**UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**

**GCE Advanced Level**

# MARK SCHEME for the October/November 2011 question paper for the guidance of teachers

## 9698 PSYCHOLOGY

**9698/31** Paper 3 (Specialist Choices), maximum raw mark 70

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.

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## SECTION A

| Q | Description | Marks |
|---|---|---|
| **(a)** | No answer or incorrect answer. | 0 |
| | Some understanding, but explanation brief and lacks clarity. | 1 |
| | Clear, accurate and explicit explanation of term. | 2 |
| | max mark | 2 |
| **(b)** | *Part **(b)** could require one aspect, in which case marks apply once.*<br>*Part **(b)** could require two aspects, in which case marks apply twice.* | |
| | No answer or incorrect answer. | 0 |
| | Answer anecdotal or of peripheral relevance only. | 1 |
| | Answer appropriate, some accuracy, brief. | 2 |
| | Answer appropriate, accurate, with elaboration. | 3 |
| | max mark | 3 or 6 |
| **(c)** | *Part **(c)** could require one aspect, in which case marks apply once.*<br>*Part **(c)** could require two aspects, in which case marks apply twice.* | |
| | No answer or incorrect answer. | 0 |
| | Answer anecdotal or of peripheral relevance only. | 1 |
| | Answer appropriate, some accuracy, brief. | 2 |
| | Answer appropriate, accurate, with elaboration. | 3 |
| | max mark | 3 or 6 |
| | Maximum mark for **SECTION A** | 11 |

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## SECTION B

| Q | Description | Marks |
|---|---|---|
| (a) | **KNOWLEDGE (1)** [Terminology and concepts] | |
| | Some appropriate concepts and theories are considered. An attempt is made to use psychological terminology appropriately. | 1 |
| | Range of appropriate concepts and theories is considered. The answer shows a confident use of psychological terminology. | 2 |
| | **KNOWLEDGE (2)** [Evidence] | |
| | Some basic evidence is described and/or it is of peripheral relevance only and/or it is predominantly anecdotal. | 1 |
| | Appropriate psychological evidence is accurately described but is limited in scope and detail. | 2 |
| | Appropriate psychological evidence is accurately described and is reasonably wide-ranging and detailed. | 3 |
| | Appropriate psychological evidence is accurately described and is wide-ranging and detailed. | 4 |
| | **UNDERSTANDING** [What the knowledge means] | |
| | Some understanding of appropriate concepts and/or evidence is discernible in the answer. | 1 |
| | The answer clearly identifies the meaning of the theory/evidence presented. | 2 |
| | Maximum mark for part **(a)** | 8 |

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| | | |
|---|---|---|
| **(b)** | **EVALUATION ISSUES** [Assessing quality of data] | |
| | General evaluative comment OR issue identified OR evidence (max 2 marks if no analysis/cross-reference). | 1 |
| | Any two from: general evaluative comment/issue/evidence (max 3 marks if no analysis/cross-reference). | 2 |
| | Issue plus explanation of issue plus evidence. | 3 |
| | Two (or more) issues with elaboration and illustrative evidence. | 4 |
| | **ANALYSIS** [Key points and valid generalisations] | |
| | Key points (of evidence/study) are identified for a given issue (or number of issues), but no valid generalisations/conclusions are made. | 1 |
| | Key points (of evidence/study) are identified for a given issue (or number of issues), and valid generalisations/conclusions are made. | 2 |
| | **CROSS-REFERENCING** [Compare and contrast] | |
| | Two or more pieces of evidence are offered for a given issue but the relationship between them is not made explicit. | 1 |
| | Two or more pieces of evidence are offered for a given issue and the relationship between them (comparison or contrast) is explicit. | 2 |
| | **ANALYSIS** [Structure of answer] | |
| | The essay has a basic structure (issues, evidence, analysis and cross-referencing) and argument. | 1 |
| | Structure sound and argument clear and coherent (issues, evidence, analysis and cross-referencing). | 2 |
| | Maximum mark for part **(b)** | 10 |

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| | | |
|---|---|---|
| **(c)** | **APPLICATION** [Applying to new situations and relating to theory/method] | |
| | A suggestion (to apply psychological knowledge to the assessment request) has been attempted. | 1 |
| | A suggestion (to apply psychological knowledge to the assessment request) has been applied effectively. One detailed or several applications considered. | 2 |
| | **KNOWLEDGE (2)** [Evidence] | |
| | Basic evidence is referred to but not developed and/or it is of peripheral relevance only and/or it is predominantly anecdotal. | 1 |
| | Appropriate psychological theory/evidence is explicitly applied. | 2 |
| | **UNDERSTANDING** [What the knowledge means] | |
| | Some understanding (of the relationship between application and psychological knowledge) is evident in the answer OR there is clear understanding of the suggested application(s). | 1 |
| | The answer shows a clear understanding of the relationship between psychological knowledge and the suggested application AND there is clear understanding of the suggested application(s). | 2 |
| | Maximum mark for part **(c)** | 6 |
| | Maximum mark for **SECTION B** | 24 |

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## PSYCHOLOGY AND EDUCATION

### Section A

**1 (a) Explain, in your own words, what is meant by the term 'special educational need'. [2]**

Typically: EITHER where a child has a significantly greater difficulty in learning than most children of the same age OR a child has a disability that needs different educational facilities from those that schools generally provide OR educational ability of those who are statistically not normal, being at the top end of the normal distribution curve (gifted).

**(b) Describe <u>one</u> type of giftedness and <u>one</u> type of learning difficulty or disability. [6]**

**Types of giftedness:**

- **Mathematical giftedness** Exceptional ability in the mathematical domain is usually determined by a checklist such as **Straker's** (1983) *Mathematics for Gifted Pupils.*
- **Musical giftedness** Musical intelligence is the ability to use a fundamental set of musical elements, such as pitch, tone and rhythm.
- **Giftedness and information processing** Gifted people have been found to have specific information processing strategies. They learn quickly, transfer knowledge and skills to new situations with ease, are very aware of their own cognitive ability (meta-cognitive awareness), and process information flexibly.

