and loses weight on use as it is reduced to ash.

Options:

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true, R is false
- d) A is false, R is true

Answer: a) Both A and R are true, and R is the correct explanation of A

Explanation: Since coal is bulky and reduces to ash during use, transporting it over long distances is costly and inefficient. Therefore, thermal power stations are usually set up close to coalfields to minimize transport costs and energy loss.

Q.7 Assertion (A): Petroleum occurs only in the folded rock layers of the Himalayas.

Reason (R): Petroleum is found in anticlines and fault traps in the rock formations of the Tertiary age.

Options:

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true, R is false
- d) A is false, R is true

Answer: d) A is false, R is true

Explanation: Petroleum is not found *only* in the folded Himalayas. It is also found in places like Mumbai High, Gujarat, and Assam. But it does occur in anticlines and fault traps, as correctly stated in the Reason.

Q.8 Assertion (A): Solar energy is becoming increasingly popular in rural and remote areas of India.

Reason (R): Photovoltaic technology is used to convert sunlight directly into electricity.

Options:

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true, R is false
- d) A is false, R is true

Answer: a) Both A and R are true, and R is the correct explanation of A

Explanation: Solar energy is indeed becoming popular in rural India, and photovoltaic technology is the reason behind its easy conversion into electricity.

Q.9 Assertion (A): Biogas is more efficient than dung cakes and firewood as a source of energy.

Reason (R): Biogas has higher thermal efficiency and provides good quality manure after use.

Options:

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true, R is false
- d) A is false, R is true

Answer: a) Both A and R are true, and R is the correct explanation of A

Explanation: Biogas is not only more energy-efficient but also improves manure quality, reducing dependence on traditional fuels.

Q.10 Assertion (A): Energy consumption in India has remained stable since Independence.

Reason (R): Economic development plans implemented since Independence required low energy inputs.

Options:

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not the correct explanation of A
- c) A is true, R is false
- d) A is false, R is false

Answer: d) A is false, R is false

Explanation: Energy consumption has increased, not remained stable. Also, development plans required high energy inputs, not low.

Note: This is my humble request to all the readers to re-check doubtful answers. Although, i always try to provide you accurate answers but sometimes unintentional errors may occur. So, do not follow all the answers blindly if they don't fit to your existing knowledge, just check it in the N.C.E.R.T. books or other reliable sources. Lastly, you can also tell me in the comments about my mistakes to make my website more error free. **(the accuracy level of my answers is 99.9% otherwise)**

Category

1. Assertion/Reason

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