

**CAMBRIDGE INTERNATIONAL EXAMINATIONS**  
Cambridge International Advanced Level

## **MARK SCHEME for the May/June 2015 series**

### **9698 PSYCHOLOGY**

**9698/32**

Paper 3 (Specialist Choices), maximum raw mark 80

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2015 series for most Cambridge IGCSE<sup>®</sup>, Cambridge International A and AS Level components and some Cambridge O Level components.

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Each option has three questions:

**Section A: A short answer question: (a) ∇ 2 marks, (b) ∇ 4 marks**

**Section B: An essay question: (a) ∇ 8 marks, (b) ∇ 12 marks**

**Section C: An applications question (a) ∇ 6 marks, (b) ∇ 8 marks [choice of questions]**

*In order to achieve the same standard across all options, the same mark schemes are used for each option. These mark schemes are as follows.*

**Section A: Short answer question: (a) ∇ 2 marks**

No answer or incorrect answer.	0
Basic or muddled explanation. Some understanding but brief and lacks clarity.	1
Clear, accurate and explicit explanation of term.	2

**Section A: Short answer question: (b) ∇ 4 marks**

No answer or incorrect answer.	0
Anecdotal answer with little understanding of question area and no specific reference to study.	1
Basic answer with some understanding. Reference to named study/area only. Minimal detail.	2
Good answer with good understanding. Study/area included with good description.	3
Very good answer with clear understanding of study/area with detailed and accurate description.	4

**Section B: Essay question: (a) ∇ 8 marks**

No answer or incorrect answer.	0
Definition of terms and use of psychological terminology is sparse or absent. Description is mainly inaccurate, lacks coherence and lacks detail. Understanding is poor. The answer is unstructured and lacks organisation.	1–2
Definition of terms is basic and use of psychological terminology is adequate. Description is often accurate, generally coherent but lacks detail. Understanding is reasonable. The answer is lacking structure or organisation.	3–4
Definition of terms is mainly accurate and use of psychological terminology is competent. Description is mainly accurate, coherent and reasonably detailed. Understanding is good. The answer has some structure and organisation.	5–6
Definition of terms is accurate and use of psychological terminology is comprehensive. Description is accurate, coherent and detailed. Understanding is very good. The answer is competently structured and organised.	7–8

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**Section B: Essay question: (b) ▽ 12 marks**

No answer or incorrect answer.	0
<p>Evaluation (positive and negative points) is <b>basic</b>.  Range of evaluative points, <u>which may or may not include the named issue</u>, is sparse and may be only positive or negative.  Evaluative points are not organised into issues/debates, methods or approaches.  Sparse or no use of appropriate supporting examples which are peripherally related to the question.  Analysis (key points and valid generalisations) is very limited or not present.  Evaluation is severely lacking in detail and understanding is weak.</p>	1–3
<p>Evaluation (positive and negative points) is <b>limited</b>.  Range of evaluative points, <u>which may or may not include the named issue</u>, is limited.  Points hint at issues/debates, methods or approaches but with little or no organisation into issues.  Poor use of supporting examples.  Analysis (key points and valid generalisations) is sparse.  Evaluation is lacking in detail and understanding is sparse.  NB If evaluation is ‘by study’ with same issues identified repeatedly with no positive or negative points of issues, however good examples are, maximum 6 marks.  NB If the issue stated in the question is <b>not</b> addressed, maximum 6 marks.  NB If <b>only</b> the issue stated in the question is addressed, maximum 4 marks.</p>	4–6
<p>Evaluation (positive and negative points) is <b>good</b>.  Range of evaluative issues/debates, methods or approaches, <u>including the named issue</u>, is good and is balanced.  The answer has some organisation of evaluative issues (rather than ‘study by study’).  Good use of appropriate supporting examples which are related to the question.  Analysis (key points and valid generalisations) is often evident.  Evaluation has good detail and understanding is good.</p>	7–9
<p>Evaluation (positive and negative points) is <b>comprehensive</b>.  Selection and range of evaluative issues/debates, methods or approaches, <u>including the named issue</u>, is very good and which are competently organised.  Effective use of appropriate supporting examples which are explicitly related to the question.  Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout.  Evaluation is detailed and understanding is thorough.</p>	10–12