**Types of difficulty:**

- **Dyslexia** accounts for 80% of all learning difficulties. Approx 3–5% of the population suffer from dyslexia. It affects boys more than girls. Can be auditory (dysphonetic dyslexia), visual (dyseidetic dyslexia) or mixed/classic. Features: letter reversal or rotation – the letter 'd' may be shown as 'b' or 'p'; missing syllables – 'famel' for 'family'; transposition of letters – 'brid' for 'bird'; problems keeping place when reading; problems pronouncing unfamiliar words.
- **Dyscalculia** affects mathematical performance affecting around 1% of the population. Sufferers frequently have normal or advanced language skills but experience problems with mathematical processes such as addition, subtraction, and dealing with money.
- **Dyspraxia** involves problems with fine and/or gross motor co-ordination leading to problems with physical activities in subjects like science and physical education.
- **Dysgraphia** is a disorder of writing which can involve the physical aspects of writing, e.g. pencil grip and angle.

Also acceptable: deafness, partial sight or any other physical disability.

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**(c) Describe <u>one</u> strategy for educating gifted children. [3]**

The two main approaches are segregation or integration. If children are segregated they could be taught on a one-to-one basis or be part of some small group. If they are integrated the teacher will need to show clear differentiation.

General approaches:

- **acceleration**: bright children are promoted to a higher class than normal. Good intellectually but bad socially and emotionally.
- **segregation**: bright children selected for particular schools. This may result in academic success in a particular ability but it is unfair, divisive and hard to implement.
- **enrichment**: done within a normal classroom and can involve extra-curricular activity and individualised learning programmes with independent learning possible. Some argue this is best as socially it is good and gives a much wider range of children opportunities to progress. In the USA Renzulli (1977) advocates an **enrichment triad model** (revolving door model) where children in top 25% on academic ability or creative potential or high motivation can be enriched – but only if they wish. Stanley's (1976) **radical acceleration** is for gifted mathematicians.

**2 (a) Explain, in your own words, what is meant by 'corrective strategy' for disruptive behaviour. [2]**

Typically: the modification of the behaviour of children that has already happened (rather than trying to prevent a behaviour from happening). Alternatively, responding to the child who has misbehaved in a way that will lessen the likelihood of that misbehaviour recurring.

**(b) Describe <u>one</u> type of disruptive behaviour and <u>one</u> cause for this type of disruptive behaviour. [6]**

Major **types** are:

- **conduct** (e.g. distracting, attention-seeking, calling out, out-of-seat);
- **anxiety and withdrawal**;
- **immaturity** and **verbal and physical aggression**;
- **bullying**.

Persistently disruptive children are often labelled as EBD (emotional and behavioural difficulties).

Main **causes**: genetic, maladaptive learning, diet, etc.

Answers could include the cause as in someone standing up in class and the effect is to distract others. It could include a cause such as ADHD, or the cause of ADHD being diet. Similarly the cause could be due to medication, such as Ritalin.

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**(c) Describe <u>one</u> way in which a disruptive behaviour may be corrected. [3]**

There are a number of **corrective** strategies: the modification of behaviour that has already happened (rather than trying to prevent behaviour from happening). Alternatively, responding to the child who has misbehaved in a way that will lessen the likelihood of that misbehaviour recurring.

- **Reasoning** – presenting to the child reasons for not engaging in deviant behaviour and/or reasons for engaging in alternative behaviour. Parke (1974) found reference to actual object was more successful in younger children for example. Preferable to punishment?
- **Behaviour modification techniques:**
  **Positive reinforcement** Can be intrinsic (internal) and so not directly under teacher control (but teacher could create situation leading to satisfaction, etc.) and extrinsic (external) such as attention, praise, stars, etc. Bijou and Sturges (1959) classify extrinsic reinforcers into five categories: consumables, manipulatables, visual and auditory stimuli, social stimuli and tokens. O'Leary and Becker (1967) used tokens to eliminate deviant responses with much success, although others (Kazdin and Bootzin, 1972) did not. Premack (1965) outlines the 'Premack Principle' where children behaving appropriately engage in a reinforcing activity – one that the child enjoys. Michael (1967) describes seven principles one should be wary of when attempting to control behaviour through consequences.
  **Modelling** Punishing one student may inhibit the same behaviour in another; rewarding one student may lead to copying behaviour by another.
  **Punishment** Can be (1) presentation of unpleasant consequences such as facial gestures, reprimands, detention, time out, physical punishment, etc. or (2) removal of pleasant consequences. Many studies illustrate all these variations. For example Bratner and Doherty (1983) distinguish three types of time out: isolation, exclusion and non-exclusion.

## Section B

**3 (a) Describe ways in which educational performance is assessed in schools. [8]**

Assessment varies between countries so there is no 'fixed' format. What is required is any form of assessment that may be used in schools. This could be at a simple level such as a written piece of work (such as an essay) or a project or anything that teachers do as part of their work. It may be that candidates can focus on national examinations such as SATs, GCSEs and GCEs or it may be they focus on tests used by psychologists as a diagnostic aid. Typical IQ tests are Stanford-Binet and WAIS and WISC.

**(b) Evaluate ways in which educational performance is assessed in schools. [10]**

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

- the ethics of testing;
- reliability and validity;
- the implications of testing for teachers;
- the implications tests have for young children;
- the assumptions tests make about human behaviour.

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**(c) Giving reasons for your answer, suggest how the educational abilities of children of different ages could be assessed. [6]**

*Mark scheme guidelines apply in that any reasonable suggestion is acceptable*.
Most likely:
It could be an intelligence test (e.g. WISC or BAS) or some similar type of test.
It could be a screening test for dyslexia, dyscalculia or related ability.
Each suggestion should be marked on its individual merits as names of some tests vary from one country to another.

**4 (a) Describe how <u>one</u> psychological perspective has been applied to learning. [8]**

Generally behaviourists focus on behaviour, cognitivists on thinking and humanists on the person.

Candidates will be tempted to provide details of early **behaviourist approach** (e.g. Pavlov and Skinner). Although this is legitimate in that it aids *understanding*, the question specifically requires **applications**, and so this should not be credited under *knowledge*. Any application of learning theory is legitimate. Possibilities include: direct application of **positive and negative reinforcement** to shape behaviour; possible use of schedules. **Programmed learning** as an approach to teaching and learning such as Bloom's **mastery learning** and Keller's **personalised system of instruction**. Rote learning versus discovery learning. Use of computers. **Behaviour modification** applied to (a) children who misbehave and (b) children who are disadvantaged. **Social learning** (e.g. Bandura) using teachers or other children as role models.

For the **cognitive approach** typically candidates will include the work of Piaget. His contribution is significant and covers a wide range of aspects such as readiness for being taught mathematics and the type of book a child should read at a particular age. More typically will be the **readiness approach**, a central component of **discovery learning**. If a candidate focuses on his theory of cognitive development without explicitly linking it to education, this strategy should receive no credit. Piaget is not the only relevant psychologist. Gagne (1977) outlines a number of **cognitive strategies**; Bruner (1966) has looked at **discovery learning**; Ausubel (1977) proposes a **theory of meaningful verbal learning (subsumption)**.

For the **humanistic approach** (e.g. Rogers, 1951) every individual is the centre of a continually changing world of experience. Four features are at the heart: **affect** (emphasis on thinking and feeling, not just information acquisition); **self concept** (children to be positive about his/her self); **communication** (attention to positive human relationships) and **personal values** (recognition and development of positive values). Maslow (1970) advocates **student-centred teaching** where teachers are learning facilitators rather than didactic instructors. Dennison (1969) advocates the **open classroom**. Dunn and Griggs (1988) propose that each child has a **personal and unique learning style** and so traditional education should change radically providing a 'staggering range of options'. Johnson et al. (1984) believe students see education to be competitive when it should be **co-operative**, involving circles of knowledge, learning together and student team learning.

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**(b) Evaluate how <u>one</u> psychological perspective has been applied to learning. [10]**

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

- the strengths and weaknesses of psychological perspectives;
- the implications the perspectives have for teachers;
- whether theory applies in practice;
- contrasting alternative perspectives.

**(c) Giving reasons for your answer, suggest how <u>one</u> psychological perspective could be used to teach very young children. [6]**

*Mark scheme guidelines apply in that any reasonable suggestion is acceptable*.
Most likely: candidates will select a perspective and outline some aspect as indicated in part **(a)**.

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## PSYCHOLOGY AND ENVIRONMENT

### Section A

**5 (a) Explain, in your own words, what is meant by the term 'climatological determinism'. [2]**

Typically: where behaviour is determined by the climate and/or weather. It can involve probabilism and possibilism.

**(b) Describe <u>two</u> studies showing the negative effects of climate and/or weather on performance. [6]**

**Performance**: lots of lab studies show conflicting results mainly due to variations in design. Also many field studies e.g. Pepler (1972) in classrooms and Adam (1967) with soldiers. Individual differences. Bell suggests an **arousal response** (inverted U theory); Provins (1966) suggests differing **core temperatures** and that heat affects attention. Wyndham believes in **adaptation levels**.

**(c) Suggest <u>one</u> way in which the negative effects of climate and/or weather on performance can be reduced. [3]**

Most likely:
- use of air conditioning; avoidance of extremes of temperature.
- also SAD (seasonal affective disorder) treated using a light box (Watkins, 1977).
- studies looking at acclimatisation may be a possibility and telling people about the negative effects gives perceived control.

**6 (a) Explain, in your own words, what is meant by 'psychological intervention before technological catastrophe'. [2]**

Two aspects needed here:
- important to make a distinction between **disasters** (natural causes) and **catastrophes** (human causes). Catastrophe means there is some human error/fault and blame can be attributed;
- also needs awareness of intervention (before an event, not after), which must be psychological, and not simply emergency services.

**(b) Describe <u>one</u> natural disaster. [3]**

Any natural disaster accepted, whether recent or in the past. It may be well known or it may be specific to a particular country. Treat each answer on its individual merits. Technological catastrophe is not acceptable.

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**(c) Describe <u>one</u> way in which psychologists can help *before* a catastrophe and one way in which they can help *after*. [6]**

Before:
Psychologists could look at:

- **preparation for an event** or whether people think it will happen to them (e.g. Stallen, 1988 and the study at a Dutch chemical plant).
- **attitudes** toward potential danger 'it won't happen to me'; fear of flying, etc.
- **evacuation messages** and plans for escape to **prevent panic** e.g. evacuation messages (e.g. Loftus) or the follow me/follow directions dilemma of Sugiman and Misumi (1988).
- **emergency plans** such as those issued by the FEMA (USA) for earthquakes.
- some candidates may look at pre-traumatic stress.

After:

- **behaviour after an event**, typically post-traumatic stress (e.g. Herald of Free Enterprise information). Main solution is systematic desensitisation or some form of counselling. Social support may also be suggested, but this is often a weak alternative. Also PTSD in emergency workers is relevant.

## Section B

**7 (a) Describe what psychologists have discovered about noise. [8]**

Candidates may well begin with definitions and types. As with other environment areas, the syllabus states performance, social behaviour and health.

- **Health** McCarthy et al. (1992) noise affects the immune system; Doring et al. (1980) noise causes ulcers; Cohen et al. (1986) found increased blood pressure in children at school on flight path. Many other studies with similar findings. Is no direct link – noise may be stressful and stress causes health problems. Candidates may also look at mental health.
- **Performance** Three categories to consider: (a) effects during exposure; (b) after-effects; (c) effects on children. (a) Lab studies have shown mixed results with a wide range of variables. Effect depends on: volume, predictability and controllability; type of task performed; stress tolerance; individual personality. (b) Even if performance is not affected at time of study, effect of noise may continue for some time and hinder later performance e.g. Glass et al. (1969); Sherrod et al. (1977). (c) Hambrick-Dixon (1986) and Cohen et al. (1986) compared children from noisy and quiet schools near Los Angeles airport. Found those from noisy environment suffered from learned helplessness, lack of achievement and distractibility. Evans et al. (1993) study of children near Munich airport.
- **Social behaviour: aggression**: likely to be popular as there are many unethical lab studies involving electric shock e.g. Geen and O'Neal (1969); Donnerstein and Wilson (1976). **Helping**: also popular with both lab and natural studies by Matthews and Canon (1975) and Page (1977). Some candidates may look at **attraction** but evidence here is not conclusive.

