

AQA A-LEVEL PSYCHOLOGY • 7182

# PSYCHOLOGY



**EXAM QUESTION PACK**

**3.3.5 EXPLANATIONS FOR SCHIZOPHRENIA**

**SCORE**

**/135**

**PERCENTAGE**

**%**

**STEMUP**

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**Q1.**

Discuss **one or more** biological explanations for schizophrenia.

**(Total 16 marks)**

**Q2.**

Which of the following best describes neural correlates as an explanation for schizophrenia? Write **A**, **B**, **C**, or **D** in your answer book.

- A** There is a correlation between brain plasticity and symptoms of schizophrenia.
- B** There is a correlation between brain structure and function and symptoms of schizophrenia.
- C** There is a correlation between dysfunctional thinking and symptoms of schizophrenia.
- D** There is a correlation between size of neurons and symptoms of schizophrenia.

**(Total 1 mark)**

**Q3.**

Jack has been diagnosed with schizophrenia.

He describes his family background to his therapist:

'I could never talk to mum. She fussed over me all the time. I tried to do what she said, but could never please her. One minute she seemed all affectionate and the next minute she would make nasty comments. My dad hated all the arguments and stayed out of it.'

Describe the family dysfunction explanation for schizophrenia and explain how Jack's experiences can be linked to the family dysfunction explanation.

**(Total 8 marks)**

**Q4.**

Read the item and then answer the questions that follow.

Louise comes from a family with a history of schizophrenia, as both her grandfather and an aunt have been diagnosed with the disorder. Louise's father has recently died from cancer and she has just moved out of the family home to start a university course. Although she has always been healthy in the past, she has just begun to experience symptoms of schizophrenia, such as delusions and hallucinations.

Using your knowledge of schizophrenia, explain why Louise is now showing symptoms of schizophrenia.

**(Total 4 marks)**

**Q5.**

Discuss biological explanations for schizophrenia.

**(Total 16 marks)**

**Q6.**

Briefly outline family dysfunction as an explanation for schizophrenia.

**(Total 2 marks)**

**Q7.**

Outline and evaluate **one or more** psychological explanations for schizophrenia.

**(Total 16 marks)**

**Q8.**

Discuss biological explanations for schizophrenia.

**(Total 16 marks)**

**Q9.**

Explain how family dysfunction might be involved in schizophrenia. Refer to **one or more** types of family dysfunction in your answer.

**(Total 4 marks)**

**Q10.**

Describe and evaluate biological explanations for schizophrenia. Refer to evidence in your answer.

**(Total 16 marks)**

**Q11.**

'There is considerable evidence that schizophrenia is caused by biological factors. These can be genetic, neuroanatomical, biochemical, viral or a combination of such factors'.

Discuss biological explanations of schizophrenia.

**(Total 16 marks)**

**Q12.**

Outline **one** psychological explanation of schizophrenia.

**(Total 4 marks)**

**Q13.**

Evaluate psychological explanations of schizophrenia.

**(Total 16 marks)**

## Mark schemes

### Q1.

[AO1 = 6 AO3 = 10]

| Level | Mark  | Description                                                                                                                                                                                                                                                                                            |
|-------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4     | 13-16 | Knowledge of <b>one or more</b> biological explanations for schizophrenia is accurate with some detail. 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 <b>one or more</b> biological explanations for schizophrenia is evident but there are occasional inaccuracies / omissions. 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 <b>one or more</b> biological explanations for schizophrenia is present. Focus is mainly on description. Any 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 <b>one or more</b> biological explanations for schizophrenia is very limited. 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:

- genetic explanation – schizophrenia is heritable / inherited through the generations through transmission of genes / DNA; runs in families / familial link; involves a combination of affected genes / is polygenic; candidate genes, e.g. PCM1
- dopamine hypothesis – schizophrenia is linked to excess activity of the dopamine in subcortical areas of the brain (hyperdopaminergia) or to low activity of dopamine in outer areas / cortex especially the prefrontal cortex (hypodopaminergia)
- role of other neurotransmitters, e.g. serotonin, acetylcholine, glutamate
- other neural correlates – size / function of various brain structures has been found to be linked to schizophrenia and/or to specific symptoms of the disorder, e.g. enlarged ventricles / reduced grey matter density / activity of basal ganglia
- knowledge of explanations embedded in research.

