

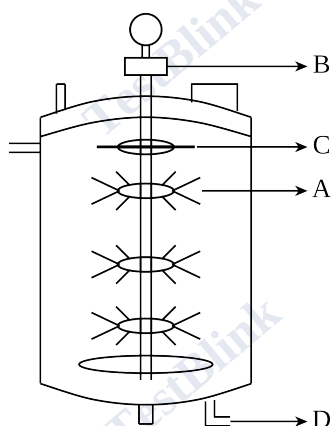
NEET BIOTECHNOLOGY: PRINCIPLES AND PROCESSES — INSERTION OF RDNA INTO HOST, OBTAINING THE FOREIGN GENE PRODUCT (BIOREACTORS) — PYQS

Max. Marks: 40
Questions: 10

Section A (MCQ) — 10 questions

Q.1 Identify the part of a bio-reactor which is used as a foam breaker from the given figure.

[NEET (UG) 2025]



- (1) D (2) C (3) A (4) B

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Q.2 Which of the following statements is incorrect?

[NEET (UG) 2024]

- (1) A bio-reactor provides optimal growth conditions for achieving the desired product
- (2) Most commonly used bio-reactors are of stirring type
- (3) Bio-reactors are used to produce small scale bacterial cultures
- (4) Bio-reactors have an agitator system, an oxygen delivery system and foam control system

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Q.3 In gene gun method used to introduce alien DNA into host cells, microparticles of _____ metal are used.

[NEET (UG) 2023]

- | | |
|------------|----------------------|
| (1) Zinc | (2) Tungsten or gold |
| (3) Silver | (4) Copper |

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Q.4 Which of the following methods is not commonly used for introducing foreign DNA into the plant cell?

[NEET (UG) 2022 (Phase 2)]

- (1) Bacteriophages
- (2) *Agrobacterium* mediated transformation
- (3) Gene gun
- (4) 'Disarmed pathogen' vectors

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Q.5 Which one of the following equipments is essentially required for growing microbes on a large scale, for industrial production of enzymes?

[NEET (UG) 2019]

- | | |
|---------------------|---------------------|
| (1) Industrial oven | (2) Bioreactor |
| (3) BOD incubator | (4) Sludge digester |

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Q.6 Stirred-tank bioreactors have been designed for -

[NEET 2016 (Phase 2)]

- (1) ensuring anaerobic conditions in the culture vessel
- (2) addition of preservatives to the product
- (3) purification of product
- (4) availability of oxygen throughout the process

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Q.7 Biolistics (gene-gun) is suitable for

[AIPMT 2012 (Mains)]

- (1) DNA finger printing
- (2) Constructing recombinant DNA by joining with vectors
- (3) Disarming pathogen vectors
- (4) Transformation of plant cells

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Q.8 For transformation, microparticles coated with DNA to be bombarded with gene gun are made up of

[AIPMT 2012 (Prelims)]

- | | |
|------------------------|-------------------------|
| (1) Gold or tungsten | (2) Platinum or zinc |
| (3) Silver or platinum | (4) Silicon or platinum |

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Q.9 Stirred-tank bioreactors have been designed for –

[AIPMT 2010 (Prelims)]

- (1) Purification of the product
- (2) Availability of oxygen throughout the process
- (3) Ensuring anaerobic conditions in the culture vessel
- (4) Addition of preservatives to the product

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Q.10 Polyethylene glycol method is used for:

[AIPMT 2009]

- (1) Biodiesel production
- (2) Seedless fruit production
- (3) Energy production from sewage
- (4) Gene transfer without a vector

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ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	
Ans.	2	3	2	1	2	4	4	1	2	4	