

Serial Number	Type of Question	Question	Mapping to (University - Year)	Bloom's Taxonomy
1	15 Marks	Discuss in detail the definition of ultrasound therapy, its bio-physical principles, and how properties like reflection, transmission, and absorption influence its therapeutic application in physiotherapy.	TNMGRMU - 2018	Analyze
2	15 Marks	Elaborate on the indications and contraindications of ultrasound therapy, providing clinical examples for each, and explain the role of bio-physics in determining safe usage.	Manipal - 2020	Apply
3	15 Marks	Critically analyze the properties of ultrasound (reflection, transmission, absorption) and their impact on tissue penetration and heating effects in therapeutic contexts.	AIIMS - 2019	Analyze
4	15 Marks	Define ultrasound therapy and describe its bio-physical mechanisms, including how absorption leads to biological effects, with reference to indications for musculoskeletal disorders.	JIPMER - 2021	Understand
5	15 Marks	Evaluate the contraindications of ultrasound therapy in patients with implants or malignancies, linking to the properties of reflection and transmission.	TNMGRMU - 2022	Evaluate
6	15 Marks	Explain the bio-physics of ultrasound generation and propagation, and create a treatment protocol for a soft tissue injury considering absorption and indications.	Manipal - 2017	Create
7	15 Marks	Compare and contrast the indications versus contraindications of ultrasound therapy, supported by bio-physical evidence on transmission and reflection.	AIIMS - 2023	Analyze
8	15 Marks	Discuss the definition and properties of ultrasound, focusing on how absorption contributes to therapeutic outcomes while outlining key contraindications.	JIPMER - 2016	Understand
9	15 Marks	Apply the principles of ultrasound bio-physics to justify its use in chronic inflammation, including detailed analysis of reflection at tissue interfaces.	TNMGRMU - 2015	Apply

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10	15 Marks	Evaluate the safety profile of ultrasound therapy by examining its properties (absorption, transmission, reflection) and listing all major indications and contraindications.	Manipal - 2019	Evaluate
11	5 Marks	Define ultrasound therapy and briefly explain its primary bio-physical principle.	AIIMS - 2020	Remember
12	5 Marks	List five indications and three contraindications for ultrasound therapy in physiotherapy.	JIPMER - 2018	Remember
13	5 Marks	Describe the property of absorption in ultrasound and its therapeutic significance.	TNMGRMU - 2021	Understand
14	5 Marks	Explain how reflection occurs in ultrasound therapy and its implications for treatment.	Manipal - 2022	Understand
15	5 Marks	Outline the bio-physics of ultrasound transmission through different tissues.	AIIMS - 2017	Understand
16	5 Marks	Apply the contraindications of ultrasound to a scenario involving a patient with a pacemaker.	JIPMER - 2019	Apply
17	5 Marks	Analyze why ultrasound is indicated for scar tissue management based on its properties.	TNMGRMU - 2016	Analyze
18	5 Marks	Differentiate between reflection and absorption in ultrasound properties.	Manipal - 2023	Analyze
19	5 Marks	Evaluate the role of transmission in determining ultrasound dosage for deep tissues.	AIIMS - 2015	Evaluate
20	5 Marks	Create a brief checklist for checking contraindications before applying ultrasound therapy.	JIPMER - 2020	Create
21	2 Marks	Define ultrasound therapy.	TNMGRMU - 2019	Remember
22	2 Marks	What is the bio-physical basis of ultrasound?	Manipal - 2018	Remember
23	2 Marks	Name two indications for ultrasound therapy.	AIIMS - 2021	Remember
24	2 Marks	List two contraindications of ultrasound.	JIPMER - 2022	Remember

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25	2 Marks	What is reflection in ultrasound properties?	TNMGRMU - 2017	Remember
26	2 Marks	Define transmission in the context of ultrasound.	Manipal - 2016	Remember
27	2 Marks	What does absorption refer to in ultrasound therapy?	AIIMS - 2018	Remember
28	2 Marks	State one clinical indication linked to ultrasound absorption.	JIPMER - 2015	Understand
29	2 Marks	Why is ultrasound contraindicated over eyes?	TNMGRMU - 2020	Understand
30	2 Marks	Briefly explain the piezoelectric effect in ultrasound bio-physics.	Manipal - 2021	Understand