#### Possible discussion points:

- use of evidence supporting / refuting a biological cause, e.g. twin and adoption studies; scanning evidence

- consequences of assuming a genetic cause, e.g. family responsibility; determinism; blame, etc
- problems determining cause and effect – e.g. unusual dopamine activity may be a consequence of the disorder rather than the cause
- unusual neural activity may be due to medication rather than a factor in the disorder
- treatment fallacy – just because dopamine blockers reduce symptoms it does not mean that dopamine activity is the cause
- implications for treatment, e.g. early identification, neural explanations lend themselves to medication etc.
- broader issues and debates, e.g. biological reductionism versus a more holistic diathesis-stress approach
- comparison with other explanations.

Credit other relevant material.

[16]

**Q2.**

[AO1 = 1]

1 mark – B

**Q3.**

[AO1 = 4 AO2 = 4]

| Level | Marks | Description                                                                                                                                                                                                                                                                               |
|-------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4     | 7 – 8 | Knowledge of the family dysfunction explanation for schizophrenia is accurate with some detail. Application is thorough and effective. Minor detail and/or expansion is sometimes lacking. The answer is clear, coherent and focused. Specialist terminology is used effectively.         |
| 3     | 5 – 6 | Knowledge of the family dysfunction explanation for schizophrenia is evident but there are occasional inaccuracies/omissions. Application is mostly effective. The answer is mostly clear and organised but occasionally lacks focus. Specialist terminology is used appropriately.       |
| 2     | 3 – 4 | Limited knowledge of the family dysfunction explanation for schizophrenia is present. Any application is of limited effectiveness. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.                            |
| 1     | 1 – 2 | Knowledge of the family dysfunction explanation for schizophrenia is very limited. 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:**

- schizophrenia is due to family experiences of conflict, communication problems, criticism and control
- double-bind communication (Bateson 72) – child receives mixed messages and cannot do the right thing – results in disorganised thinking and paranoia
- high expressed emotion where family shows exaggerated involvement, control, criticism which increases likelihood of relapse (Kavanagh 1992); relapse rate is doubled (Butzlaff and Hooley 1998)
- psychodynamic theorists recognised a schizophrenogenic (schizophrenia-causing) mother – typically cold, controlling and rejecting which leads to excessive stress which triggers psychotic thinking; father in such families is often passive.
- family schism and skew.

**Possible application:**

Credit explanation of links between theory and stem content.

- several references to conflict ('arguments'), communication problems ('could never talk to mum'), criticism ('nasty comments') and control ('tried to do what she said')
- Jack experiences the double-bind (mother's behaviour alternates between affection and nastiness) so Jack doesn't know how she wants him to behave and becomes confused – loses touch with reality
- the family show high expressed emotion – over-fussy ('she fussed over me..') and critical ('nasty comments')
- Jack's mother is cold and unpredictable, (schizophrenogenic characteristics) and father was passive ('stayed out of it').
- symptoms of skewed family – father is uninvolved.

Credit other relevant material.

**Q4.**

[AO2 = 4]

| Level | Marks | Description                                                                                                                                                                                                                        |
|-------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2     | 3 – 4 | Knowledge of both components of the diathesis-stress model is clear and mostly accurate. The material is used appropriately to explain Louise's schizophrenia. The answer is generally coherent with effective use of terminology. |
| 1     | 1 – 2 | Some knowledge of the diathesis-stress model is evident. Links to Louise's schizophrenia are not always effective. The answer lacks accuracy and detail. Use of terminology is either absent or inappropriate.                     |
|       | 0     | No relevant content.                                                                                                                                                                                                               |

**Content:**

Application of the diathesis-stress model as follows:

- genetic vulnerability interacts with stressful life events which trigger schizophrenia
- family background = genetic vulnerability
- losing parent / going to university = stressful events.