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<b>Section C: Application question (a) ▽ 6 marks</b>	
No answer or incorrect answer.	0
Vague attempt to relate anecdotal evidence to question. Understanding limited.	1–2
Brief description of range of appropriate evidence with some understanding.	3–4
Appropriate description of good range of appropriate evidence with clear understanding.	5–6

<b>Section C: Application question (b) ▽ 8 marks</b>	
<b>Suggestion</b> is wrong.	0
<b>Suggestion</b> is largely appropriate to the question and is vaguely based on psychological knowledge. Answer is mainly inaccurate, often incoherent and lacks detail. Understanding is lacking. If applicable, methodological knowledge is basic or absent. For methodology question <i>description</i> of a study/other authors' work 2 marks max if related to question.	1–2
<b>Suggestion</b> is appropriate to the question and based on psychological knowledge. Answer has some accuracy, some coherence and some detail. Understanding is limited. If applicable, methodological knowledge is adequate. Max mark if no method is suggested (beyond identification).	3–4
<b>Suggestion</b> is appropriate to the question and is based on psychological knowledge. Answer is accurate, largely coherent and detailed. Understanding is good. If applicable, methodological knowledge is good.	5–6
<b>Suggestion</b> is appropriate to the question and is clearly based on psychological knowledge. Answer is accurate, is coherent and has appropriate detail. Terminology is used appropriately. Understanding is very good. Methodological knowledge is very good.	7–8

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## PSYCHOLOGY AND EDUCATION

### Section A

- 1 (a) Explain, in your own words, what is meant by ‘giftedness’. [2]

**Typically:** gifted (and talented): when a child performs at (shows evidence of) a much higher level of accomplishment compared to others of the same age/environment.

- (b) Describe two types of giftedness. [4]

**Syllabus:**

- **definitions, types and assessment of special educational needs (including gifted children).** Definitions of special educational need and giftedness; types of special educational need (e.g. dyslexia, attention deficit hyperactivity disorder ADHD), autistic spectrum disorders and giftedness (e.g. Bridges, 1969).

**Most likely:**

Types of giftedness:

1. **Intelligence:** Marland (1972) ‘gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities are capable of high performance’.
2. Specific **information processing strategies:** they learn quickly, transfer knowledge and skills to new situations with ease and process information flexibly.
3. **Insight skills** that allow a person to separate relevant from irrelevant material, combine isolated pieces of information into a coherent whole and relate newly acquired information to that already in their possession.
4. Exceptional ability in **mathematics, music, art, sport, etc.**

**Marks:** 1 mark for identification of an appropriate example and 1 mark for description/elaboration of it.

### Section B

- 2 (a) Describe what psychologists have discovered about perspectives on learning. [8]

Candidates are likely to include some of the following details from the syllabus:

- **behaviourist applications to learning.** Underlying theory (classical and operant conditioning); applications such as programmed learning and behaviour modification techniques (controlling disruptive behaviour).
- **humanistic applications to learning.** Underlying theory (Rogers, 1951); applications such as co-operative learning, learning circles and the open classroom. Summerhill School.
- **cognitive applications to learning.** Underlying theory (e.g. Piaget); applications such as discovery learning (Bruner); expository teaching/reception learning (Ausubel); zone of proximal development (Vygotsky).

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- (b) Evaluate what psychologists have discovered about perspectives on learning and include a discussion of the usefulness of different perspectives. [12]

NOTE: any evaluative point can receive credit; the hints are for guidance only.

Evaluation of theory:

internal strengths and weaknesses;  
 theoretical issues: reductionism, determinism, ethnocentrism.  
 Supporting/contradicting evidence;  
 Comparisons and contrasts with alternative theory.

Evaluation of research:

strengths and weaknesses of methods, sample, controls, procedure.  
 Evaluation of and comparisons and/or contrasts with alternative methodologies.

Evaluation of issues and debates: Any relevant debate can be raised, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

Named issue: usefulness. Is what psychology offers to the world useful, or not so useful? Particularly so in the topic area of perspectives on learning, the debate determining how children are taught is a very important one.

### Section C

- 3 According to Brophy, praise is an effective way for a teacher to motivate children. It has also been shown that praise can be ineffective.

