

Biology

Class-7

With reference to recent developments regarding 'Recombinant Vector Vaccines', consider the following statements:

- 1) Genetic engineering is applied in the development of these vaccines.
- 2) Bacteria and viruses are used as vectors.

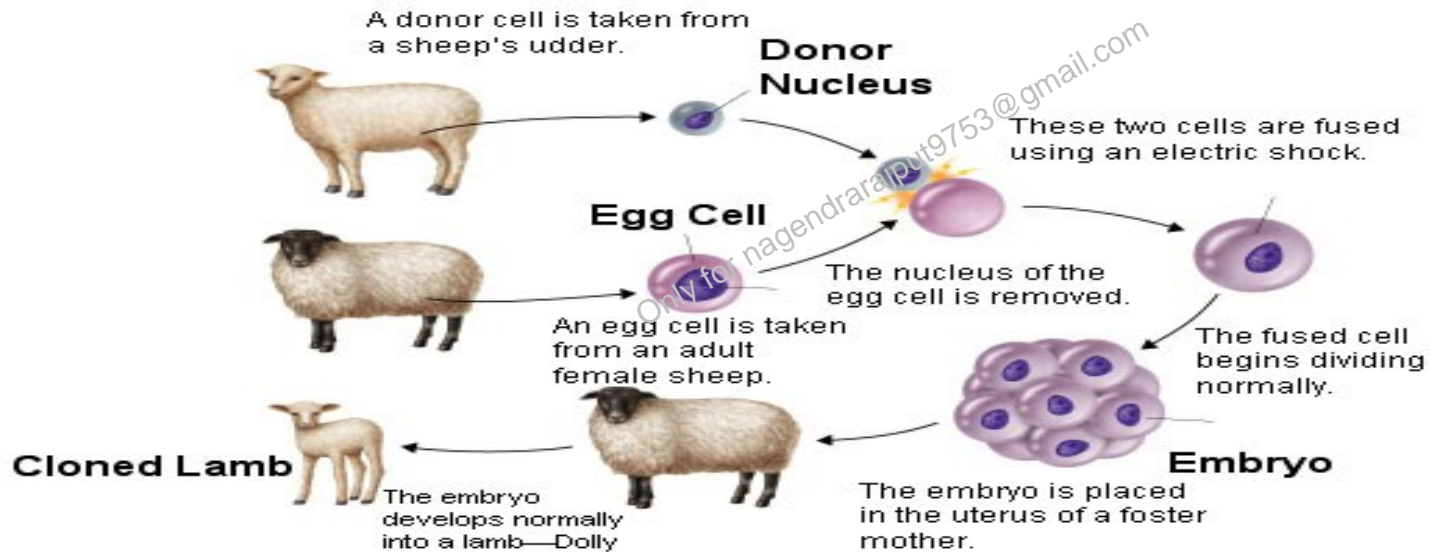
Which of the statements given above is/are correct?