**Q5.****[AO1 = 6 AO3 = 10]**

| Level | Marks   | Description                                                                                                                                                                                                                                                                                 |
|-------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4     | 13 – 16 | Knowledge of biological explanations for schizophrenia is accurate and generally well detailed. Discussion is thorough and effective. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and / or expansion of argument sometimes lacking. |
| 3     | 9 – 12  | Knowledge of biological explanations for schizophrenia is evident. There are occasional inaccuracies. Discussion is apparent and mostly effective. The answer is mostly clear and organised. Specialist terminology is mostly used effectively. Lacks focus in places.                      |
| 2     | 5 – 8   | Some knowledge of biological explanation(s) for schizophrenia is present. Focus is mainly on description. Any discussion is only partly effective. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.              |
| 1     | 1 – 4   | Knowledge of biological explanation(s) for schizophrenia is limited. Discussion is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology either absent or inappropriately used.                     |
|       | 0       | No relevant content.                                                                                                                                                                                                                                                                        |

**Possible content:**

- genetic explanation – potential genetic mechanisms
- dopamine hypothesis – increased DA levels linked to symptoms of schizophrenia
- other neurotransmitters implicated, eg serotonin, acetylcholine and glutamate
- neural correlates – decreased ventricle size; reduction in temporal and frontal lobe volume
- evolutionary explanations, eg 'shaman' view.

**Possible discussion points:**

- use of evidence to support / refute, eg MZ / DZ twin studies; other concordance research, pharmacological action of effective antipsychotic drugs; MRI and fMRI scanning studies
- comparison with psychological explanations, eg family-based explanations (EE)
- value of the diathesis-stress approach
- implications, eg determinism, early identification, consequences for treatment
- reductionism – explanation at a basic cellular and chemical level and consequences of this
- issues related to diagnosis and classification as related to biological explanations.

Credit other relevant discussion points.

Only credit evaluation of the methodology used in studies when made relevant to discussion of the explanations.

## Q6.

[AO1 = 2]

### Possible content:

- Characteristics of dysfunction eg difficulties in communication, high levels of interpersonal conflict
- Critical and controlling parents, expressed emotion
- The role of double bind in the development of negative symptoms
- The role of hostility and disapproval in positive symptoms and relapse
- The role of expressed emotion in relapse

**2 marks** for a clear and coherent outline

**1 mark** for a vague /muddled outline

## Q7.

[AO1 = 6 AO3 = 10]

| Level | Marks   | Description                                                                                                                                                                                                                                                                                                               |
|-------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4     | 13 – 16 | Knowledge of one or more psychological explanations for schizophrenia is accurate and generally well detailed. Evaluation is thorough with effective use of material. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and/or expansion of argument sometimes lacking. |
| 3     | 9 – 12  | Knowledge of one or more psychological explanations for schizophrenia is evident. There are occasional inaccuracies. Evaluation is apparent and use of material is mostly effective. The answer is mostly clear and organised. Specialist terminology is mostly used effectively. Lacks focus in places.                  |
| 2     | 5 – 8   | Some knowledge of one or more psychological explanations for schizophrenia is present. Focus is mainly on description. Any evaluation or use of material is only partly effective. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.            |
| 1     | 1 – 4   | Knowledge of one or more psychological explanations for schizophrenia is limited. Evaluation/use of material is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology either absent or inappropriately used.                      |
|       | 0       | No relevant content.                                                                                                                                                                                                                                                                                                      |

### Possible content:

- Family dysfunction - historical views such as the refrigerator mother and Bateson's double bind
- Expressed emotion and family systems theory
- Cognitive approaches - dysfunctional thought processing, impairments in selective attention.
- Frith's ideas on self-monitoring, and his more general approach using deficits in meta representation
- Slade and Bentall's five factor model
- Maher's anomalous experience model

**Possible evaluation points:**

- Limited systematic research evidence on family dysfunction as a cause of schizophrenia though there are a number of relevant case studies
- The effectiveness of family therapy based on reducing expressed emotion supports a family dysfunction approach
- Patients with schizophrenia show deficits on theory of mind tasks, suggesting problems with metarepresentation and supporting Frith
- Some studies show that CBT can be effective in schizophrenia, supporting an involvement of cognitive factors in the disorder
- However patients with schizophrenia can show a wide range of cognitive deficits, and there are also a wide variation in cognitive symptoms between patients
- Use of counterevidence for genetic and neural factors in schizophrenia
- Implications of accepting psychological explanations eg assuming family dysfunction as a cause, economic implications

Credit other relevant material.