- (a) Suggest how you, as a teacher, would use praise in your classroom. [8]

**General:** In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not *description* that is being assessed, but an individual *suggestion*. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.

**Specific:** the task must include several important elements. It must include the use of praise (i.e. for what) and it must refer to why praise is used.

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(b) Describe the behaviourist approach to motivation. [6]

**Syllabus:**

- **definitions, types and theories of motivation.** Types such as extrinsic and intrinsic. Theories: behaviourist (e.g. Brophy, 1981); humanistic (e.g. Maslow, 1970); cognitive (e.g. McClelland, 1953)

**Expansion:**

The behaviourists see a person being motivated by extrinsic rewards, specifically the use of positive and negative reinforcement and punishment.

4 Disruptive behavior is sometimes caused by poor teaching style. There is a teacher whose pupils disrupt the class. You decide to observe this teacher to determine their teaching style.

(a) Suggest how you would design and conduct your observational study of teaching style. [8]

**General:** In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not *description* that is being assessed, but an individual *suggestion*. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.

**Specific:** Candidates must use an observation and so knowledge of a specific type of observation should be evident along with knowledge of what that type of observation involves such as the mention of response categories.

(b) Describe one teaching style that should not cause disruptive behaviour. [6]

**Syllabus:**

- **types, explanations and effects of disruptive behaviours.** Types: conduct (e.g. distracting, attention-seeking, calling out, out-of-seat); immaturity and verbal and physical aggression (bullying), attention deficit hyperactivity disorder. Explanations and effects for one or more of above types. Poor teaching style.

**Expansion:**

- **Bennett** (1976) distinguishes between a **formal** (teacher centred) and an **informal** (student centred) style of teaching. The formal style should not result in disruption because the style means the teacher controls what happens and how learning takes place.
- Alternatively, **Fontana** (1995) distinguishes between a high-initiative style and a low-initiative style. A **high initiative teacher** is aware of the needs of individual students and so they will be more active in learning, make more informed decisions and be more confident about what they do. They should, therefore, not be disruptive.

**Marks:** Candidates must address a teaching style. Anecdotal answers may receive 1 or 2 marks, but a psychologically based style is needed to access the middle and top band marks.

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## PSYCHOLOGY AND HEALTH

### Section A

- 5 (a) Explain, in your own words, what is meant by ‘recording devices and sample tests’ to measure stress. [2]

**Typically:** the ‘recording devices’ include any device that can measure heightened physiology, such as sphygmomanometer, GSR, ECG. ‘Sample tests’ include any measure of a sample of blood, urine or saliva to determine presence of stress related hormones. 1 mark for ‘recording devices’ and 1 mark for ‘sample tests’.

- (b) Describe one study that has used a recording device and one study that has used a sample test to measure stress. [4]

#### Syllabus:

- **measures of stress.** Physiological measures: recording devices and sample tests (e.g. Geer and Maisel, 1972; Johansson, 1978); self-report questionnaires (Holmes and Rahe, 1967; Friedman and Rosenman, 1974; Lazarus, 1981).

#### Most likely:

- **Galvanic skin response** (GSR) calculates the electrical resistance of the skin, an indicator of arousal in the autonomic nervous system. **Geer and Maisel** (1972) measured GSR in participants exposed to photographs of dead bodies. The results showed that the group without control found viewing the picture more stressful than the group with control.
- **Blood pressure tests: Goldstein et al.** (1992) found that paramedics’ blood pressure (using a sphygmomanometer) was higher during ambulance runs or when at the hospital, compared to other work situations or when at home.
- **Sample tests: Johansson et al.** (1978) as above found the ‘finishers’ in a Swedish sawmill excreted more stress hormones than cleaners. **Lundberg** (1976) collected urine samples to measure the levels of stress caused by commuting to work. **Wang et al.** (2005) analysed salivary cortisol to measure stress in their fMRI study.

