



Ans: (b)

Explanation:

- IceCube:- South Pole, Antarctica
- ANTARES:- under the Mediterranean Sea off the coast of Toulon, France
- **JUNO**(Jiangmen Underground Neutrino Observatory):- **Kaiping, China**
- Baikal-GVD:- Lake Baikal, Russia
- **About Baikal- GVD:**
 - It is one of the three largest neutrino detectors in the world along with the IceCube at the South Pole and ANTARES in the Mediterranean Sea.
 - It seeks to study in detail the elusive fundamental particles called neutrinos and to possibly determine their sources.

Refer: <https://www.insightsonindia.com/2021/04/02/baikal-gvd-gigaton-volume-detector/>

15. Consider the following statements about neutrinos:

1. They are the second most abundant particles after photons.
2. They do not carry a charge.
3. They do not interact with matter.

Which of the given above statements is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: (d)

Explanation:

- **Neutrinos**, first proposed by Swiss scientist Wolfgang Pauli in 1930, are **the second most widely occurring particle in the universe**, only second to photons, the particle which makes up light.
- **So where do neutrinos fit in?**
- What makes neutrinos especially interesting is that they are abundant in nature, with about a thousand trillion of them passing through a human body every second. In fact, they are the second most abundant particles, after photons, which are particles of light. But while neutrinos are abundant, they are not easy to catch, this is because **they do not carry a charge**, as a result of which **they do not interact with matter**.

Refer: <https://www.insightsonindia.com/2021/04/02/baikal-gvd-gigaton-volume-detector/>

16. Consider the following statements about Lake Baikal:

1. It is the oldest existing freshwater lake on Earth.
2. It is the world's deepest lake.
3. It was declared a World Heritage Site by UNESCO.

Which of the given above statements is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Ans: (d)

Explanation: