

Mark schemes

Q1.**[AO1 = 1]**

Answer: **C – Stressful conditions trigger the development of schizophrenia in people with an underlying predisposition.**

[1]**Q2.****[AO1 = 6 AO2 = 4 AO3 = 6]**

Level	Mark	Description
4	13-16	Knowledge of the family dysfunction explanation is accurate and generally well detailed. Application is effective. Discussion is thorough and effective. Minor detail and/or expansion of argument is sometimes lacking. The answer is clear, coherent and focused. Specialist terminology is used effectively.
3	9-12	Knowledge of the family dysfunction explanation is evident but there are occasional inaccuracies/omissions. Application/discussion is mostly effective. The answer is mostly clear and organised but occasionally lacks focus. Specialist terminology is used appropriately.
2	5-8	Limited knowledge of the family dysfunction explanation is present. Focus is mainly on description. Any discussion/application is of limited effectiveness. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.
1	1-4	Knowledge of the family dysfunction explanation is very limited. Discussion/application is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology is either absent or inappropriately used.
	0	No relevant content.

Possible content:

- general notion that hostility and difficulties in family communication cause stress and tension which leads the child to develop schizophrenia
- double-bind theory – (Bateson) parents of children with schizophrenia give out mixed messages, showing/wanting affection then pushing away. This contradiction between verbal and non-verbal messages results in a no-win situation for the child
- high expressed emotion – negative emotions are expressed towards the person with schizophrenia, eg verbal criticism/disapproval, hostility, emotional over-involvement causing stress for the sufferer
- schizophrenogenic mother – Fromm-Reichmann's psychodynamic notion of the schizophrenia-causing mother who is cold, rejecting and controlling.

Possible applications:

- Jade's parents give mixed messages (double bind) – caring but also criticising
- Jade's mother is reported to be cold (uncomfortable/unloved) suggesting schizophrenogenic behaviour
- Jade's parents watch her closely indicating control and over-involvement
- Jade's parents argue about how to treat her – negative communication within the family.

Possible discussion:

- evidence to support/contradict the dysfunction explanation(s), eg Bateson (1956) case study observations of double-bind communication; Nomura (2005) higher rate of relapse where families show high expressed emotion; Read (2005) many people with schizophrenia report difficult childhood relationships with family
- problems establishing cause and effect – the disordered behaviour of the child may cause family dysfunction rather than the other way round
- ethical implications of blaming the mother/family – nowadays it is not acceptable to blame every psychological problem on poor mothering/parenting
- applications, eg development of family therapy
- comparison with alternative biological explanations which are well-established and well-evidenced
- discussion in the light of broader debates, eg nature-nurture, determinism.

Credit other relevant material.

[16]

Q3.

[AO1 = 6 AO2 = 4 AO3 = 6]

Level	Marks	Description
4	13-16	Knowledge of one or more explanations for schizophrenia is accurate and generally well detailed. Application is effective. Discussion is thorough and effective. Minor detail and/or expansion of argument is sometimes lacking. The answer is clear, coherent and focused. Specialist terminology is used effectively.
3	9-12	Knowledge of one or more explanations for schizophrenia is evident but there are occasional inaccuracies/omissions. Application/discussion is mostly effective. The answer is mostly clear and organised but occasionally lacks focus. Specialist terminology is used appropriately.
2	5-8	Limited knowledge of one or more explanations for schizophrenia is present. Focus is mainly on description. Any application/discussion is of limited effectiveness. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.
1	1-4	Knowledge of one or more explanations for schizophrenia is very limited. Application/discussion is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology is

		either absent or inappropriately used.
	0	No relevant content.

Possible content:**Biological explanations:**

- genetic transmission/genes/DNA – twin studies, concordance, adoption/family studies, gene mapping, candidate genes (eg PCM1 and PPP3CC, interaction between genes NRG1 and NRG3/ERBB4), polygenic effect, relevant chromosomes, eg chromosome 5
- neurotransmitter explanation – dopamine hypothesis, D2 receptors, increased activity in the sub-cortex/ventral tegmental area, reduced dopamine activity in prefrontal area, low levels of dopamine activity in ventral striatum; reduced glutamate activity; raised serotonin in the basal ganglia
- other neural – enlarged ventricles, reduced grey matter, reduced activity in superior temporal gyrus, evidence for damaged brain regions.

Psychological explanations:

- impaired cognitive processing leading to inability to distinguish between own thoughts and external events
- impaired executive functioning and central control, problems in metacognition
- family dysfunction; high expressed emotion; schizophrenogenic mother; double-bind theory; schism and skew.

Possible application:

- Jay's father had mental health problems – suggests Jay might have inherited his condition from his father's side
- Jay's medication reduces symptoms – suggests his neurotransmitter levels/biological make-up as a factor
- Jay's mother worries about him a lot – suggests she might be showing high expressed emotion
- Jay's mother criticises him a lot – suggests double bind as she alternates between concern and irritation
- Jay's speech is confused and he switches from one thing to another – suggests impaired cognitive processing and poor executive functioning/central control.

Possible discussion:

- problems determining cause and effect – altered biology/disturbed family/disturbed cognitive processing may be an effect rather than a cause
- use of evidence to support/counter explanations and problems with evidence, eg twin studies, family research
- implications for treatments – biological explanations suggest drug treatments, family based explanations suggest family therapy
- comparison of different explanations
- determinism – biological/environmental determinism which could lead to negative attitudes and affect treatment expectations/outcomes
- reductionism – biological explanations are based on more traditionally objective research and might be assumed to have greater scientific worth
- discussion in relation to other debates, eg nature-nurture.

Credit other relevant material.

[16]

Q4.

[AO1 = 3 AO3 = 3]

Level	Marks	Description
3	5-6	Outline is clear, accurate and detailed. Limitation is appropriate and well outlined. Answer is organised and coherent. Specialist terminology is used effectively.
2	3-4	Outline is mostly clear but lacks detail in places. Limitation is appropriate but lacks detail. There is some appropriate use of specialist terminology. OR one aspect at L3 (maximum 3 marks).
1	1-2	Outline is limited/muddled. Limitation is limited/muddled. The answer lacks clarity and accuracy. Specialist terminology is either absent or inappropriately used. OR one aspect at L1/2.
	0	No relevant content.

Possible content:

- dysfunctional thinking/information processing/maladaptive thought explains symptoms of schizophrenia
- poor memory function in people with schizophrenia
- people with schizophrenia are poor at understanding their own thinking (metacognition) as distinct from environmental stimuli
- people with schizophrenia are poor at recognising their own output, eg their own drawings
- central control deficits may explain disordered thinking and language deficits, eg lack of fluency, word salads etc.

Possible limitations:

- does not explain the underlying cause which is probably biological, only explains some aspects of how people with schizophrenia think
- does not address the underlying cause, so any therapeutic attempts based on the cognitive explanation might just deal with some symptoms
- not so good at explaining negative symptoms, can explain certain symptoms, eg delusions, hallucinations better than others
- reductionist – explaining a complex disorder at the level of individual cognitive symptoms.

Credit other relevant material and limitations.

[6]

Q5.**[AO3 = 6]**

Level	Mark	Description
3	5-6	Evaluation of one psychological explanation for schizophrenia is detailed and effective. The answer is clear and coherent. Specialist terminology is used effectively.
2	3-4	Evaluation of one psychological explanation for schizophrenia is mostly appropriate but lacks detail and/or clarity in places. There is some appropriate use of specialist terminology.
1	1-2	Evaluation of one psychological explanation for schizophrenia is limited/very limited. The answer lacks clarity. Specialist terminology is either absent or inappropriately used.
	0	No relevant content.

Possible evaluation:

- use of evidence to support/contradict psychological explanation, eg Read et al (2005) link between family history of abuse and schizophrenia; Leeson et al (2010) memory impairments in people with schizophrenia
- social explanations, eg family dysfunction can lead to blaming the family
- cognitive explanations can lead to blaming the individual/making them actively responsible
- usefulness when there is often limited scope for change, eg if the family is part of the problem it is difficult to change
- problem of cause and effect – does the family or faulty cognitive processing cause schizophrenia or is it the other way round?
- contrast with alternative explanations.

Credit other relevant material.

[6]

Q6.**[AO1 = 6 AO3 = 10]**

Level	Mark	Description
4	13-16	Knowledge of biological explanation(s) is accurate and generally well detailed. Comparison with the family dysfunction explanation is thorough and effective. Minor detail and/or expansion of argument is sometimes lacking. The answer is clear, coherent and focused. Specialist terminology is used effectively.
3	9-12	Knowledge of biological explanation(s) is evident but there are occasional inaccuracies/omissions. Comparison with the family dysfunction explanation is mostly effective. The answer is mostly clear and organised but occasionally lacks focus. Specialist terminology is used appropriately.
2	5-8	Limited knowledge of biological(s) explanation is present. Focus is mainly on description. Any comparison with the family dysfunction explanation is of limited effectiveness. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.
1	1-4	Knowledge of biological explanation(s) is very limited. Comparison is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology is either absent or inappropriately used.
	0	No relevant content.

Possible content:

- genetic transmission – schizophrenia is heritable through transmission of DNA/genes; familial link; twin studies/family studies/concordance rates; polygenic; candidate genes, eg PCM1; interaction between genes, eg NRG3 and NRG1/ERBB4
- dopamine hypothesis – excess activity of dopamine in subcortical areas; low activity of dopamine in cortex, especially pre-frontal area
- action of other neurotransmitters, eg higher levels of serotonin activity, reduced glutamate activity/NMDA receptor activity
- other neural correlates – enlarged ventricles, reduced grey matter, activity of basal ganglia, reduced activity in the superior temporal gyrus, anterior cingulate gyrus and ventral striatum.

Possible comparisons:

- role of the family – biological explanations implicate family passively through heritability whereas the family dysfunction explanation sees family as more actively responsible through their behaviour, eg high expressed emotion, poor communication; high conflict, schism and skew
- societal attitudes will differ – if family behaviour is seen as the 'cause' then families might be stigmatised, if biological, then family is less blameworthy
- both explanations have led to (effective) treatment
- both explanations are deterministic – but different types of determinism
- neither explanation can establish causality: in both cases the presumed

cause might actually be a consequence, eg family might become dysfunctional as a result; altered neurochemistry/ neuroanatomy might be the effect rather than the cause

- comparison of evidence for each explanation, eg in terms of reliability/validity
- comparisons in relation to ethics, social sensitivity, nature-nurture stance, reductionist stance, nomothetic v idiographic approach.

Credit other relevant material.

[16]