**Marks:** 1 mark for identification of measure and 1 mark for basic description of study with elaboration.

### Section B

- 6 (a) Describe what psychologists have found out about adherence to medical advice. [8]

Candidates are likely to include some of the following details from the syllabus:

- **types of non-adherence and reasons why patients don’t adhere.** Types and extent of non-adherence. Rational non-adherence (e.g. Bulpitt, 1988); customising treatment (e.g. Johnson and Bytheway, 2000).
- **measuring adherence/non-adherence.** Subjective: self reports (e.g. Riekart and Droter, 1999). Objective: pill counting (e.g. Chung and Naya, 2000); biochemical tests (e.g. Roth, 1987); repeat prescriptions (e.g. Sherman, 2000).
- **improving adherence.** Improve practitioner style (e.g. Ley, 1988), provide information (e.g. Lewin, 1992), behavioural techniques (e.g. Burke et al., 1997).



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- (b) Evaluate what psychologists have found out about adherence to medical advice, discussing the validity of measures of adherence. [12]

*NOTE: any evaluative point can receive credit; the hints are for guidance only.*

Evaluation of theory:

internal strengths and weaknesses;  
 theoretical issues: reductionism, determinism, ethnocentrism.  
 Supporting/contradicting evidence;  
 Comparisons and contrasts with alternative theory.

Evaluation of research:

strengths and weaknesses of methods, sample, controls, procedure.  
 Evaluation of and comparisons and/or contrasts with alternative methodologies.

Evaluation of issues and debates: *Any relevant debate can be raised*, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

Named issue: Validity: validity is whether a measure actually measures what it claims, so if this is not happening, this has serious implications. Validity can be tested in many ways and candidates may refer to one or more ways. With regard to adherence, just because a pill has left a medicine bottle, it doesn't mean the pills has been taken. Pill counting for example, may not be a valid measure of adherence.

### Section C

- 7 Patient controlled analgesia is where people can control the amount and frequency of a pain-controlling drug they give to themselves to manage acute pain. This is instead of being given a fixed amount of the drug at a fixed time by a medical practitioner.

- (a) Suggest how you would conduct an experiment to investigate the effectiveness of patient controlled analgesia. [8]

**General:** In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not *description* that is being assessed, but an individual *suggestion*. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.

**Specific:** Candidates must use an experiment, so inclusion of IV and DV, controls, and design, task to be completed, setting and sample are essential features. The design of the experiment must involve PCA.

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(b) Describe medical techniques for managing or controlling pain. [6]

**Syllabus:**

- **managing and controlling pain** Medical techniques (e.g. surgical; chemical). Psychological techniques: cognitive strategies (e.g. attention diversion, non-pain imagery and cognitive redefinition); alternative techniques (e.g. acupuncture, stimulation therapy/tens).

**Most likely:**

- Surgery such as amputation is possible but can lead to phantom limb pain.
- Pain can be managed with chemicals (medicines or drugs): peripherally acting analgesics act on the peripheral nervous system (e.g. aspirin, ibuprofen, paracetamol); centrally acting analgesics work directly on the central nervous system (e.g. morphine); local anaesthetics are effective when ‘rubbed in’ but are best when injected into a site (e.g. tooth extraction, epidural).

**Marks:** marks can be allocated for range or for detail; use of surgery does not need to be included for max.

8 Reason (2000) categorises the causes of accidents into what he calls ‘Theory A’ and ‘Theory B’. There has been an accident in a workplace and you have been sent to investigate the cause.

(a) Suggest how you would investigate whether the cause of the accident was due to ‘Theory A’ or ‘Theory B’. [8]

**General:** In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the ‘you’ is emphasised to show that in this question it is not *description* that is being assessed, but an individual *suggestion*. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.

**Specific:** Candidates are free to choose a method and then to suggest how they would investigate the cause of the accident using it. Marks awarded for methodological knowledge and how the methodology is applied to this topic area.

(b) Describe two accidents that could be attributed to ‘Theory A’. [6]

**Syllabus:**

- **definitions, causes and examples.** Definitions of accidents; causes: theory A and theory B (Reason, 2000); examples of individual and system errors (e.g. Three Mile Island, 1979; Chernobyl, 1986).

**Most likely: (any other appropriate example to receive credit):**

- The Three Mile Island (1979) and Chernobyl (1986) nuclear energy technological accidents are where workers were working a rapidly rotating shift system, the 10pm to 6am ‘graveyard’ shift and the poor design and layout of the technology meant that it was impossible for the workers to cope with a minor event leading to the release of radioactive material.