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**(b) Evaluate what psychologists have discovered about noise. [10]**

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

- points about defining and categorising noise/air pollution;
- cultural and individual differences in perception of problem;
- comparing and contrasting laboratory with natural studies;
- the methods psychologists use to gain their evidence.

**(c) Giving reasons for your answer, suggest ways in which positive sound, such as music, can be beneficial. [6]**

*Mark scheme guidelines apply in that any reasonable suggestion is acceptable*.
Candidates could focus on:

- Music played in doctors'/dental waiting rooms (and even whilst undergoing treatment) to distract patients from worry. E.g. Chafin (2004) listening to classical music can reduce blood pressure.
- Muzak, used in shops, supermarkets, etc. to encourage people to buy certain products.
- The use of music in studying (Mozart effect).
- Music and mood: North (2003) found classical music led to more profit in restaurant. Fox (1983) found that industrial music helps production-line workers.
- Studies on animals show cows produce more milk and hens lay more eggs.

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**8 (a) Describe what psychologists have found out about environmental cognition. [8]**

Definitions: environmental cognition is the way we acquire, store, organise and recall information about locations, distances and arrangements of the great outdoors (Gifford, 1997). A cognitive map is a pictorial and semantic image in our head of how places are arranged (Kitchin, 1994). Way-finding is successful navigation.

Methods: main ones are sketch maps, recognition tasks and multidimensional scaling.

Candidates are likely to mention the work of Lynch who found **five common elements**: *Paths:* roads, walkways, rivers (i.e. routes for travel); *Edges:* non-travelled lines e.g. fences, walls; *Districts:* larger spaces; *Nodes:* places, junctions, crossroads, intersections where people meet; *Landmarks:* distinctive places people use for reference points e.g. tallest building, statue, etc.

**Acquisition of maps**: main reference is likely to be Piaget and his work on Swiss mountains. Piaget has support (e.g. Acredolo, 1977) but critics too such as DeLoache (1987) who says 3-year-olds have spatial cognition. Children acquiring maps could be the same for adults in a new situation: landmarks are noticed and remembered; paths between landmarks are constructed; landmarks and paths organised into clusters; clusters and features co-ordinated into overall framework.

**Errors in maps**: (a) Euclidean bias: people assume roads etc. are grid-like: they are not e.g. Sadalla and Montello (1989). (b) super-ordinate scale bias: We group areas (e.g. counties) together and make judgement on area rather than specific place e.g. Stevens and Coupe (1978); (c) segmentation bias: Allen and Kirasic (1985) we estimate distances incorrectly when we break a journey into segments compared with estimation as a whole. Also maps are often incomplete: we leave out minor details; we distort by having things too close together, too far apart or misaligning e.g. people over-estimate the size of familiar areas; we augment – add non-existent features.

**Gender differences**: Bryant et al. (1991) found that men are much better than women in the acquisition, accuracy and organisation of spatial information. This could be due to experience. Studies by Garling et al. (1981) in Sweden; Kirisic et al. (1974) men better than women at locating places difficult to locate. Appleyard (1976) found overall accuracy was equal, but women emphasised districts and landmarks whereas men emphasised path structure. Holding (1992) found men began with paths and nodes followed by landmarks; women began with landmarks. Overall conclusion is that there is a difference in style (not that one is better than the other). However in reading a road map, based on paths and nodes and not landmarks, men will have an advantage because of their preferred style.

Candidates could also legitimately look at animals and cognitive maps.
Candidates could also legitimately look at the scenic environment.

**(b) Evaluate what psychologists have found out about environmental cognition. [10]**

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

- the methods psychologists use to study cognitive maps;
- laboratory versus real-life studies;
- errors made in cognitive maps;
- competing theoretical explanations.

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**(c) Imagine you are required to design a 'you are here' map to help way-finding. Giving reasons for your answer, suggest what important features your map would include. [6]**

*Mark scheme guidelines apply in that any reasonable suggestion is acceptable*.
Most likely: Levine (1982) looked at 'you are here' maps. He suggests two aspects which significantly improve a map:

- structure mapping – the map should reflect the layout and appearance of the setting it represents. Three subsections: the map should be placed near an asymmetrical feature so more than one building is visible; the map should include a landmark which is visible in reality (then person can match the two and plan a route); the map has the map itself drawn on it.
- orientation – the map should be aligned the same way as the setting (building on right of map is on right in reality) and it should have forward equivalence (the top of the map should be straight ahead).

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## PSYCHOLOGY AND HEALTH

### Section A

**9 (a) Explain, in your own words, what is meant by 'sources of stress'. [2]**

Most likely: any stressor that is placing demands on an individual who perceives that he or she cannot cope.

**(b) Describe <u>two</u> ways in which stress can be measured. [6]**

Any two from:
There are two main **measures**: physiological and psychological:

- Physiologically by recording devices;
- Physiologically by sample tests;
- Psychologically by questionnaire based on life events;
- Psychologically by questionnaire based on daily hassles;
- Psychologically by questionnaire based on personality;
- Psychologically by questionnaire based on other causal factors (such as work) e.g. Professional Life Stress Scale.

**(c) Describe <u>one</u> way in which stress can be managed. [3]**

Most likely:

- Coping: problem-focused coping; emotion-focused coping.
- Medical/pharmacological solutions: benzodiazepines (trade names valium, librium, etc.); beta-blockers (e.g. inderal) reduce physiological arousal and feelings of anxiety by blocking neurones stimulated by adrenaline.
- Psychological solutions: (behavioural/cognitive strategies) can include progressive relaxation (Jacobsen, 1938); systematic desensitisation (Wolpe, 1958); biofeedback; and modelling. Psychological solutions: (cognitive/behavioural) can include cognitive restructuring (Lazarus, 1981); rational-emotive therapy (Ellis, 1962) and multi-modal therapy (Lazarus, 1981); imagery (Bridge et al., 1988).
- Alternative strategies involving meditation, hypnosis or yoga.
- Providing social support may also help (e.g. Cohen and Willis, 1985).

