



**General Certificate of Education**

**Health and Social Care  
8626/8629**

**HC15**

**Mark Scheme**

***2009 examination – June series***

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1. Greg is 65 and was diagnosed with multiple sclerosis at the age of 45.

1 (a) Describe the progression of multiple sclerosis	(3 marks)
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1 mark per symptom up to 4. Likely answers

less/no remissions(1); incontinence(1); difficulty in feeding himself (1) due to intention tremor ataxia(1) urinary infections(1) no mobility(1) loss of cognitive abilities (1) In final stages bedridden(1), pneumonia(1) bedsores(1) die 25 years after diagnosis(1)

1 (b) Name and outline three stages in the Care Planning Cycle	(9 marks)
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1 mark each (up to 3) for naming stages, plus up to 2 marks each for accurate detail. Detail marks up to 2 per stage can be awarded if the stage is clearly identifiable although not named correctly.

Likely answers

Assessment (1) finding out the person's needs and capabilities (1) e.g. whether they are incontinent/their daily living skills(1) carried out by OT or social worker (1)

Care Planning (1) deciding on the package of care to be provided (1) plus e.g. whether kitchen needs to be adapted for wheelchair use/specifying services and/or professionals involved (1) and a timetable for when it should be carried out (1)

Implementation (1) actually providing the planned care (1) e.g. fitting/supplying aids/adaptations/specifying services and/or professionals involved(1)

Monitoring (1) checking that services have been provided/objectives have been achieved(1) e.g. that the adaptations that have been installed/are effective(1) and that care workers are attending as planned (1)

Reviewing (1) making alterations to care plan as a result of monitoring (1) e.g. providing more home care as the client's condition worsens(1) recommending residential care (1) ending the care plan if needs have been met (1) restarting the cycle/reassessing needs (1)

Greg is now 65 and has recently moved into residential care because his wife Julie cannot provide the level of care he needs. Her own health has declined and she has found it difficult to maintain her part-time teaching job.

c) Discuss the advantages and disadvantages for both Greg and Julie of Greg going into residential care.	(8 marks)
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1 mark for each advantage/disadvantage. The candidate must refer to both Greg and Julie and include disadvantages and advantages for both of them for full marks. Only Greg or Julie max 6 marks; a list/incomplete sentences max 6 marks

The following points are likely to be made:

Advantages for Greg

1. A higher standard of personal/professional care plus example for additional mark
2. Greater personal security/supervision/protection
3. Access to a wider range of facilities/equipment/services/activities
4. More social contact
5. A better relationship with Julie because she is less burdened/unhealthy

Advantages for Julie

1. The burden of caring for Greg will be removed
2. Julie will have more freedom/independence to pursue her own interests/career
3. Julie can enjoy more quality time with Greg without the strain of caring for him
4. Julie's health should improve

Disadvantages for Greg

1. Loss of freedom/personal autonomy/disempowerment
2. Loss of privacy
3. Reduced contact with Julie – strain on marriage
4. Frequent change of carer
5. Loss of home comforts/known environment
6. Resentment that his wife could not cope with his care
7. Jealousy of her new found freedom

Disadvantages for Julie

1. She might feel guilty blaming herself for the separation
2. She might not trust the carers at the home
3. She might find it difficult to let go of her caring role
4. Loneliness at being home alone
5. Financial burden

2.(a) Describe how Down's Syndrome is caused
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(5 marks)
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Any 5 of the following

A chromosomal disorder \*(1) in which there is an additional chromosome (1) with the 21<sup>st</sup> chromosome pair/trisomy 21 (1) the extra chromosome comes either from the father or the mother (1) at conception (1) usually on the first cell division of a newly-fertilised ovum (1) sometimes as a result of a sperm with an extra chromosome (1). Mother's age is a contributory factor (1) possibly due to increased risk over time of damage to eggs(1)

\* if this is not stated explicitly, but candidate goes on to give details of chromosomal abnormality, credit them with this point too. Not genetic

(b) Name and describe **one** test used to detect Down's Syndrome before birth  
(4 marks)

1 mark for naming the test and 3 for accurate description. If the description is accurate and clearly describes one test, up to 3 marks may be awarded.