Note that students may cover one explanation in more detail or more than one explanation in less detail.

**Q8.**

**Marks for this question: AO1 = 6, AO3 = 10**

| Level | Marks   | Description                                                                                                                                                                                                                                                               |
|-------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4     | 13 – 16 | Knowledge is accurate and generally well detailed. Discussion / evaluation / application is thorough and effective. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and / or expansion of argument sometimes lacking. |
| 3     | 9 – 12  | Knowledge is evident. There are occasional inaccuracies. Discussion / evaluation / application is apparent and mostly effective. The answer is mostly clear and                                                                                                           |

|   |       |                                                                                                                                                                                                                                                                                                   |
|---|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |       | organised. Specialist terminology is mostly used effectively. Lacks focus in places.                                                                                                                                                                                                              |
| 2 | 5 – 8 | Some knowledge is present. Focus is mainly on description. Any discussion / evaluation / application is only partly effective. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.<br><br>One explanation only at Level 4 |
| 1 | 1 – 4 | Knowledge is limited. Discussion / evaluation / application is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology either absent or inappropriately used.<br><br>One explanation only at Level 3        |
|   | 0     | No relevant content.                                                                                                                                                                                                                                                                              |

Please note that although the content for this mark scheme remains the same, on most mark schemes for the new AQA Specification (Sept 2015 onwards) content appears as a bulleted list.

### AO1

Candidates are required to present two or more explanations.

The main biological explanations of schizophrenia are as follows:

- genetics – there is considerable evidence of a genetic predisposition to develop schizophrenia
- biochemistry – the dopamine hypothesis argues that elevated levels of dopamine are related to symptoms of schizophrenia
- neuroanatomy – differences in brain structure (including ventricle size, brain weight and symmetry) have been identified in people with schizophrenia.

Other creditworthy explanations include season of birth, viral influences, birth complications, links to substance abuse and neuropsychological models put forward by Frith and Helmsley. Evolutionary explanations can gain credit.

Given the difficulty of describing genetic explanations in detail, credit is given for straight descriptions of twin, family and adoptive studies which support the genetic explanation of schizophrenia (e.g. Kendler).

### AO2 / AO3 = 16 marks

Credit is awarded for a discussion of biological explanations for schizophrenia. Many evaluation points are relevant to more than one explanation, so partial performance criteria are unlikely to apply.

Evaluation will depend on the explanation offered, but is likely to include supporting evidence and methodological critique of that evidence.

Methodological evaluation of research is creditworthy, provided the implications for

the explanation are made explicit.

Likely material includes:

- genetics – quality of evidence, difficulties in separating environmental and genetic influences in family history and twin studies, sample sizes in twin studies, changes in diagnostic criteria for schizophrenia and zygosity
- biochemistry – difficulties in establishing cause and effect, supporting evidence from post mortem / scanning studies and animal studies, strengths and limitations of evidence
- neuroanatomy – difficulties in establishing cause and effect, supporting evidence from post mortem / scanning studies, strengths and limitations of evidence

The diathesis stress model can be used to demonstrate the interplay of genetic and environmental factors. Explicit comparison with other approaches / explanations can be an effective way of achieving credit. Candidates who link biological explanations such as genetic basis of schizophrenia to the dopamine system are also likely to achieve good marks.

## Q9.

Please note that the AOs for the new AQA Specification (Sept 2015 onwards) have changed. Under the new Specification the following system of AOs applies:

- AO1 knowledge and understanding
- AO2 application (of psychological knowledge)
- AO3 evaluation, analysis, interpretation.

**[AO1 = 2, AO2 = 2]**

### AO1

Up to two marks for knowledge of one or more types of family dysfunction. Likely answers: double-bind; the schizophrenogenic mother; family schism and skew; communication difficulties; interpersonal conflict; high expressed emotion. Credit should be awarded for one type in some detail or for two (or more) done briefly. Candidates who simply name two types of dysfunction - credit one mark. No marks for simply naming one type.