**10 (a) Explain, in your own words, what is meant by 'gender differences in health behaviour'. [2]**

Typically: health behaviour can involve techniques or strategies used to help people live more healthily. For 2 marks there must be an acknowledgement of gender **and** how behaviours may differ.

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**(b) Describe <u>one</u> developmental difference and <u>one</u> gender difference in health behaviour. [6]**

*Mark scheme guidelines apply in that any reasonable suggestion is acceptable.*

**Developmental:**

Most likely: FAS (foetal alcohol syndrome) is where newborn babies are deformed and have various abnormalities due to the mother drinking alcohol during pregnancy. But, any relevant developmental difference can be included.

**Gender:**

There are gender differences and relationship differences. For example, divorced people are much more likely to be admitted to a US mental hospital (1183 per 100 000) than those who are married (136 per 100 000). The family also has a bearing. One gender difference is lupus (90% women in UK) but also cultural differences in lupus too.

**(c) Describe <u>one</u> cultural difference in health behaviour. [3]**

*Mark scheme guidelines apply in that any reasonable suggestion is acceptable.*

Abnormality varies from culture to culture. For example, Russia has 51 per 10 000 cases of schizophrenia; Denmark has only 15 per 10 000. Not only are there different abnormalities, but there are very different treatment methods too.

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## Section B

**11 (a) Describe what psychologists have learned about the patient-practitioner relationship. [8]**

Answers could focus on:

**Interpersonal skills: non-verbal communication:**

- Argyle (1975) emphasises the importance of non-verbal communication.
- Classic study is McKinstry and Wang (1991) looking at the way a medical practitioner is dressed.

**Interpersonal skills: verbal communication:**

- Ley (1988) investigated what people remember of real consultations by speaking to people after they had visited the doctor. They were asked to say what the doctor had told them to do and this was compared with a record of what had actually been said.
- McKinlay (1975) carried out an investigation into the understanding women had of the information given to them by health workers on a maternity ward. On average, each of the terms was understood by fewer than 40% of the women.

**Patient-practitioner diagnosis and style:**

- Savage and Armstrong (1990) compared a sharing consulting style (patient-centred) with a directive consulting style (doctor-centred).
- Marteau (1990) found patients prefer 10% chance of survival rather than 90% chance of non-survival.
- Robinson and West (1992) found people gave more information to a computer than to a doctor.

**Over-use of services**: Munchausen's Syndrome and hypochondriasis.

**Under-use of services:**

- Pitts (1991a) suggests persistence of symptoms; we are likely to take a 'wait and see' approach if we get ill and we only seek advice if the symptoms last longer than expected. Expectation of treatment: we are only likely to seek medical advice if we think it will do some good.
- Safer (1979) found people delayed seeking treatment for up to two months.

**(b) Evaluate what psychologists have learned about the patient-practitioner relationship. [10]**

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

- how psychologists gained their evidence;
- reasons why proposal of theories/models is difficult in this area;
- implications the evidence has for health care;
- psychological perspectives related to counselling situations.

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**(c) Using your psychological knowledge, suggest ways in which the patient-practitioner relationship can be improved. [6]**

*Mark scheme guidelines apply in that any reasonable suggestion is acceptable*.
Most likely possibilities include:

- changing physician behaviour (DiMatteo and DiNicola, 1982); sending doctors on training courses;
- changing communication style (Inui et al., 1976);
- change information presentation techniques (Ley et al., 1982);
- have the person state they will comply (Kulik and Carlino, 1987);
- provide social support (Jenkins, 1979) and increase supervision (McKenney et al., (1973).
- Behavioural methods: tailor the treatment; give prompts and reminders; encourage self-monitoring; provide targets and contracts.

Candidates could focus either on improving the patient side or that of the practitioner. Practitioner is more logical as they could attend training courses (e.g. Inui) or they could be more patient-centred rather than doctor-centred. Any appropriate suggestion based on psychological evidence is acceptable.

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**12 (a) Describe what psychologists have discovered about adherence to medical advice. [8]**

Lots of possibilities here from a vast area. Candidates could focus on one or more of the following:

**Types of non-adherence**: failure to take medication; failure to arrive for recommended appointment.

**Measuring non-adherence:**

**Subjective:**

- ask practitioner to estimate;
- ask patient to estimate (self report);
- estimate of family member/medical personnel.

**Objective:**

- quantity accounting (pill count) where number of pills remaining is measured;
- medication dispensers which record and count times when used;
- biochemical tests such as blood or urine sample;
- tracer/marker method add tracer to medication e.g. riboflavin (vitamin B2) fluoresces under ultraviolet light;
- recording number of appointments kept.

**Why patients do and don't adhere to advice:**

**Disease/medical treatment programmes:** severity of illness; side-effects of treatment; duration of treatment; complexity of treatment; people are less likely to adhere if the treatment requires a change in long-standing habits and behaviours; expense or cost.

**Personal characteristics:** cognitive and emotional factors; social support: adherence is increased if there is appropriate support from family and friends and whether or not the supporters are stable. However, family and friends can have a negative effect, particularly if the patient's family is large; personal beliefs/models.

- Fear of treatments: Leventhal's (1970) parallel response model. People have two beliefs 'danger control' (seek help because their health is in danger) or 'fear control' (seek ways to reduce fear so avoid treatment, get drunk, etc.).
- Common sense: Leventhal (1982) model where patients' own views about their illness can contradict doctors' instructions and treatment.
- Becker and Rosenstock's (1984) health belief model is relevant. Patients weigh up the pros or benefits of taking action against the cons or barriers to taking action and make a decision based on their assessment of these factors.
- Fishbein and Ajzen's theory of reasoned action (1974) is appropriate.
- Stanton's (1987) model of adherence behaviour is pertinent.

