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Q11

Consider the following statements: Statement-I: India, despite having uranium deposits, depends on coal for most of its electricity production. Statement-II: Uranium, enriched to the extent of at least 60%, is required for the production of electricity. Which one of the following is correct in respect of the above statements? (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I (c) Statement-I is correct but statement-II is incorrect (d) Statement-I is incorrect but Statement-II is correct Official key: C.

UPSC Civil Services Prelims 2023 · General Studies · 2 marks · Economy

Indian economy, budget, schemes - Prelims GS Paper I.

Explanation

(a)

- **Both correct and II explains I. Statement-II is false:** power reactors use low-enriched uranium, not 60%.

(b)

Both correct but II does not explain I. II is still false.

(c) Official key

I correct, II incorrect. India is coal-heavy in electricity despite uranium; civil power needs ~3-5% enrichment, not 60%.

(d)

I incorrect, II correct. Coal still dominates Indian generation.

Summary

- **Official key is (c). Statement-I is right:** most Indian electricity is still coal-fired even though the country has uranium. Statement-II confuses weapons-grade / highly enriched uranium (~90%, or 20%+ HEU) with power-reactor fuel, which is natural or low-enriched uranium (typically under 5%). Sixty per cent is not a civil-power requirement, so II does not explain I.

Related possible facts

These can be asked in a future Prelims paper.

LEU

Low-enriched uranium, typically 3-5% U-235, for light-water power reactors.

PHWR

Indian Pressurised Heavy Water Reactors run on natural uranium.

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