### AO2

Up to two marks for explanation of how the type(s) of dysfunction might be involved in schizophrenia. Candidates might consider the way in which the dysfunction could lead to the development of schizophrenia or might consider the possibility that schizophrenia in a child might lead to the family dysfunction.

## Q10.

**Marks for this question: AO1 = 6, AO3 = 10**

| Level | Marks   | Description                                                                                                    |
|-------|---------|----------------------------------------------------------------------------------------------------------------|
| 4     | 13 – 16 | Knowledge is accurate and generally well detailed. Evidence is clear. Discussion / evaluation / application is |

|   |        |                                                                                                                                                                                                                                                                             |
|---|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |        | thorough and effective. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and / or expansion of argument sometimes lacking.                                                                                               |
| 3 | 9 – 12 | Knowledge is evident. There are occasional inaccuracies. Evidence is presented. Discussion / evaluation / application is apparent and mostly effective. The answer is mostly clear and organised. Specialist terminology is mostly used effectively. Lacks focus in places. |
| 2 | 5 – 8  | Some knowledge is present. Focus is mainly on description. Any discussion / evaluation / application is only partly effective. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.                  |
| 1 | 1 – 4  | Knowledge is limited. Discussion / evaluation / application is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology either absent or inappropriately used.                         |
|   | 0      | No relevant content.                                                                                                                                                                                                                                                        |

Please note that although the content for this mark scheme remains the same, on most mark schemes for the new AQA Specification (Sept 2015 onwards) content appears as a bulleted list.

### AO1

Marks for knowledge of biological explanations for schizophrenia. Likely content: Schizophrenia – dopamine hypothesis – excess dopamine activity at the synapse; increased number of D2 receptors; genetic evidence eg Gottesman (2001) higher concordance for MZ pairs than DZ pairs; adoption studies (Tienara 1991); neuroanatomical correlates eg enlarged ventricles.

### AO3

Up to 8 marks for evaluation of the biological explanation for schizophrenia. Likely content: other possible explanations eg role of social factors, possibly as a trigger; problems with the evidence, for example, issues with twin study evidence; reductionism – biological explanations – oversimplification to explain a complex multi-faceted disorder at the level of cells and chemicals; determinism – the extent to which the disorder might be avoidable, treatable etc. Other possible explanations eg role of social factors, possibly as a trigger; problems with the evidence, for example issues with twin study evidence; reductionism – biological explanations – oversimplification to explain a complex multi-faceted disorder at the level of cells and chemicals; determinism – the extent to which the disorder might be avoidable, treatable etc. Credit use of relevant evidence where used to evaluate the explanations.

## Q11.

Marks for this question: AO1 = 6, AO3 = 10

| Level | Marks   | Description                                                                                                                                                                                                                                                                                                                   |
|-------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4     | 13 – 16 | Knowledge is accurate and generally well detailed. Reference is made to at least 2 biological factors. Discussion / evaluation / application is thorough and effective. The answer is clear, coherent and focused. Specialist terminology is used effectively. Minor detail and / or expansion of argument sometimes lacking. |
| 3     | 9 – 12  | Knowledge is evident. There are occasional inaccuracies. Reference is made to at least 2 biological factors. Discussion / evaluation / application is apparent and mostly effective. The answer is mostly clear and organised. Specialist terminology is mostly used effectively. Lacks focus in places.                      |
| 2     | 5 – 8   | Some knowledge is present. Focus is mainly on description. Any discussion / evaluation / application is only partly effective. The answer lacks clarity, accuracy and organisation in places. Specialist terminology is used inappropriately on occasions.<br><br>One factor only at Level 4.                                 |
| 1     | 1 – 4   | Knowledge is limited. Discussion / evaluation / application is limited, poorly focused or absent. The answer as a whole lacks clarity, has many inaccuracies and is poorly organised. Specialist terminology either absent or inappropriately used.<br><br>One factor only at Level 3                                         |
|       | 0       | No relevant content.                                                                                                                                                                                                                                                                                                          |

Please note that although the content for this mark scheme remains the same, on most mark schemes for the new AQA Specification (Sept 2015 onwards) content appears as a bulleted list.