**Cultural factors**

**Relationship between person and medical service:** speed of service; practitioners' personality: Byrne and Long (1976) distinguish between: doctor-centred and patient-centred personality. Savage and Armstrong (1990) studied same thing; male/female practitioner: Hall et al. (1994) found female doctors asked more questions of patients and made more positive statements to patients. Patients talked more to female doctor.

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**(b) Evaluate what psychologists have discovered about adherence to medical advice. [10]**

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

- how psychologists gained their evidence;
- individual differences;
- cultural differences;
- the usefulness/applications of adherence research;
- implications for patient's health and/or practitioner satisfaction.

**(c) Giving reasons for your answer, suggest ways in which a medical practitioner can measure adherence to medical advice. [6]**

*Mark scheme guidelines apply in that any reasonable suggestion is acceptable*.
Most likely:

**Subjective:**

- ask practitioner to estimate;
- ask patient to estimate (self report);
- estimate of family member/medical personnel.

**Objective:**

- quantity accounting (pill count) where number of pills remaining is measured;
- medication dispensers which record and count times when used;
- biochemical tests such as blood or urine sample;
- tracer/marker method: add tracer to medication e.g. riboflavin (vitamin B2) fluoresces under ultraviolet light;
- recording number of appointments kept.

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## PSYCHOLOGY AND ABNORMALITY

### Section A

**13 (a) Explain, in your own words, what is meant by the term 'abnormality'. [2]**

Typically: abnormality, in the sense of something deviating from the normal or differing from the typical (such as an aberration), is a subjectively defined behavioural characteristic, assigned to those with rare or dysfunctional conditions.

**(b) Describe <u>two</u> definitions of abnormality. [6]**

Definitions of abnormal behaviour:

- **Deviation from statistical norms**: this is simply deviating from the norm or average as in a normal distribution curve. Anyone at either end of the curve is abnormal or atypical.
- **Deviation from social norms**: the norms of a society have expectations of how people should think and how they should behave.
- **Deviation from ideal mental health**: if the characteristics of ideal mental health could be determined, then anyone not possessing those characteristics, or deviating from them, by definition would be abnormal.
- **Failure to function adequately**: suggests that people who experience personal distress or discomfort will seek the help of a health care professional.

**(c) Classify <u>one</u> abnormality of your choice. [3]**

This could be general such as 'psychoses' and 'neuroses' or could be specific such as mania or depression or manic depression. Can be any abnormality as appears on DSM or ICD. Most likely is schizophrenia, affective disorder, anxiety disorders such as obsessive-compulsive disorder, abnormal affect due to trauma such as amnesia and fugue. These are more likely because they are topic areas for this syllabus.

**14 (a) Explain, in your own words, what is meant by 'reducing the effects of trauma'. [2]**

Typically: following a traumatic event, most people recover. In some people though, traumatic experiences set off a reaction that can last for a few days, many months or years. Crucially any answer must also address the 'reducing' part and acknowledge some form of overcoming, controlling or managing.

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**(b) Describe <u>two</u> types of trauma. [6]**

Most likely focus will be on post-traumatic stress disorder (PTSD), amnesia and fugue.
**Psychogenic fugue** is leaving one's home, work and life and taking a new identity with loss of memory of the previous identity.
**Psychogenic amnesia** is losing one's memory because of psychological reasons. Amnesia can be

- **localised** (e.g. loss for 3 days after accident);
- **selective** (e.g. some but not all events);
- **continuous** (e.g. permanent);
- **generalised** (loss of all memory of one's life).

**PTSD** is a stress response caused by events outside the range of normal human experience. Characteristics of PTSD include:

- **Flashbacks and nightmares**: you find yourself reliving the event, again and again;
- **Avoidance and numbing**: it can be just too upsetting to relive your experience over and over again;
- **Being 'on guard'**: you find that you stay alert all the time, as if you are looking out for danger;
- **Other symptoms**: muscle aches and pains, diarrhoea, irregular heartbeats, headaches, feelings of panic and fear, depression, drinking too much alcohol, using drugs (including painkillers).

**(c) Describe <u>one</u> way in which a type of trauma described in (b) may be reduced. [3]**

It depends on the type of trauma.
Most likely: PTSD which is best treated with systematic desensitisation or cognitive behaviour therapy. This can include:

- **Exposure therapy** which helps people face and control their fear. It exposes them to the trauma they experienced in a safe way. It uses mental imagery, writing, or visits to the place where the event happened. The therapist uses these tools to help people with PTSD cope with their feelings.
- **Cognitive restructuring** which helps people make sense of the bad memories. Sometimes people remember the event differently from how it happened. They may feel guilt or shame about what is not their fault. The therapist helps people with PTSD look at what happened in a realistic way.

For amnesia/fugue:

- hypnosis is one possibility. Sometimes this is helped with sodium amytal and sodium pentothal.
- Psychoanalysis - uses dream analysis, interpretation and other psychoanalytic methods to retrieve memories; may also involve placing patients in threatening situations where they are overwhelmed with intense emotion.
- Medication - benzodiazepines and other hypnotic medications; the patient is urged to relax and attempt to recall memories.
- Psychotherapy, a type of counselling, is the main treatment for **dissociative disorders**. This treatment uses techniques designed to encourage communication of conflicts and increase insight into problems.
- Cognitive therapy (as above) focuses on changing dysfunctional thinking patterns and resulting feelings and behaviours.

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## Section B

**15 (a) Describe what psychologists have discovered about schizophrenia. [8]**

Term from Greek schzein (split) and phren (mind).
Candidates could focus on **symptoms**:
**'Positive' symptoms (very common) include:**
- Hallucinations - hearing, smelling, feeling or seeing something that isn't there.
- Delusions - believing something completely even though others don't believe it.
- Difficulty thinking – finding it hard to concentrate and drifting from one idea to another.
- Feeling controlled – thoughts are vanishing, or that they are not your own, being taken over by someone else.

**'Negative' symptoms (not very common) include:**
- Loss of interest, energy and emotions; feeling uncomfortable with other people.

Candidates could focus on **types**:
- **Hebephrenic**: incoherence, disorganised behaviour, disorganised delusions and vivid hallucinations.
- **Simple**: gradual withdrawal from reality.
- **Catatonic**: impairment of motor activity, often holding same position for hours/days.
- **Paranoid**: well organised, delusional thoughts (and hallucinations), but high level of awareness.
- **Undifferentiated/untypical**: for all the others who do not fit the above.