**Amniocentesis** (1) A needle is inserted through the woman's abdomen into the uterus/ and amniotic sac (1) positioned with the aid of an ultrasound scan (1) A sample of the amniotic fluid in the sac is extracted (1) at around 15/16 weeks into pregnancy (1) the tissue sample is tested for chromosomal abnormalities (1)

**Chorionic villus sampling/CVS** (1) tissue sample of placenta extracted by needle via abdomen or catheter via cervix (1) positioned with the aid of an ultrasound scan (1) 10-11 weeks (1)

**The AFP/alpha foetal protein test** (1) a test using a sample of mother's blood (1) 15-18 weeks (1) to test level of alphaprotein (1) low AFP indicates risk of Down's (1) need for diagnostic test (1)

**Cordocentesis/foetal blood sampling/percutaneous umbilical blood sampling/ PUBS** (1) 18-20 weeks (1) needle passed into umbilical cord (1) for sample of baby's blood (1) positioned with the aid of an ultrasound scan (1)

**Nuchal Fold Translucency test** (1) 11-13 weeks (1) Using an ultrasound scan (1) measures the fold of skin on the back of the baby's neck thicker in babies with Down's (1) measurement fed into computer along with mother's age and any blood test results (1) If positive - diagnostic test offered (1)

**Serum screening/ Bart's/Double or Triple test** (1) blood test (1) used along with mother's age (1) to identify risk (1) measures three substances (1) AFP, estriol and human chorionic gonadotrophin (1) If positive - diagnostic test offered (1)

(c) Following positive ante-natal tests for Down's Syndrome, parents may consider whether or not to terminate the pregnancy. Discuss the practical and ethical issues that might influence the parents' decision  
(6 marks)

The candidate might make three points well and so secure 6 marks

Candidates should consider arguments for and against to receive full marks and cover both practical and ethical.

1. Parents do not feel capable of making the lifetime commitment to the care of a child with Down's Syndrome.
2. Their personal circumstances might contribute to this decision
3. The parents' wishes should be respected
4. Objection on ethical grounds – the fetus is a living person/playing God
5. The abortion of fetuses likely to have impairments is discriminatory and places a lower value on the life of a disabled person
6. Health professionals' influence
7. Quality of life

(d) Name the process whereby a child is guaranteed access to special education within a mainstream school  
(1 mark)

Statementing (1)

Shilpa is 4 years old, has Down's Syndrome and is due to start school in September

(e). Outline **two** possible reasons for her parents' decision to send Shilpa to the local mainstream school rather than a special school (4 marks)

1 mark for identifying a reason and 1 mark for a good explanation/elaboration.

1. The local school has experience of working with children who have Downs Syndrome. With an example - there is a special unit attached to the school which is very effective. Shilpa would receive one to one support from a special needs teacher.
2. They want Shilpa to make friends with/be accepted by children in the local community. Shilpa already has friends from nursery school
3. A special school might be much further away and there might be transport issues.
4. At Primary school age the children are likely to be more accepting of others who are different compared to secondary

3. Ian runs a residential care home for people with dementia

(a) Describe **four** symptoms and resulting behaviours his care staff might expect from the residents with Alzheimer's Disease (8 marks)

1 mark for identifying symptom and 1 mark for giving example of resulting behaviour.

