BODY WORLDS 3 (2008) EXHIBIT:

First floor:
Entry way – Ethical review Statement
Your comments on the ethical issues surrounding such an exhibit (you may want to answer this after you have seen the entire exhibit):
__________________________________________________
__________________________________________________
__________________________________________________
__________________________________________________
__________________________________________________

Exhibits and posters
1. What is the first functioning organ to develop after conception? __________________
2. How much length are all the blood vessels collectively? ________________________

1st display case
3. Cross section of bone: What are the 2 types of bone tissue?
   a) ________________________   b) _________________________
   c) How much of the blood output do the bones receive? __________%

2nd display case (#203 & #215)
4. What are the smallest bones of the body?
   _________________________ , _________________________, and _________________________

Praying Skeleton
Note: The skeleton’s right thoracic cavity viewed from internally. You can see the thoracic pleural membranes.

3rd display case
5. What nerve is responsible for the “funny bone” sensation? ________________
6. (#230) Provide the numbers being asked for in the table.

<table>
<thead>
<tr>
<th></th>
<th>Foot with joints/ligaments</th>
<th>Hand</th>
</tr>
</thead>
<tbody>
<tr>
<td># of bones</td>
<td></td>
<td></td>
</tr>
<tr>
<td># of muscles</td>
<td></td>
<td></td>
</tr>
<tr>
<td># of ligaments</td>
<td></td>
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</tbody>
</table>

4th display case (#209)
Note: the frontal slices of the hand
Note: the osteoporosis in the knee

Free standing skeleton (#201)
7. How many moveable joints are in the body? ________________

8. Red blood cells wear out in 120 days. How many new ones enter/minute? ________

Extreme heart poster
9. How is Lance Armstrong’s heart different than for most normal people?

10. How do normal people versus athletes differ in their oxygen needs?

Move like you mean it Poster
11. Lack of exercise leads to what types of complications? ______________________

Star Warrior (#690)
12. What is our largest and heaviest organ? ______________________

13. (#208) Compare and contrast the normal versus the osteo-arthritic joints.
Scoliosis (#212)
14. What is scoliosis? How does this change the spinal column? What affect might this have on the internal organs?
____________________________________________________________________
____________________________________________________________________

Note: The arterial configuration of the heart and brain

Nervous system (#255)
15. How fast do the signals travel in the nervous system? _____________________

16. How much surface area is covered by the cerebral cortex cover? ____________

17. (#261) What does the brainstem control? _________________________________

Dying of a Broken Heart Poster
18. Name some of the symptoms of a broken heart. ___________________________
____________________________________________________________________

19. (#263) Compare the 2 characteristics of the brain:
   a) What percentage of the body weight comes from the brain? ______________
   b) What percentage of the blood supply is utilized by the brain? ______________

   Note: #323 Lungs blood supply

   Note: #309 Epiglottis and diaphragm

Lungs of a smoker (#304)
20. a) How much fluid is formed annually in the lungs after smoking 20 cigarettes/day? _________

   b) How much can this habit shorten one’s life? ______________________________

Torchbearer: Organs
21. How much blood flow is used by the muscles when at rest? _____; at work? _____

Figure skating
22. a) How many breaths are taken per day?

   b) How many pints of air per minute normally? _______; in an athlete? _________
3rd Floor displays
Reproductive system
23. What organ exists only during the time of pregnancy? ____________________

24. What are two possible ways that twins may result?
   
a) ____________________
   
b) ____________________

The walker (#693) Note: the sphenoid bone anterior to the sagittal brain sections.

Cardiovascular System

Note: Video on the heartbeat

Hole in heart (#360)
25. a) What is the medical name of this condition? ______________________________
   
   b) How do doctors close such a hole? ______________________________

(#355) What 2 tools shown can be used to treat a blockage in the heart?
26. a) ____________________
   
b) ____________________

Arterial configuration of the head
Note: side view to see the vertebral arteries passing through the cervical vertebrae.

Smoker’s leg (#372)
27. a) What causes smoker’s leg? ______________________________
   
   b) What disease state affects the tissue? ______________________________

Arteriosclerosis (#373) Note: Compare normal to arteriosclerosis condition.
Small intestine (#431)
28. Where does the blood supply go from the small intestine? _____________________

Emerging skeleton (#649)
29. How many deaths in the US are estimated by the American Heart Association due to heart disease?

Liver (#407)
30. a) How is the liver affected by cirrhosis? _________________________________

b) How is the liver change by metastasis? _________________________________

Obesity display
31. a) How did this man die? ____________________________________________

   b) What chronic diseases result from obesity? _____________________________

   _____________________________________________________________________

Kidney (#460)
32. What is a horseshoe kidney? _____________________________________________

33. Other comments:
What was your impression of the exhibit overall?
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________
_____________________________________________________________________