**Marks:** 3 marks for each description of accident.

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## PSYCHOLOGY AND ENVIRONMENT

### Section A

- 9 (a) Explain, in your own words, what is meant by the term 'noise'. [2]

**Typically:** a common definition is that 'noise is unwanted sound'. This definition alone is worth 1 mark, and brief expansion is needed for 2 marks, such as why the sound is unwanted.

- (b) Using examples, describe factors that make noise annoying, such as those suggested by Kryter. [4]

**Syllabus:**

- **definitions and sources.** Definitions of noise (e.g. Kryter, 1970); transportation noise and occupational noise. Factors that make noise annoying.

**Most likely:**

- **Kryter** (1970) suggests: volume, unpredictability and a lack of perceived control.
- **Borsky** (1969) suggests: if noise perceived as unnecessary; if those causing noise appear unconcerned about the welfare of those exposed to it; if person hearing noise associates it with fear; if noise is yet another environmental stressor in addition to others.

**Marks:** 3 marks max for three correct features identified OR 4 marks for two correct features described with examples. 0 marks for **types** of noise unless related to why the type is annoying.

### Section B

- 10 (a) Describe what psychologists have discovered about density and crowding. [8]

Candidates are likely to include some of the following details from the syllabus:

- **definitions, measurements and animal studies.** Social and spatial density; crowding. Animal studies (e.g. lemmings: Dubos, 1965; deer: Christian, 1960; rats: Calhoun, 1962).
- **effects on human health, pro-social behaviour and performance.** Pro-social behaviour (e.g. Dukes and Jorgenson, 1976; Bickman et al., 1973). Health (e.g. Lundberg, 1976). Performance (e.g. Mackintosh, 1975).
- **preventing and coping with effects of crowding.** Preventing: modify architecture; visual escape (e.g. Baum et al., 1976) and other aspects. Coping: (e.g. Langer and Saegert, 1977; Karlin et al., 1979).

**Marks:** 0 marks for answers on crowds and collective behaviour (not now on the syllabus).

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- (b) Evaluate what psychologists have discovered about density and crowding, including a discussion about the use of experiments to gather data. [12]

*NOTE: any evaluative point can receive credit; the hints are for guidance only.*

Evaluation of theory:

internal strengths and weaknesses;  
 theoretical issues: reductionism, determinism, ethnocentrism.  
 Supporting/contradicting evidence;  
 Comparisons and contrasts with alternative theory.

Evaluation of research:

strengths and weaknesses of methods, sample, controls, procedure.  
 Evaluation of and comparisons and/or contrasts with alternative methodologies.

Evaluation of issues and debates: *Any relevant debate can be raised*, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

Named issue: Experiments: there are strengths and weaknesses of the experimental method itself. There are also strengths and weaknesses of laboratory and field experiments. Candidates should be able to provide a detailed and full discussion for this named issue.

### Section C

- 11 You have been consulted by the designers of a housing project who want to avoid the problems of the Pruitt-Igoe project.

- (a) Suggest how you would design a successful housing project. [8]

**General:** In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not *description* that is being assessed, but an individual *suggestion*. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.

**Specific:** It is unlikely candidates will use a method as such, instead listing the features of their housing design. Their suggestions should be based on psychological knowledge and this knowledge should form the basis of their part (b) answer.

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(b) Describe the evidence on which your suggestion is based. [6]

**Syllabus:**

- **urban renewal and housing design.** Renewal and building design: (e.g. Pruitt-Igoe, 1954–1972); Newman (e.g. Clason Point and Five Oaks, 1994).

**Most likely:**

- Suggestion should be based on work of **Newman**: Clason Point in New York City or Five Oaks, Dayton, Ohio (1994) streets closed, improved lighting introduced speed bumps and divided into ‘mini-neighbourhoods’. Also encouraged sense of personal ownership.
- Candidates may mention what their design is not based on: **Pruitt-Igoe project**: 43 buildings, 11 stories high, containing 2,762 apartments and covering 57 acres. After 3 years = very high crime rate. By 1970 27 of the 43 buildings were empty. Whole estate demolished in 1972.

12 Pigeons are said to navigate (way-find) using a substance in their brain called magnetite. Humans may also use magnetite to way-find.

