



# bic

biomedical imaging center

University of Texas at Austin  
Biomedical Imaging Center  
Level 2 User Certification Written Exam

Date: \_\_\_\_\_  
Last Name: \_\_\_\_\_  
First Name: \_\_\_\_\_  
UT EID: \_\_\_\_\_  
E-mail address: \_\_\_\_\_  
Advisor/Mentor: \_\_\_\_\_  
Exam Proctor: \_\_\_\_\_

Successful completion of this written exam is partial fulfillment of the requirements to obtain Level 2 User certification in the Imaging Research Center. If every question is not answered correctly, you must complete a follow up form for each incorrect answer before your exam can be considered successfully completed. The follow up form will be provided when grading is completed. Good luck.

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What phone number should you dial to request emergency medical assistance while conducting an MRI study in the IRC?

- 9 (to get an outside line), then 911
  - 1-4441 (UTPD, on campus number)
  - 9 (to get an outside line), then 471-4441
  - 911
  - 2-4203 (BIC Front Desk)
- 

When is the MR magnet routinely shut off?

- During cryogen fills, for safety
  - During system maintenance
  - Never
  - Nightly, to conserve energy
  - When subjects are in the room
- 

Why should the scanner room door remained closed during scans?

- To prevent stray RF noise from causing artifacts
  - To prevent **anyone** from getting too close to the magnet during a scan
  - To prevent the **imaging** gradients from drawing ferromagnetic objects into the room
  - All of these
  - None of these
- 

What should you do when a subject squeezes the alert ball?

- Obtain emergency medical assistance
- Depress the quench button
- Stop the scan, and ask the subject how they are doing
- Finish the current scan
- Depress the EPO button

If a subject suffers from a cardiac arrest during a scan (on the table), the emergency medical personnel that respond to your call for help should be instructed:

- To remove the subject from the scanner and give care in the room, on the gurney
  - To remove the subject from the scanner and give care outside the room, on the floor
  - To not enter the magnet room
  - To fill out a screening sheet before entering the control room
  - None of these
- 

An emergency quench button is located:

- On the control keyboard
  - On the face of the magnet
  - On the wall, on the right when you enter the magnet room
  - On the wall, on the left when you enter the magnet room
  - On the wall, on the left when you enter the MRI equipment room
- 

You should depress the emergency quench button:

- If a carpenter's hammer is stuck to the face of the magnet
  - If a person is pinned against the magnet by a gas cylinder
  - If there is a fire in the control room
  - All of the above
  - None of the above
- 

You should depress the EPO button:

- The subject squeezes the alert ball.
  - If you observe sparks on the front panel of the magnet
  - If you need to stop a scan to correct the scan parameter, TR
  - The second and third answers
  - All of these
- 

Which of the following conditions **ALWAYS** precludes a subject from participation in an MRI brain study in the BIC at UT for safety reasons?

- |   |   |
|---|---|
| <input type="checkbox"/> Presence of a tattoo on their neck | <input type="checkbox"/> Ear Rings                      |
| <input type="checkbox"/> Surgical steel pins in knee        | <input type="checkbox"/> Cochlear implant               |
| <input type="checkbox"/> Previous surgery                   | <input type="checkbox"/> Orthodontic appliance (braces) |
| <input type="checkbox"/> Aneurysm clips                     | <input type="checkbox"/> Finger nail polish             |
| <input type="checkbox"/> Pacemaker                          | <input type="checkbox"/> Deafness                       |
| <input type="checkbox"/> Blindness                          | <input type="checkbox"/> Contact lenses                 |

Which people are required to fill out a subject screening form before participating as a scan subject in a fMRI study?

- |  |   |
|--|---|
| <input type="checkbox"/> UT students           | <input type="checkbox"/> Other college students                         |
| <input type="checkbox"/> UT faculty            | <input type="checkbox"/> Other college faculty                          |
| <input type="checkbox"/> UT staff              | <input type="checkbox"/> Other college staff                            |
| <input type="checkbox"/> "civilian" volunteers | <input type="checkbox"/> Clinical patients enrolled in a research study |
| <input type="checkbox"/> None of these         | <input type="checkbox"/> All of these                                   |
- 

Which people are exempt from the requirement to fill out a subject screening form before participating as a scan subject in a fMRI study?

- |  |  |
|--|--|
| <input type="checkbox"/> The PI of the study | <input type="checkbox"/> An RA for the study                     |
| <input type="checkbox"/> The safety officer  | <input type="checkbox"/> The BIC Medical Director                |
| <input type="checkbox"/> An MR technologist  | <input type="checkbox"/> Graduate students in the PI's group/lab |
| <input type="checkbox"/> None of these       | <input type="checkbox"/> All of these                            |
-



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This form must be completed for every question incorrectly answered on the Level 2 User Certification Written Exam in order for you to pass the exam.

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Which question did you answer incorrectly?

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Describe why you thought your answer was correct.

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Explain what the correct answer is, and why it is most appropriate.

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