Candidates could focus on **explanations**:
- **Behavioural**: due to conditioning and observational learning.
- **Psychodynamic**: regression to oral stage.
- **Families** also blamed for schizophrenia; as are twins.
- **Cognitive**: breakdown in ability to attend selectively to stimuli in language, etc.
- **Genetics** also play a role.

Candidates could focus on **treatments**:
- Sensky (2000) has used cognitive behaviour therapy in the treatment of schizophrenia.
- Paul and Lentz (1977) found that the use of tokens was successful in reducing bizarre motor behaviours and in improving social interactions with staff and other patients.
- The first generation of **anti-psychotics** (or neuroleptics) began in the 1950s e.g. chlorpromazine. Then came **atypical anti-psychotics** which acted mainly by blocking dopamine receptors. The third generation of drugs, such as Aripiprazole, are thought to reduce susceptibility to metabolic symptoms present in the second generation atypical anti-psychotics.

**(b) Evaluate what psychologists have discovered about schizophrenia. [10]**

*NOTE: any evaluative point can receive credit; the hints are for guidance only.*
- points about defining and categorising abnormality;
- cultural and individual differences;
- comparing and contrasting explanations of cause;
- usefulness of therapies;
- implications for individual and society.

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**(c) You are a medical practitioner. Giving reasons for your answer, suggest how you would treat a person with schizophrenia. [6]**

*Mark scheme guidelines apply in that any reasonable suggestion is acceptable.*

- Sensky (2000) has used cognitive behaviour therapy in the treatment of schizophrenia.
- Paul and Lentz (1977) found that the use of tokens was successful in reducing bizarre motor behaviours and in improving social interactions with staff and other patients.
- The first generation of **anti-psychotics** (or neuroleptics) began in the 1950s e.g. chlorpromazine. Then came **atypical anti-psychotics** which acted mainly by blocking dopamine receptors. The third generation of drugs, such as Aripiprazole, are thought to reduce susceptibility to metabolic symptoms present in the second generation atypical anti-psychotics.

**16 (a) Describe what psychologists have found out about abnormal avoidance and need. [8]**

Candidates can focus on **either** avoidance **or** need **or** both.
**Need**: will include problems such as compulsive gambling, pyromania and kleptomania but any other need is legitimate.

- **Kleptomania** is the condition of not being able to resist the urge to collect or hoard things. People with this disorder are compelled to steal things, generally things of little or no value. Kleptomania is frequently thought of as being a part of obsessive-compulsive disorder, since the irresistible and uncontrollable actions are similar to the frequently excessive, unnecessary and unwanted rituals of OCD. *Compulsive* gambling also.
- **Pyromania** is an impulse to start fires deliberately to relieve tension and typically includes feelings of gratification or relief afterwards. Pyromaniacs start fires to induce euphoria, and often tend to fixate on institutions of fire control like fire stations and firefighters.
- **Problem gambling** is an urge to gamble despite harmful negative consequences or a desire to stop. Severe problem gambling may be diagnosed as clinical **pathological gambling** if the gambler meets certain criteria.

**Avoidance**: any phobia appropriate here as would be elective withdrawal.

- **Phobias**: agoraphobia, social phobia and specific phobia (many types). Explanations provided by behavioural and psychodynamic approaches.

Candidates may focus on suggested explanations or on typical behaviour/symptoms.

**(b) Evaluate what psychologists have found out about abnormal avoidance and need. [10]**

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

- points about defining and categorising abnormal behaviours;
- cultural and individual differences in need/avoidance;
- comparing and contrasting explanations;
- implications for person with abnormal need/avoidance.

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**(c) Giving reasons for your answer, suggest how abnormal avoidance may be treated. [6]**

*Mark scheme guidelines apply in that any reasonable suggestion is acceptable*.

- **Systematic desensitisation** is a therapy based on the principles of classical conditioning. It was developed by Wolpe in 1958, specifically for counter-conditioning fears, phobias and anxieties. The idea behind systematic desensitisation is to replace the conditioned fear which is maladaptive, with one of relaxation, which is an adaptive and desirable response. The pairing of the feared stimulus with relaxation induces the desensitisation.
- Ost and Westling (1995) investigated the effectiveness of **cognitive behaviour therapy** (CBT), in the treatment of panic disorder. The out-patients in their sample were treated over 12 weekly sessions. The results revealed a significant reduction in the number of panic attacks in the patients, who were also panic-free at the follow-up. They also found that the treatment led to reductions in generalised anxiety, depression and cognitive misinterpretations.

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## PSYCHOLOGY AND ORGANISATIONS

### Section A

**17 (a) Explain, in your own words, what is meant by the human resource term 'reward systems'. [2]**

Typically: a reward system consists of intrinsic and extrinsic rewards used by an organisation.

**(b) Describe <u>two</u> reward systems. [6]**

Most likely: **Intrinsic rewards**: challenge, achievement and success. **Extrinsic rewards**: pay, promotion and fringe benefits.

- additional responsibility and enhanced conditions;
- material reward: salary, commission, bonuses, promotions and competitions/incentive schemes could be used against sales objectives such as volume, profitability, new account development;
- material reward: merchandise incentives, company car etc.

Many theorists such as Maslow and McGregor place money low down on the list of motivators. For McGregor, praise and recognition are much more important. Also praise, respect, recognition, empowerment and a sense of belonging are said to be far more powerful motivators than money.
Mayo believed that workers could be motivated by acknowledging their social needs and making them feel important.
Robbins and Judge (2007) identify five motivators:

- recognition of employees' individual differences, and clear identification of behaviour deemed worthy of recognition;
- allowing employees to participate;
- linking rewards to performance;
- rewarding of nominators;
- visibility of the recognition process.

**(c) Outline <u>one</u> problem with a reward system. [3]**

Most likely:

- rewards may or may not improve motivation;
- rewards may or may not improve production;
- financial rewards may not improve job satisfaction.