(a) Suggest how you would use a field experiment to investigate whether humans use magnetite to way-find. [8]

**General:** In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the ‘you’ is emphasised to show that in this question it is not *description* that is being assessed, but an individual *suggestion*. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.

**Specific:** Candidates must use a field experiment, so inclusion of the setting, IV and DV, controls, and design are essential features. The design must clearly show how human magnetite is being investigated.

(b) Describe any two studies that have investigated cognitive maps in animals. [6]

**Syllabus:**

- **cognitive maps in animals.** Cognitive maps in: squirrels (Jacobs and Linman, 1991); bees (Capaldi, 2000); pigeons and magnetite (Walcott, 1979).

**Most likely:**

- **Jacobs and Linman** (1991) investigated the role of the cognitive map in allowing squirrels to search for food that they had stored themselves. Results suggest that they were using cognitive maps.
- **Capaldi** (2000) bees learn their environment by flying around.
- **Walcott et al.** (1979) involved the systematic manipulation of magnetic cues (including fitting pigeons with a Helmholtz coil to disrupt magnetic signals). Found pigeon has sensitivity to magnetic fields of earth – has the substance magnetite in its brain.

**Marks:** 3 marks for each description of relevant animal study.

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## PSYCHOLOGY AND ABNORMALITY

### Section A

- 13 (a) Explain, in your own words, what is meant by ‘cognitive restructuring’. [2]

**Typically:** this is the process whereby a person replaces negative thoughts with positive thoughts, thereby ‘restructuring’ their thinking.

- (b) Describe cognitive restructuring as outlined by Beck (1979) in relation to depression. [4]

**Syllabus:**

- **treatments for depression.** Biological: chemical/drugs (MAO, SSRIs); electro-convulsive therapy. Cognitive restructuring (Beck, 1979); rational emotive therapy (Ellis, 1962).

**Most likely:**

- **Beck (1979):** self-blame and ineptness schema lead to negative automatic thoughts (NAT’s) about the self, the world and the future (negative cognitive triad). Cognitive restructuring attempts to change this.
- **Beck outlines cognitive restructuring.** The cause of depression may be due to the person having negative automatic thoughts. Using a six-stage process, the person is taught to identify unpleasant emotions, the situations in which these occur and the associated negative thoughts. The person is taught to challenge the negative thoughts and replace them with positive thoughts.

**Marks:** 1–2 basic (or not applied to depression); 3–4 increasing quality of description with elaboration.

### Section B

- 14 (a) Describe what psychologists have discovered about schizophrenia. [8]

Candidates are likely to include some of the following details from the syllabus:

- **types, symptoms and characteristics of schizophrenia.** Types (e.g. catatonic, paranoid); characteristics; case studies/examples.
- **explanations of schizophrenia.** Genetic (e.g. Gottesman and Shields, 1972); biochemical (dopamine hypothesis); cognitive (e.g. Frith, 1992).
- **treatments for schizophrenia.** Biochemical (antipsychotics and atypical antipsychotics); electro-convulsive therapy. Token economy (Paul and Lentz, 1977); cognitive-behavioural therapy (Sensky, 2000).

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- (b) Evaluate what psychologists have discovered about schizophrenia, including a discussion about generalisations. [12]

*NOTE: any evaluative point can receive credit; the hints are for guidance only.*

Evaluation of theory:

internal strengths and weaknesses;  
 theoretical issues: reductionism, determinism, ethnocentrism.  
 Supporting/contradicting evidence;  
 Comparisons and contrasts with alternative theory.

Evaluation of research:

strengths and weaknesses of methods, sample, controls, procedure.  
 Evaluation of and comparisons and/or contrasts with alternative methodologies.

Evaluation of issues and debates: *Any relevant debate can be raised*, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

Named issue: Generalisations. The extent to which a sample can be applied to the wider population. There are cultural universals but individual, cultural or sex differences may exist. To what extent can aspects of schizophrenia be generalised?

### Section C

#### 15 Impulse control disorders are often said to be caused by a combination of factors.

- (a) Suggest how you would investigate the relationship between biochemical and psychological factors in impulse control disorders. [8]

**General:** In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not *description* that is being assessed, but an individual *suggestion*. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.

