

Psychology

IB HL — Question Bank

Q1.

Example: SSRIs and depression

Selective serotonin reuptake inhibitors (SSRIs) such as fluoxetine (Prozac) act as **reuptake inhibitors** by blocking the serotonin transporter (SERT), preventing serotonin from being taken back into the presynaptic neuron. This increases serotonin concentration in the synaptic cleft, prolonging its effect on postsynaptic receptors.

Note: SSRIs are **not** agonists. An agonist binds directly to a receptor and activates it. SSRIs work indirectly — they do not bind to serotonin receptors; they block the reuptake transporter, leaving more serotonin available in the cleft.

This is the pharmacological basis for treating major depressive disorder with the biological approach. However, critics note that the “chemical imbalance” explanation of depression is an oversimplification — the etiology is multifactorial.

Q2.

Model SAQ plan — “Describe one study related to cognitive processing” (9 marks):

1. Identify the study: Loftus & Palmer (1974).
2. Aim: to investigate whether leading questions alter eyewitness memory of a car accident.
3. Method: participants watched a film of a car accident; one group asked “how fast were the cars going when they smashed into each other?” other group “when they hit each other?” One week later, asked if they saw broken glass (there was none).
4. Findings: “smashed” group estimated higher speed (40.8 mph vs approx. 31.8 mph for “contacted”); 32% of “smashed” group reported broken glass vs 14% (“hit”) and 12% (control).
5. Conclusion: post-event leading questions can alter memory — the misinformation effect.
6. Link: this demonstrates that cognitive processing of memory is reconstructive and vulnerable to distortion — consistent with schema theory (Bartlett, 1932).

Q3.

Model SAQ plan — “Describe one study related to conformity” (9 marks):

1. Identify the study: Asch (1951).
2. Aim: to investigate whether majority social pressure could cause individuals to conform to an obviously incorrect answer.
3. Method: 123 male American college students placed in a group of confederates; standard line compared to three comparison lines; confederates gave unanimously wrong answers on 12 of 18 trials; real participant answered last.
4. Findings: 75% of participants conformed at least once; 37% of all critical trial responses were conforming (incorrect); only 25% never conformed.
5. Conclusion: the majority exerts powerful pressure to conform even when the answer is objectively obvious — normative social influence can override accurate perception.
6. Link: this demonstrates sociocultural influence on behaviour — specifically, that group membership and the desire for social acceptance (normative social influence) shape individual judgement and behaviour.

Q4.

Model SAQ plan — “Explain one etiology of depression” (9 marks):

1. Identify the level and theory: Sociocultural etiology — Brown and Harris’s vulnerability model.
2. Define: The sociocultural approach explains depression through social vulnerability factors that amplify the impact of stressful life events.
3. Study — Brown and Harris (1978):
 - Aim: investigate how social factors and vulnerability contribute to depression onset.
 - Method: community survey of 539 working-class women in London; structured interviews assessing life events, depression, and four vulnerability factors.
 - Findings: women with severe life events AND vulnerability factors had depression onset rates of ~79%; women without vulnerability factors had much lower rates despite similar life events.
 - Conclusion: social vulnerability factors remove protective resources, making individuals more susceptible to the depressogenic effects of stressful life events.
4. Link: this supports a sociocultural etiology because it shows that depression is not simply caused by individual biology or cognition but by the interaction between social circumstances (vulnerability factors) and life events — placing the cause of depression partly outside the individual.

Q5.

Template:

1. Define the term (1-2 sentences)

“X refers to...”

2. Describe one study (supporting evidence)

- Researcher(s) and year
- Aim of the study
- Procedure (brief — 2-3 sentences)
- Findings
- Conclusion

3. Link to the question

“This study demonstrates [concept from question] because...”

Q6.

Sample Answer Structure:

Define:

“Neurotransmission refers to the chemical communication between neurons via neurotransmitters, which influence behaviour, mood, and cognition.”

Study:

“Antonova et al. (2011) investigated the role of acetylcholine (ACh) in spatial memory. Participants were injected with either scopolamine (an ACh antagonist that blocks ACh receptors) or a placebo, then completed a virtual maze task (the Arena task). Those who received scopolamine performed significantly worse on spatial memory tasks than the control group, demonstrating reduced hippocampal activity via fMRI scans.”

Link:

“This study shows that blocking acetylcholine neurotransmission impairs spatial memory, demonstrating a direct causal effect of neurotransmission on behaviour.”

Word count: ~105 words (can expand procedure/findings to reach ~220)

Q7.

Sample Answer Structure:

Define:

“Informed consent is the ethical requirement that participants must understand the nature, risks, and purpose of a study before agreeing to participate.”

Study:

“Milgram’s (1963) obedience study involved deception — participants believed they were administering real electric shocks to a ‘learner,’ when in fact the shocks were fake. Participants were not fully informed of the true nature of the study (investigating obedience to authority, not memory and learning as they were told). This violated the principle of informed consent.”

