

KING'S COLLEGE LONDON
INSTITUTE OF PSYCHIATRY
MSc NEUROSCIENCE EXAMINATION
12th March 2014 at 14.00-16.30pm
Cognitive Neuroscience
B7 WRITTEN EXAMINATION

Answer FOUR questions only

1. Which brain areas mediate cognitive control? Discuss the evidence for their involvement.
2. Discuss the relationship between attention and consciousness. What are the conceptual and empirical difficulties in differentiating the neural networks of attention and consciousness?
3. Identify the brain regions and neural networks potentially involved in processing syntactically complex speech and discuss the evidence for their involvement.
4. What is working memory and which brain areas are associated with its sub-components (as in Baddeley and Hitch model)?
5. Which cognitive tasks show the strongest sex differences? Do men and women show differential brain activity while performing these tasks?
6. Describe the main methods for investigating genetic effects on cognitive and brain functions. Critically evaluate selected findings obtained using each of the methods.
7. Define cognitive psychopharmacology and provide two examples from neuroscience where it has had a significant impact.
8. Which neural abnormalities are associated with abnormal facial emotion processing in depression or bipolar disorder? Support your answer with relevant findings.