## AO1

As indicated in the quotation, there are various biological explanations of schizophrenia. Candidates can access full marks by covering two in depth or more than two in slightly less detail.

It is difficult for candidates to offer detailed descriptions of the genetic explanation so, in this case, description of studies which have provided evidence for heritability can be regarded as elaboration of the explanation and, therefore, awarded credit. The most likely biochemical explanation focuses on the dopamine hypothesis. Neuroanatomical explanations tend to focus on damaged brain structures (abnormalities in the frontal and pre-frontal cortex, enlarged ventricles etc). Other acceptable explanations include viral influences, birth complications, season of birth, maternal stress in pregnancy and links to substance abuse. Candidates may present neuropsychological models (Frith), this is acceptable provided that the focus is on biological elements of the model. Evolutionary explanations are acceptable.

### AO3

Candidates are required to provide an evaluation of biological explanations of schizophrenia. The question refers to explanations in the plural. Candidates can legitimately refer to psychological explanations but answers will only gain credit where the material is clearly used to offer commentary on the worth of biological explanations. Similarly, any discussion of therapies is only creditworthy if it is directly relevant to an assessment of the underlying explanation.

Evaluation will depend on the particular explanation eg in the case of genetics, candidates could discuss the quality of supporting evidence and the problems of drawing appropriate conclusions. For example, the data from some adoption studies have been re-analysed (eg Wahlberg et al, 2000 re-analysed data from Tienari et al, 2000) to show rather less support for genetic factors than the original researchers claimed. There is also a problem in longitudinal adoption studies that diagnostic criteria for schizophrenia have changed significantly over time.

Candidates might also consider the current situation in the search for the location of specific genes. Until these have been reliably identified, it is difficult to understand the precise mechanism of genetic transmission.

Biological explanations can be described as reductionist and this can be elaborated as part of the discussion.

Evaluation of other biological explanations might also focus on the quality of supporting evidence (eg contradictory results from different studies, issues of cause and effect, animal studies).

One general point that can be applied to most biological explanations concerns the diversity of symptoms found in people either diagnosed with schizophrenia or a sub-type of schizophrenia – it may be the case, for example, that some explanations can account for certain symptoms better than others.

Candidates might also use the diathesis-stress model as a way of reconciling biological and psychological explanations.

### Q12.

Please note that the AOs for the new AQA Specification (Sept 2015 onwards) have changed. Under the new Specification the following system of AOs applies:

- AO1 knowledge and understanding
- AO2 application (of psychological knowledge)
- AO3 evaluation, analysis, interpretation.

Although the essential content for this mark scheme remains the same, mark schemes for the new AQA Specification (Sept 2015 onwards) take a different format as follows:

- A single set of numbered levels (formerly bands) to cover all skills
- Content appears as a bulleted list
- No IDA expectation in A Level essays, however, credit for references to issues, debates and approaches where relevant.

### AO1 = 4

Candidates are required to provide an outline of **one** psychological explanation of schizophrenia. Where candidates provide more than one explanation, examiners should credit the best account. Descriptions of biological explanations are not credit-worthy. Socio-cultural explanations are included in the specification as examples of psychological

explanations and are perfectly acceptable here. Answers are most likely to focus on one of the following explanations:

- psychodynamic (including family systems theory)
- cognitive
- behavioural.

Candidates could also legitimately outline the role of expressed emotion in schizophrenia or refer to the social drift hypothesis. However, in both cases, they are more relevant to explaining the maintenance of schizophrenia rather than its origins so candidates might find it difficult to access full marks here.

An outline of the diathesis-stress explanation is acceptable provided the candidates emphasise the psychological aspect.