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

Dolly
THE SHEEP



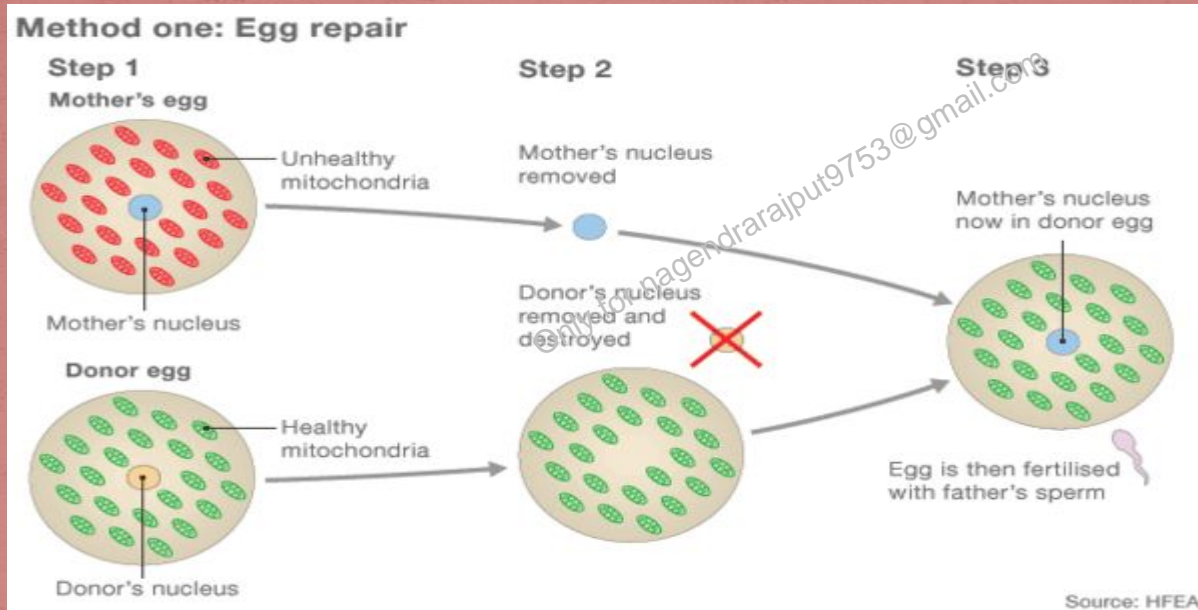
Animal Cloning



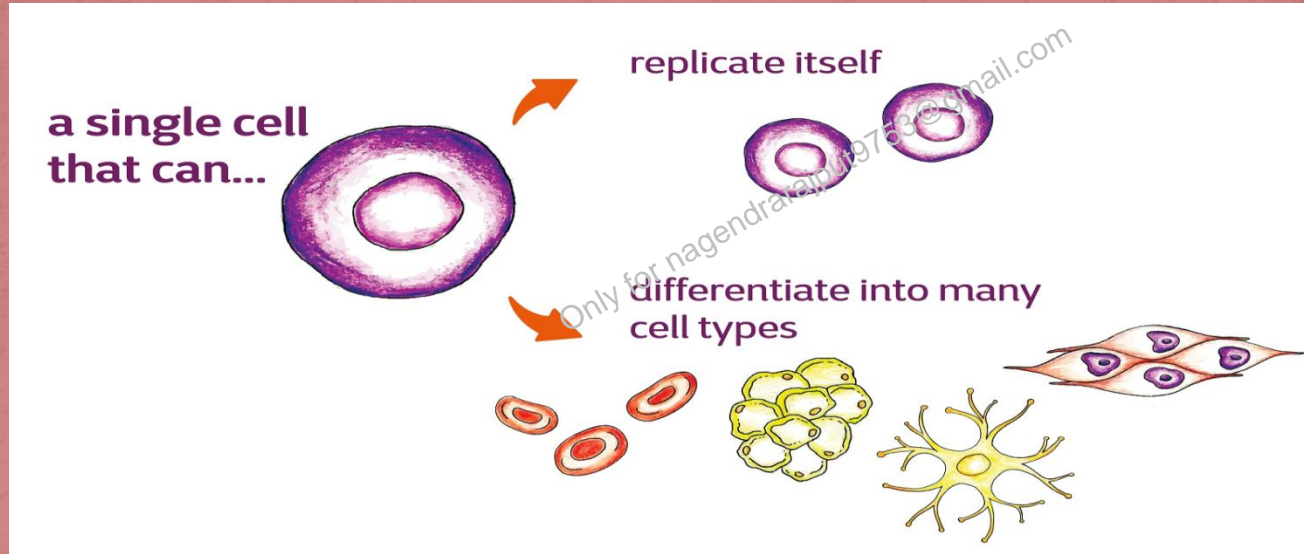
Three Parents baby



Mitochondrial Replacement



Stem Cells



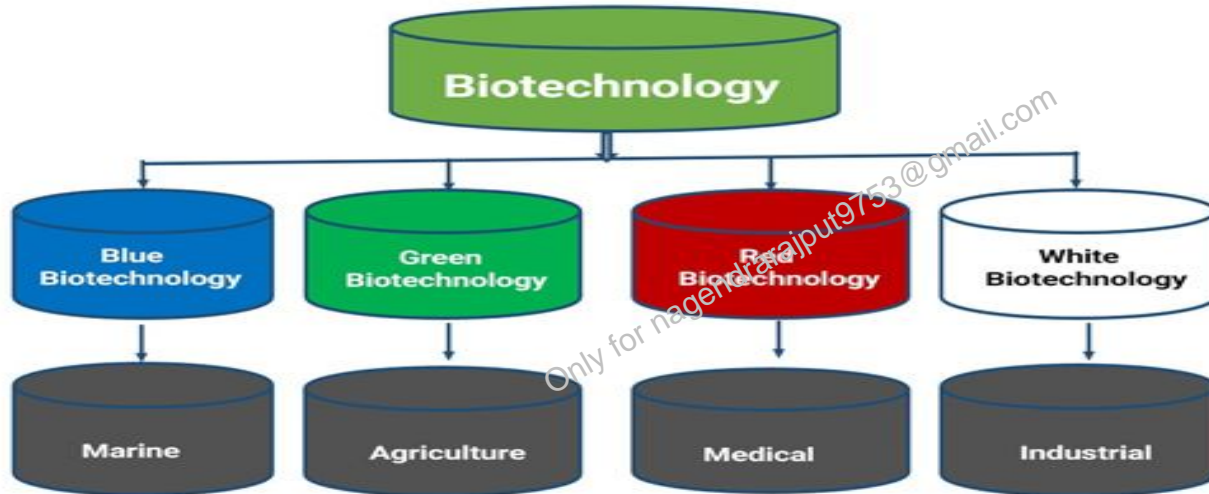
With reference to 'stem cells', frequently in the news, which of the following statements is/are correct?

1. Stem cells can be derived from mammals only.
2. Stem cells can be used for screening new drugs.
3. Stem cells can be used for medical therapies.

Select the correct answer using the codes given below :

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

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Consider the following statements :

1. Genetic changes can be introduced in the cells that produce eggs or sperms of a prospective parent.
2. A person's genome can be edited before birth at the early embryonic stage.
3. Human induced pluripotent stem cells can be injected into the embryo of a pig.

Which of the statements given above is/are correct ?

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



Laws, Acts, and Procedures governing genome editing in India



**Biological
Diversity Act,
2006**



**Drugs and
Cosmetic Act
1947**



Seed Act, 1968



**Protection of
Plant Varieties
and Farmers
Rights (PPVFR),
2009**



**Food Safety and
Standards Act,
2006**



**Disaster
Management
Act, 2005**



जैवप्रौद्योगिकी विभाग
DEPARTMENT OF
BIOTECHNOLOGY

Department of Biotechnology



About: An attached office of Ministry of Science and Technology and is nodal agency supporting research in Life Sciences and promotes large scale use of biotechnology.



Mandate: Support R&D and manufacturing in Biology

- ➡ Promote University and Industry Interaction
- ➡ Evolve Bio Safety Guidelines, manufacture and application of cell based vaccines



Other Key Information: Announced First National Biotechnology Development Strategy in 2007, National Biotechnology Development Strategy 2015-2020, National Biotechnology Development Strategy 2021-2025.

