Essay Title: *Outline and evaluate the biological approach in psychology. (16 marks)*

The biological approach assumes that all human behaviour has a biological origin. This approach insists that to fully comprehend human behaviour, it is necessary to understand internal biological structures and processes such as genes, the nervous system, and neurochemistry.

An excellent introduction setting the scene for this essay.

Geneticists working within this approach have found evidence that some behavioural characteristics, such as intelligence or mental illness, can be inherited in a similar way to physical characteristics, such as eye colour. A large amount of research in this area has used Monozygotic (MZ) twins because they share 100% of their DNA. For example, recent research has found that MZ twins have an increased concordance rate of developing schizophrenia compared to Dizygotic twins. This is important to understanding the genetic component of mental illness and demonstrates the impact of genes on certain behaviours.

A well-detailed explanation of genetic factors. Reference to a specific study would add clarity to this section.

The influence of neurochemistry is also explored in the biological approach. Research in this realm helps us understand the role of neurotransmitters. For example, recent research suggests that abnormally low levels of serotonin are linked to aggressive behaviour, indicating that this neurotransmitter is important in regulating behaviour and impulse control (Crockett et al., 2008).

A well-detailed explanation of neurochemistry with reference to research.

One weakness of the biological approach is that causation is often strongly implied in explanations that focus on brain structures. For example, one explanation of schizophrenia suggests that a lack of activity in the ventral striatum is linked to the development of negative symptoms such as avolition. This is a problem for biological explanations because such research tells us only that there is an association between brain structures and behaviour; it cannot tell us that the reduced activity in that area of the brain causes the behaviour, or that the behaviour causes lower activity in that part of the brain. Therefore, it is critically important to remember that biological explanations are often based on correlational results, which does not mean that one event causes the other.

An excellent evaluation point which provides a well-detailed limitation of the biological approach.

However, the biological approach is also known for using more reliable methods of research. For example, some research into genetics and neurochemistry requires precise scientific methodology, such as fMRIs, PET scans, drug trials, and EEGs. These techniques provide psychologists with an accurate measure of internal processes that previously were not accessible. This makes biological evidence less susceptible to misinterpretation or experimenter bias which is a strength of such research.

An interesting strength of the biological approach is presented, making reference to specific biological techniques.

The second weakness of this approach is that many biological explanations of human behaviour may be considered deterministic. For example, another assumption of the biological approach is that some human behaviours are the result of evolution: they maximise our chances of survival and reproduction, and thus are 'naturally selected' and inherited from our ancestors. Such evolutionary claims are used to explain a variety of gender differences in human behaviour including sexual selection, aggression, and stress. Such explanations imply that humans have little control over their behaviour, and suggest we are predetermined to act in a certain way regardless of experience, free will, or the environment. This is problematic for those who do not follow 'typical' or 'expected' behaviours and overemphasises the role of nature on behaviour. It is also an explanation that is unfalsifiable, and thus incapable of scientific validation.

An interesting discussion of determinism is presented with well-detailed examples. Further development of the term unfalsifiable would have demonstrated further understanding in this section.

A final advantage of the biological approach is that it has many real-world applications: Drug therapies have been developed for many mental illnesses based on research into neurotransmitters; antidepressants work to increase serotonin levels in the brain, based on the understanding of how low levels of serotonin contribute to depressive symptoms. Understanding 'abnormal' neurochemical activity in the brain has not only been helpful for developing treatments but has also provided patients with an explanation that their illness is not their fault.

A final strength drawing on real-world applications is presented effectively.

[602 Words]

Examiner style comments: ***Mark Band 4***

This is a highly detailed and accurate essay examining the biological approach. The use of specialist terminology, including key issues and debates, is impressive, and the evaluation was focused, thorough and effective. Overall, an impressive account of the biological approach.