

Lesson 4 Worksheet

In the framework of your educational journey, this worksheet serves as a pivotal touchstone for Lesson 4, a lesson committed to further advancing your knowledge and understanding in Biomedical Engineering. The worksheet employs a variety of questioning techniques such as multiple-choice questions, fill-in-the-blank exercises, and short answer responses to provide a comprehensive review of the material covered.

Recommended Grade Levels: 6-8

Multiple Choice Questions

- 1) What is MRI an acronym for?
- a) Magnetic Resonance Insight
- b) Magnetic Resonance Imaging
- c) Magnetic Resonance Invention
- d) Magnetic Resonance Indicator
- 2) How does MRI technology produce detailed images of internal body structures?
- a) X-ray beams
- b) Radio waves and a magnetic field
- c) Ultrasound waves
- d) Gamma rays
- 3) What new advancement is improving the MRI experience for patients?
- a) Shorter time inside the MRI machine
- b) Increased radiation exposure
- c) Reduced image quality
- d) All of the above

- 4) What is personalized medicine compared to in the text?
- a) A one-size-fits-all suit
- b) A tailor-made suit
- c) Someone else's glasses
- d) A generic pair of glasses
- 5) What advanced technology is revolutionizing biomedical engineering?
- a) Quantum computing
- b) Blockchain
- c) Virtual Reality (VR)
- d) Artificial Intelligence (AI)
- 6) What does Intuitive's Ion assist doctors with?
- a) Liver biopsy
- b) Gastroscopy
- c) Bronchoscopy
- d) Colonoscopy
- 7) What role does MRI play in the diagnosis of neurological disorders?
- a) It does not contribute to diagnosis.
- b) It offers a roadmap of brain pathways.
- c) It only detects tumors.
- d) It provides a visual representation of pain.

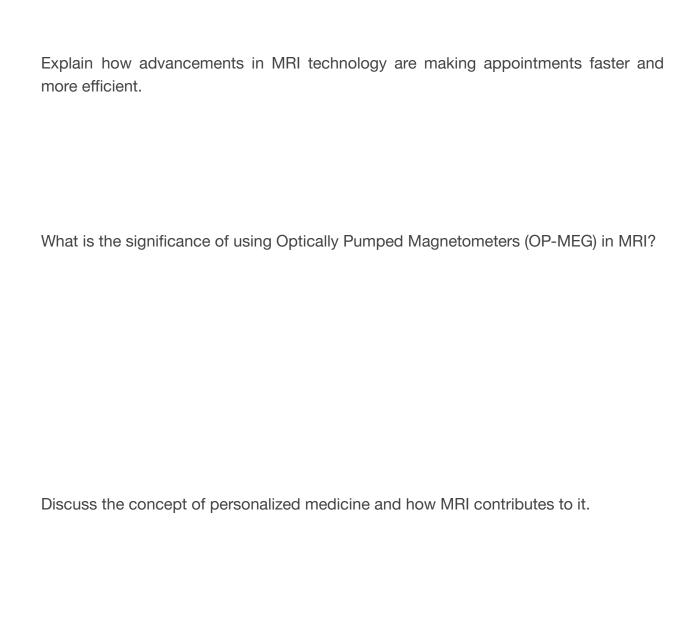
- 8) How are minimally invasive interventions compared to traditional methods?
- a) More painful
- b) Like fixing a watch with precise tools
- c) Like breaking a watch open
- d) More prone to complications

Fill-in-the-Blank Questions

1.	MRI's non-invasive technology allows for safer		
2.	Fonar's UPRIGHT® Multi-Position™ MRI allows patients to be scanned in		
	different		
3.	Fraditional MRI scanners might remind you of fitting into a		
4.	The patient in the case study was diagnosed with		based on
	special amyloid imaging.		
5.	MRI assists doctors in performing procedures that are so exact they can be		
	compared to hitting the	n archery.	



Short Answer Questions





Multiple Choice & Fill in The Blank Answer KEY

Multiple Choice KEY

- 1) B
- 2) B
- 3) A
- 4) B
- 5) D
- 6) C
- 7) B
- 8) B

Fill in The Blank KEY

- 1) Diagnosis OR Imaging
- 2) Positions OR Postures
- 3) Coffin OR Tube
- 4) Alzheimer's Disease
- 5) Bullseye