**Specific:** No specific method is named, so candidates are free to choose. The wording of the question would suggest a correlation, such as between some psychological measure (e.g. level of excitement on a 5 point scale) and some physiological measure (heart rate, GSR, salivary cortisol, etc.) when a particular behaviour is being performed. No specific ICD is named, so the investigation could relate to one or more disorders.

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- (b) Describe how biochemical and psychological factors may interact to explain one impulse control disorder. [6]

**Syllabus:**

- **causes of addiction and impulse control disorders.** Genetic: alcohol (e.g. Schuckit, 1985); biochemical: dopamine; behavioural: positive reinforcement; cognitive/personality.

**Most likely:**

- **Biochemical:** the release of dopamine gives feelings of pleasure and satisfaction and the person enjoys the pleasant and exciting feelings. The person wants to experience the same sensations again and so will repeat the behaviors that cause the release of dopamine.
- **Psychological:** if a reward is obtained from a particular behaviour (e.g. the thrill experienced due to dopamine) it means the person is likely to repeat the behavior. This is simple behaviourism and this shows the relationship between biochemical and psychological factors.

- 16 A compulsion is a recurring action the person is forced to enact. Psychologists wonder what causes these actions and want to find out whether they are really compulsive.

- (a) Suggest how you could use an observation to investigate whether the behaviour of a person is compulsive. [8]

**General:** In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not *description* that is being assessed, but an individual *suggestion*. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.

**Specific:** Candidates must use observation, so inclusion of the type (controlled, natural, participant, etc.), coding/response categories and sampling type (event, time, etc.) and whether or not there are two or more observers are essential features.

- (b) Describe both the psychodynamic and biochemical explanations for obsessive-compulsive disorder. [6]

**Syllabus:**

- **explanations of obsessive/compulsive disorder.** Biomedical; cognitive-behavioural; psychodynamic.

**Most likely:**

- The **psychodynamic** explanation of OCD is that there is a conflict between the id and the ego which creates anxiety. The id creates obsessive thoughts whilst the ego, in trying to control the id, creates compulsive behaviour to try to counteract the obsessive thoughts and resolve the conflict.
- One **biological** explanation, Altemus et al. (1993) suggests that OCD is caused by low serotonin levels. Other research shows abnormal functioning in the orbital region of the frontal cortex and/or the caudate nuclei.



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## PSYCHOLOGY AND ORGANISATIONS

### Section A

17 (a) Explain, in your own words, what is meant by the term ‘job analysis techniques’. [2]

**Typically:** job analysis is the systematic study of the task, procedure, tools, duties and responsibilities involved a job.

(b) Describe two job analysis techniques. [4]

#### Syllabus:

- **personnel selection decisions and job analysis.** The selection of personnel: decision-making (e.g. multiple regression, multiple hurdle and multiple cut-off models). Biases in selection decisions and equal opportunities. Job descriptions and specifications. Job analysis techniques (e.g. FJA and PAQ).

#### Most likely (any other appropriate technique to be credited):

- **FJA** (Functional Job Analysis) Fine and Cronshaw (1944) has 7 scales to describe. The scales are: **things** (scale 0–6), **data** (scale 0–6) and **people** (scale 0–8). The most recent version also includes worker instructions, reasoning, maths and language.
- **PAQ** [Positional Analysis Questionnaire] uses a structured questionnaire to analyse jobs. 195 statements divided into the six categories of: information input, mental process, work output, relationships with others, job context, and ‘other job characteristics’. Scoring is on a 6 point scale from N ‘not apply’ to 5 ‘very substantial use’.

**Marks:** 1 mark for identification of an appropriate technique and 1 mark for description/ elaboration of it. 0 marks for ‘observation’ or ‘questionnaire’ unless it is specifically related to job analysis.

### Section B

18 (a) Describe what psychologists have found out about organisational work conditions. [8]

Candidates are likely to include some of the following details from the syllabus:

- **Physical and psychological work conditions:** Physical: Illumination, temperature, noise, motion (vibration), pollution, aesthetic factors. Psychological: feelings of privacy or crowding, excessive or absence of social interaction, sense of status or importance/anonymity or unimportance.
- **Temporal conditions of work environments:** Shiftwork: rapid rotation theory (e.g. metropolitan rota and continental rota); slow rotation theory. Compressed work weeks and flexitime.
- **Ergonomics:** Operator-machine systems: visual and auditory displays, controls. Errors and accidents in operator-machine systems. Reducing errors: theory A and theory B (Reason, 2000).

