

# **NEUROSCIENCE MSc EXAMINATION**

**For Students of the  
INSTITUTE OF PSYCHIATRY  
King's College London**

**9<sup>th</sup> March 2012 10:00 - 12:30**

## **PAPER B5 Neuroimaging**

### **Answer FOUR questions only**

1. Describe the best way of combining the results from many structural MRI studies in Major Depressive Disorder. What are the main findings from structural MRI studies in Major Depressive Disorder?
2. What issues need to be borne in mind when applying MRI to patients with temporal lobe epilepsy?
3. How could you ascertain whether a drug given to a subject as part of an fMRI experiment has a global effect on the brain?
4. How has PET helped our understanding of schizophrenia?
5. Describe the safety issues involved in the MRI scanning of newborns.
6. How has neuroimaging improved our knowledge of neuroanatomy?
7. Describe the intrinsic MRI tissue parameters that influence the appearance of structural magnetic resonance images of the brain, and how these interact with the MRI scanning parameters
8. Why would companies use neuromarketing? Give two examples of neuromarketing studies and their results.