

# Biogen Specific Teaching Material

## Introduction to USP – Critical Biotech Parameters



# Questions & Answers

# Introduction to USP – Critical Biotech Parameters

1. Name the four (4) types of bioprocesses.

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1. The four types of bioprocesses are aerobic, anærobic, microaerophilic and facultative anærobic.

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2. Which levels of pH is required for animal cells to grow?

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2. pH for animal cell growth is between 7.2 and 7.4.

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3. Which function of a bioreactor is explicitly required?

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3. Containment is required in all cases in a bioreactor.

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4. What types of cells need oxygen to grow and metabolise?

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4. Aerobic cells need oxygen for growth and metabolism.

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5. What are the two types of pressure in a bioreactor?

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5. Atmospheric pressure and osmotic pressure are the two types of pressure in a bioreactor.

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6. Osmotic pressure in a bioreactor prevents osmosis from occurring during separation. (true or false?)

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6. True. Osmotic pressure in a bioreactor prevents osmosis from occurring during separation.

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7. The Pasteur effect involves adding which biological element?

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7. The Pasteur effect involves adding oxygen so that fermentation does not begin.

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8. Types of bacterial cells which can grow either aerobically or an aerobically are called what?

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8. They are called facultative anærobies.

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9. What element must be removed for the cultivation of anærobic organisms?

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9. For anærobic organisms to survive, the culture(s) must be devoid of oxygen.

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10. Which type of cells can grow in the complete absence of oxygen?

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10. Anærobic cells can grow in the complete absence of oxygen.

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11. Through which process is oxygen supplied to a culture?

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11. Oxygen is supplied to a culture via aeration.

# Thank you for your attention!

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