Link:

“Milgram’s study demonstrates the ethical tension between informed consent and the need for deception in certain psychological research. While the study produced important findings about obedience, it raised serious ethical concerns about participants’ right to know what they were participating in.”

Q8.**Template:****1. Introduction** (50-80 words)

- Define key terms
- State your thesis/argument (what position will you take?)
- Outline the structure of your essay

2. Body Paragraph 1 (250-300 words)

- **Study 1:** Name, aim, procedure, findings, conclusion
- **Evaluation:** Strengths and limitations (methodological or ethical)
- **Link:** How does this support or challenge the question?

3. Body Paragraph 2 (250-300 words)

- **Study 2:** Name, aim, procedure, findings, conclusion
- **Evaluation:** Strengths and limitations
- **Link:** How does this support or challenge the question?
- **Counterpoint** (optional but recommended): Acknowledge alternative explanations or conflicting evidence

4. Body Paragraph 3 (optional, 200-250 words)

- **Study 3 or counterargument:** Either a third study OR a critique of the first two studies (e.g., cultural bias, ethical concerns, reductionism)

5. Conclusion (50-80 words)

- Restate your thesis
- Summarize the balance of evidence
- Answer the question directly (especially important for “To what extent...” questions)

Q9.**Sample Answer Structure:****Introduction:**

“Research methods such as experiments, case studies, and brain imaging techniques are used to investigate the relationship between the brain and behaviour. This essay will evaluate the use of **fMRI (functional magnetic resonance imaging)** as a research

method, focusing on its strengths and limitations. fMRI measures blood oxygen levels (BOLD signal) as a proxy for neural activity. While fMRI provides valuable insights into brain localization and function, it has methodological limitations including poor temporal resolution and lack of ecological validity.”

Body Paragraph 1: Study Supporting fMRI

”Maguire et al. (2000) used structural MRI to investigate whether experience shapes the brain. Researchers scanned the brains of London taxi drivers (who must memorize 25,000 streets for ‘The Knowledge’ exam) and compared them to age-matched controls. They found that taxi drivers had a significantly larger posterior hippocampus (involved in spatial memory) than controls, and this volume correlated with years of taxi driving. The study demonstrates **neuroplasticity** — the brain’s ability to change structure in response to experience.”

Evaluation:

“Strengths: High spatial resolution (can pinpoint the posterior hippocampus); non-invasive; objective measure. Limitations: Correlational design (cannot prove causation — perhaps people with larger hippocampi become taxi drivers); MRI is expensive; ecological validity concerns (brain activity in a scanner may not reflect real-world navigation).”

Link:

“This study shows that fMRI/MRI is valuable for identifying **brain localization** (which brain regions are involved in spatial memory), but it cannot establish causation.”

Body Paragraph 2: Study Demonstrating Limitations

”Antonova et al. (2011) used fMRI to measure hippocampal activity during a spatial memory task (the Arena task). Participants injected with scopolamine (an acetylcholine antagonist) showed reduced hippocampal activity and poorer spatial memory performance than controls. This study uses fMRI to demonstrate a **causal link** between neurotransmitter activity (acetylcholine) and behaviour (spatial memory).”

Evaluation:

“Strengths: Experimental design (scopolamine vs. placebo) allows causal conclusions; fMRI provides objective measure of brain activity. Limitations: Poor temporal resolution (fMRI measures blood flow, which peaks 4-6 seconds after neural activity, so it cannot capture fast cognitive processes); artificial lab setting reduces ecological validity; small sample size limits generalizability.”

Counterpoint:

“Critics argue that fMRI measures blood flow, not neural activity directly, so it is an indirect proxy. Additionally, the artificial lab environment (lying still in a loud scanner) does not reflect how the brain functions in real-world contexts.”

Conclusion:

“In conclusion, fMRI is a valuable research method for studying brain-behaviour relationships, particularly for identifying brain regions involved in specific cognitive

functions (localization). However, it has limitations including poor temporal resolution, high cost, and questionable ecological validity. The method is most useful when combined with other approaches (e.g., behavioral experiments, case studies) to triangulate findings.”

Word count: ~450 words (expand procedure/findings to reach ~800)

Q10.

Step-by-step strategy:

1. Read the stimulus carefully (10 minutes)

- Highlight or underline recurring patterns, emotional language, contradictions

2. Identify 2-3 themes (15 minutes)

- A **theme** is a recurring pattern of meaning (e.g., “loss of control,” “social stigma,” “coping through routine”)
- Support each theme with **direct quotes** from the stimulus

3. Evaluate the method (20 minutes)

- Identify the research method (interview, observation, case study)
- Strengths: Rich qualitative data, ecological validity, flexibility, in-depth understanding
- Limitations: Researcher bias, low generalizability, time-consuming, subjective interpretation

4. Answer all questions directly (15 minutes)

- Do not write general essays — answer the specific question asked
- Use **evidence from the stimulus** to support every claim