Any other appropriate problem to receive credit.

**18 (a) Explain, in your own words, what is meant by 'physical conditions of work environments'. [2]**

Typically: Riggio (1990) describes **physical conditions** to include illumination, temperature, noise, motion, pollution and aesthetic factors such as music and colour.

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**(b) Briefly describe <u>two</u> physical conditions of a work environment. [6]**

Riggio (1990) divides work conditions into **physical conditions** such as illumination, temperature, noise, motion, pollution and aesthetic factors such as music and colour. Vibration, body movement and posture (e.g. seating or lifting) can be added to the list of physical conditions. The amount of evidence available for each of these, particularly physical conditions, is vast. However, it should not be too difficult to judge whether the evidence has psychological foundation rather than being largely anecdotal.
Candidates may also outline a **mechanistic design** (making French fries at McDonalds has 19 distinct steps and so has distinct rules to follow, but little satisfaction).

**(c) Describe <u>one</u> way in which the physical conditions of work environments could be improved. [3]**

Most likely:
The modification of any physical factor included above such as: illumination, temperature, noise, motion (vibration), pollution, aesthetic factors (e.g. music and/or colour). Can also include work-space/office layout.

## Section B

**19 (a) Describe what psychologists have discovered about the selection of people for work. [8]**

Main requirement is a consideration of the procedures involved in *personnel recruitment* (the means by which companies attract job applicants), *personnel screening* (the process of reviewing information about job applicants to select workers) and *personnel selection* (via interviewing).
The process could include:

- Production of **job analysis** and **job description**.
- Advertising job via appropriate source(s).
- Production of an **application form**. This could be: standard, weighted, or a Biographical Information Blank.
- **Screening tests** could test: cognitive ability, mechanical ability, motor/sensory ability, job skills/knowledge, personality, test specific to job/organisation.
- Many methods exist for **analysis** of screening tests and/or applications. Any method should be reliable: via test re-test or internal consistency (how items correlate) and valid: via content validity or criterion-related validity.
- **Interviews**: many studies and many aspects. Best is to: use structured interviews; make sure that interview questions are job-related; provide for some rating or scoring of applicant responses; use trained interviewers; consider using panel interviews; use the interview time efficiently.
- Follow-up methods: references and letters of recommendation.
- Consideration throughout of equal opportunities.

Most likely:
Once all information about applicants has been gathered, how is a final decision made? Many decisions are subjective, but other strategies operate:

- multiple regression model: combines each factor statistically;
- multiple cut-off model: applicants must obtain a minimum score on each factor to be successful;
- multiple hurdle model: decisions made at various stages (e.g. end of day 1 if interview is two-day or even short-listing for interview.

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**(b) Evaluate what psychologists have discovered about the selection of people for work. [10]**

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

- issues concerning reliability and validity;
- assumptions made by appraisal techniques;
- implications of HRM practices for leader-worker relationships;
- the usefulness of HRM practices.

**(c) Giving reasons for your answer, suggest what psychometric tests you, the personnel officer, would give to candidates applying for a job. [6]**

*Mark scheme guidelines apply in that any reasonable suggestion is acceptable*.
Answers are most likely to focus on one or more aspects indicated in part **(a)**.

**20 (a) Describe what psychologists have discovered about motivation to work. [8]**

A number of theories to choose from. Acceptable is a range with less detail or fewer in more detail.

**Need theories** of motivation: individual needs.

- Maslow's **need-hierarchy** (1965): five-tier hierarchy: physiological, safety, social, esteem and self-actualisation. Starting with physiological, each must be satisfied in order. Lots of attention received, but not much support; not a good predictor of behaviour and no useful application.
- Alderfer's **ERG theory** (1972). Three levels: existence, relatedness and growth. Little support.
- McClelland's **achievement-motivation theory** (1961): three work-related needs: need for achievement (get job done, success, etc.); need for power (direct and control others; be influential); need for affiliation (desire to be liked and accepted; friendship). Methodology used: TAT (thematic apperception test): look at picture then relate story it suggests. Is a projective test and scoring can be unreliable. Good application: match profiles to jobs; achievement training programmes.

**Job design theories**: if a job is well designed and satisfying needs it results in good motivation.

- Herzberg's **two factor theory** (1966): job satisfaction and job dissatisfaction are two separate factors. **Motivators** include responsibility, achievement, recognition, etc. and job satisfaction. **Hygiene** factors include supervision, salary, conditions, which may lead to job dissatisfaction. Some support but led to job enrichment (redesigning jobs to give workers greater role).
- **Job characteristics model** (Hackman and Oldham, 1976): workers must perceive job as **meaningful** (skill variety, task identity and task significance), **responsible** (autonomy) and **gain knowledge of outcome** (feedback). These can be scored. Also JDS (job diagnostic survey) is questionnaire measuring above characteristics.

**Rational (cognitive) theories**: people weigh costs and rewards of job.

- **Equity theory** (Adams, 1965) fair treatment leads to motivation. Worker brings inputs (skills, etc.) and expects outcomes (pay, etc.). Equality determined by comparison with others.
- **VIE theory** (or expectancy, Vroom, 1964): workers are rational and make decisions and are guided by potential costs (negative outcomes) and rewards (positive outcomes).

**Goal setting theory** (Locke, 1968): for motivation goals must be specific, clear and challenging.

**Reinforcement theory** (traditional): positive and negative reinforcers and punishment.

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**(b) Evaluate what psychologists have discovered about motivation to work. [10]**

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

- Comparing and contrasting theoretical explanations;
- the measures used to gain data;
- the assumptions made about human behaviour;
- individual differences in motivation to work.

**(c) Using your psychological knowledge, suggest what the management of any company could do to motivate its employees through non-financial reward. [6]**

*Mark scheme guidelines apply in that any reasonable suggestion is acceptable*.

Many theorists such as Maslow and McGregor place money low down on the list of motivators. For McGregor, praise and recognition are much more important. Also praise, respect, recognition, empowerment and a sense of belonging are said to be far more powerful motivators than money.

Mayo believed that workers could be motivated by acknowledging their social needs and making them feel important.

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