Evaluation of explanations receives no credit.

| <b>AO1 Mark bands</b>                                                                 |
|---------------------------------------------------------------------------------------|
| <b>4 marks</b><br>Outline is reasonably thorough, accurate and coherent.              |
| <b>3 – 2 marks</b><br>Outline is limited, generally accurate and reasonably coherent. |
| <b>1 mark</b><br>Outline is weak and muddled or very limited.                         |
| <b>0 marks</b> No creditworthy material.                                              |

### Q13.

Please note that the AOs for the new AQA Specification (Sept 2015 onwards) have changed. Under the new Specification the following system of AOs applies:

- AO1 knowledge and understanding
- AO2 application (of psychological knowledge)
- AO3 evaluation, analysis, interpretation.

Although the essential content for this mark scheme remains the same, mark schemes for the new AQA Specification (Sept 2015 onwards) take a different format as follows:

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- Content appears as a bulleted list
- No IDA expectation in A Level essays, however, credit for references to issues, debates and approaches where relevant.

#### **AO2 / AO3 = 16**

Candidates are required to provide an evaluation of psychological explanations of schizophrenia. The question refers to **explanations** in the plural since it could be difficult for candidates to provide sufficient evaluative material on a single psychological explanation for full marks. However, given that evaluative points are often relevant to more than one explanation, no partial performance criteria apply for this question.

Candidates can legitimately refer to biological explanations but answers will only gain

credit where the material is clearly used to offer commentary on the worth of psychological explanations. Detailed descriptions of biological explanations cannot gain credit. Similarly, detailed descriptions of psychological explanations cannot gain credit – the focus in this part of the question is on evaluation.

The evaluation can be both positive and negative:

One criticism of psychodynamic theory, for example, is that it places responsibility on mothers. The behavioural explanation is criticised, for example, because it is hard to accept that the bizarre and complex patterns of behaviour seen in people with schizophrenia can be acquired through simple learning processes; the cognitive explanation can be criticised for being descriptive rather than explanatory.

More general evaluations that apply to most psychological explanations include the following:

none of them can adequately account for the indisputable fact that schizophrenia runs in families and that the increased risk is directly associated with the degree of relatedness. There is a lack of strong empirical evidence to support the psychological explanations and there is also a problem of disentangling cause and effect (eg does faulty thinking cause schizophrenia or vice versa?). It is also legitimate to refer to therapies ie that treatments arising from psychodynamic and behavioural explanations appear to have little therapeutic effect in schizophrenia.

Another general point concerns the diversity of symptoms found in people diagnosed either with schizophrenia or a sub-type of schizophrenia – it may be the case, for example, that some explanations can account for certain symptoms better than others. Candidates might also use the diathesis-stress model as a way of reconciling biological and psychological explanations.

| <b>AO2/AO3 Mark bands</b>                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>16 – 13 marks Effective</b><br>Evaluation demonstrates sound analysis and understanding. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.                                                                                      |
| <b>12 – 9 marks Reasonable</b><br>Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.                                                 |
| <b>8 – 5 marks Basic</b><br>Analysis and evaluation demonstrate basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.                                                                                                                                        |
| <b>4 – 1 marks Rudimentary</b><br>Analysis and evaluation is rudimentary, demonstrating very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and maybe mainly irrelevant. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive. |
| <b>0 marks</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           |

No creditworthy material is presented.

## Examiner reports

### Q1.

Many answers were very well prepared, or perhaps well learned, with detailed accounts of genetic evidence, dopamine and neural correlates. Whilst knowledge was generally detailed and accurate, discussions sometimes revealed limited understanding or strayed off the topic. A typical example of this is where students might present drug evidence in support of the role of dopamine, then fell into discussion of the use of drugs and comparison with other treatments / therapies. Some answers showed significant confusion, lack of understanding or only the loosest grasp of terminology, for example, weak answers talked of 'dopamine flowing round the body' and 'parts swelling in the brain'. It is worth noting that some of the most successful answers were from those brave students who opted for a depth approach and focused on a single biological explanation. Limiting the range of material meant that they had time to provide detailed description and fully elaborated discussion.

### Q2.

This question was answered correctly by the vast majority of students.