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- (b) Evaluate what psychologists have found out about organisational work conditions and include a discussion about ecological validity. [12]

NOTE: any evaluative point can receive credit; the hints are for guidance only.

Evaluation of theory:

internal strengths and weaknesses;  
 theoretical issues: reductionism, determinism, ethnocentrism.  
 Supporting/contradicting evidence;  
 Comparisons and contrasts with alternative theory.

Evaluation of research:

strengths and weaknesses of methods, sample, controls, procedure.  
 Evaluation of and comparisons and/or contrasts with alternative methodologies.

Evaluation of issues and debates: Any relevant debate can be raised, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.

Named issue: ecological validity: ecological validity is how true to real life a study is. This can refer to the location in which a study takes place or it can relate to the task a participant is required to do. In this question, most research is done 'in situ' so most research is high in ecological validity. Candidates should be aware of this and be able to contrast it with laboratory based studies for example.

### Section C

- 19 In 1970, Maslow extended his theory of motivation from five to eight needs.

- (a) Suggest how you would use a questionnaire to investigate whether people have achieved any one of the three additional needs. [8]

**General:** In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not *description* that is being assessed, but an individual *suggestion*. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.

**Specific:** The named method is a questionnaire so candidates are expected to show knowledge of questionnaire design (e.g. open or closed), examples of questions (that clearly test one or more of Maslow's **latest** needs), and how the answers will be scored.

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(b) Describe Maslow's hierarchy of needs. [6]

**Syllabus:**

- **need theories of motivation.** Need theories: hierarchy of needs (Maslow, 1970), ERG theory (Aldefer, 1972), achievement motivation (McClelland, 1965).

**Most likely:**

- **Maslow (1954) need-hierarchy** proposed a five tier hierarchy including:
  1. Physiological: food, drink, warmth, etc.
  2. Safety: protection from harm, need for law and order.
  3. Social: need for affection, relationships and family.
  4. Esteem: need for achievement, mastery of skills, status.
  5. Self actualisation: realising potential; fulfilment.
- In 1970 Maslow added two more needs and an eighth later.
  6. Cognitive: having knowledge and understanding.
  7. Aesthetic: the appreciation and search for beauty.
  8. Transcendent: helping others to achieve self-actualisation.

20 Leaders can have different styles of behaviour.

(a) Suggest how you would investigate the style of behaviour shown by a leader. [8]

**General:** In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not *description* that is being assessed, but an individual *suggestion*. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.

**Specific:** Candidates are free to choose a method and then to suggest how they would investigate the behaviour of a leader using it. Marks awarded for methodological knowledge and how the methodology is applied to this topic area.

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(b) Describe one theory of leadership style such as that by Muczyk and Reimann (1987). [6]

**Syllabus:**

- **leadership style and effectiveness.** Effectiveness: contingency theory (Fiedler, 1976); situational leadership (Hersey and Blanchard, 1988), path-goal theory (House, 1979). Styles: permissive versus autocratic (e.g. Muczyk and Reimann, 1987). Leadership training and characteristics of effective leaders.

**Most likely:**

- Muczyk and Reimann (1987) propose four styles of leader behaviour: directive democrat, directive autocrat, permissive democrat and permissive autocrat. These styles are determined by (i) the extent to which they involve others in decision-making and (ii) the extent to which they are involved in executing a decision.
- Hersey and Blanchard: style determined by styles (telling, selling, participating and delegating), maturity levels and development levels.
- House: style – achieve goals, clarify routes to goals, remove obstacles. Style is leader compensating and complementing worker deficiencies.

**Marks:** Candidates who write about theories of leadership (e.g. ‘great person’, charismatic, and behavioural (Michigan/Ohio)) can only receive credit (otherwise 0 marks) if the theory is linked with a style. For example, Ohio theory outlines initiating and task structure leading to four styles. Michigan theory: task and relationship lead to five types: ‘country club’, etc.