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Q56

Consider the following pairs : Objects in space Description 1. Cepheids : Giant clouds of dust and gas in space 2. Nebulae : Stars which brighten and dim periodically 3. Pulsars : Neutron stars that are formed when massive stars run out of fuel and collapse How many of the above pairs are correctly matched? (a) Only one (b) Only two (c) All three (d) None Official key: A.

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Science, technology, space, defence, IT - Prelims GS Paper I.

Explanation**(a) Official key**

Only one pair. Pulsars are spinning neutron stars from core collapse. Cepheids are not dust clouds; nebulae are not periodic variable stars - those two labels are swapped.

(b)

Only two. Cepheids and nebulae are reversed.

(c)

All three. Two of three rows are inverted.

(d)

None. The **pulsar** row is correctly matched.

Summary

Official key is (a) only one. Pulsars are rapidly rotating neutron stars left when massive stars collapse. Cepheids are variable stars (period-luminosity). Nebulae are clouds of gas and dust. Pairs 1 and 2 swap those meanings.

Related possible facts

These can be asked in a future Prelims paper.

Cepheid

Standard-candle variable; period tracks luminosity.

Pulsar

Lighthouse neutron star; radio pulses; Bell Burnell / Hewish.

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