### Q3.

Students tended to respond well to this question up to a point and the stem afforded ample opportunity for application. Most could offer useful description of behaviours typical of family dysfunction and were able to pick out relevant material from the stem for application to Jack. It was less common to see full coverage of the family dysfunction explanation for schizophrenia, in other words, students often failed to make the link between the particular dysfunction (high expressed emotion, double bind, etc) and behaviours typical of schizophrenia. Only students who fully explored this in their answers achieved higher level marks. Other issues noted included confusion between double bind and high expressed emotion, and an unfortunate but understandable tendency for students to refer to the 'schizophrenic mother' rather than 'the schizophrenogenic mother'. Only very rarely did students pick up on the reference to 'the dad' who 'stayed out of it' as a reference to family schism/skew. Some students wasted time offering evaluation, having then to re-write the same material when they came to the next question.

### Q8.

Schizophrenia remains the most popular option and was attempted by around 65% of students in this series.

This question required students to cover biological explanations of schizophrenia. Very few students fell into the trap of partial performance. Most focused on genetic and biochemical explanations with a smaller number choosing to cover neuro-anatomy or evolutionary accounts. More successful students were able to provide detailed accounts for the dopamine hypothesis and in some cases were able to link this to possible genetic transmission. In contrast to the usual pattern shown, many students provided insufficient descriptive detail of biological explanations often achieving basic marks for AO1. This was most marked for genetic explanations where straightforward descriptions of genetic studies (e.g. family history studies) were awarded AO1 credit. There were schools and colleges where no students achieved the highest bands because descriptions lacked necessary detail. Although breadth can be impressive, students would be well advised to go into more depth for two explanations in questions of this nature.

The best way to provide evaluation of an explanation is to examine evidence for and against the explanation. Whilst better answers took this approach, far too many students lost sight of the explanation altogether, engaging in lengthy and largely irrelevant evaluation of research studies. Many students wasted time by describing in great detail the rationale behind twin and adoption studies, or by giving very generic commentary on these studies without attempting to link it to the explanation or in some cases to schizophrenia.

#### Q9.

Most students managed to gain two marks for knowledge of family dysfunction in this question, with answers based variously on schism, skew and expressed emotion. Sadly, many students using expressed emotion failed to explain the meaning of the term, or even to say that **high** expressed emotion was the problem. Whilst knowledge marks were relatively easily attained, it was much less usual to see effective explanation of how the family dysfunction might lead to development of the disorder.

#### Q10.

This question elicited some extensive and detailed description, with many students achieving full AO1 marks.

Extended discussions covered effective use of evidence, implications, reductionism and comparison with other explanations.

#### Q11.

This was the most popular question attempted by over half of the cohort. Instances of partial performance were rare and many candidates considered three or even four relevant biological explanations of schizophrenia, the most common being genetics, biochemistry and neuroanatomy. Most candidates outlined the genetic explanation using research and were able to achieve reasonable AO1 marks by doing so. There were some impressive descriptions of the dopamine hypothesis, many including specific details relating to D2 receptors.

There were two main problems with AO2 / AO3 in weaker candidates. Some focused on methodological evaluation of research studies without making the implications of their criticism clear in relation to the biological explanation presented (eg genetics). Many candidates attempted generic points on reductionism and determinism. Some weaker candidates covered three or more explanations which limited AO2 / AO3 and the development and elaboration of argument. Many candidates did not follow a clear line of argument and this limited their marks.

Higher AO2 / AO3 marks went to candidates who evaluated each explanation as they went through the essay. Those candidates who were able to consider the inter relationships between biological explanations (for example genetics and biochemistry) were also rewarded.

#### Q12.

The difficulty here for many candidates was keeping their answer to a length appropriate to a 4 mark question and remaining focused on one explanation. Many candidates were unable to prevent themselves from evaluating everything they wrote. The question only required an outline, so evaluation was not creditworthy here and merely wasted time. Better answers could, for example, outline the double bind theory and provide a clear example of what this involves; or they could outline the cognitive model focusing on cognitive deficit theories.

**Q13.**

The main difficulty for candidates in this question was that there was no credit for describing explanations. Many candidates seemed to feel it was necessary to outline (or in some cases give detailed description of) the explanation before evaluating it. This was not required, and credit was only given for evaluation. Candidates could legitimately use biological explanations, but only if they were clearly used as evaluation of psychological explanations.