Answers might include:

**Memory Loss** (1) especially for new information(1) eg residents might forget where their room/the toilet is (1)

**Confusion** (1) not being able to follow a conversation/making mistakes about dates and times(1) eg waking up at 4am and wanting breakfast

**Impaired performance of learned skills**(1) eg problems washing, dressing and eating

**Loss of social skills**(1) eg lack of confidence/ frustration(1)

**Disorientation**(1) not knowing where they are/wandering into the rooms of other residents/getting lost/distressing themselves and others.(1)

**Increased action slips** (1) eg mistaking the time of day; putting dirty dinner plates in cupboard (1)

**Disturbed sleep pattern**

Since the scenario is about a dementia unit staff might expect the type of symptoms which occur as the disease progresses:-

Voluntary **incontinence**(1) eg not being able to find the toilet or not being able to ask

Involuntary incontinence (1) poor personal hygiene and careless toileting(1)

**Lack of inhibition/ inappropriate behaviour** (1) can deteriorate and lead to outbursts of aggression(1) and occasionally masturbation in public.(1) loss of control over emotions/aggression (1) eg verbal physical anger with staff (1)

**Language** may be affected by aphasias(1), inability to find correct word/substituting other words or non-words(1) inability to understand the speech of others(1) complete inability to produce and understand speech(1)

**Hallucinations**(1)

Ian runs a session for his staff which is aimed to improve their skills and techniques when caring for the residents with Alzheimers

(b) Name **four** caring skills and, for each, outline how the skill can be used effectively when caring for these residents. (8 marks)

1 mark for each caring skill (in bold) identified up to 4 and 1 mark for successful application of skill to Alzheimers up to 4. **No marks for an explanation if not linked to named caring skill. For 6-8 marks** candidates must 'effectively' outline how the skill can be used

**Observation (1)**– since the disease is progressive care staff should notice if a residents condition is worsening eg he/she might have started to wander into other residents’s rooms at night and be a danger. (1)

**Social perception (1)** - since residents may have lost speech, it would be important that care staff read body language to prevent, for example, accidents in toileting. (1)

**Effective communication (1)** Residents suffering from aphasia might be using non-words and struggle to communicate. Care staff will need to be patient and find other ways of finding out what they want eg. pointing to pictures to find out what a resident wishes to eat. Effective communication skills will be vital to **gain compliance(1)**

**Setting challenges (1)** Due to memory loss/disorientation/confusion residents may struggle with the layout of the unit and forget where to go/ not be able to locate items for personal care. Care staff might label rooms/cupboards/items and work with residents to make fewer mistakes.

**Modelling (1)**Due to impaired performance of learned skills, washing, dressing, eating residents might benefit from care staff showing appropriate behaviour and encouraging them to copy this.

**Encouraging (1)** Care staff might reward adaptive behaviour which might be any of the examples above eg finding correct room/item; coping with washing, dressing, eating.

**Showing approval (1)** when sufferers are aware of their own deterioration they may be anxious and depressed so they will benefit from positive responses such as smiling and praise, or if appropriate, a cuddle. Annoyance or anger at any anti-social behaviour will only add to their anxiety and insecurity.

**Physical contact (1)** can be used to comfort a resident who is anxious or upset, as well as to show approval. Usually it takes the form of touching a person on the hand or arm, or by a cuddle. . Poor personal hygiene and anti-social behaviour might make it difficult for care staff to give physical comfort but this is when the comfort/approval is perhaps most needed

**Creating trust (1)** since the main treatment is likely to be personal care (help with eating, washing & dressing) it is vital that the resident can rely on a consistent and respectful approach

**Reducing negative feelings (1)** and behaviours of clients and others & **defusing conflict** as there is potential for aggression/conflict. The carer must remain calm at all times even if physically/verbally attacked

Other caring skills:- **Working alongside; distraction; disengagement, eye contact and facial expressions**

(c) Describe how Alzheimer's disease is caused

(4 marks)

1 mark per point up to 4. Likely points:

Abnormalities in brain chemistry (1) including overproduction of beta-amyloid (1) deficiency of acetylcholine (1) leading to death of neurons/nerve cells (1) and formation of plaques/clumps of dead cells (1) can be genetic in younger people(1) Cause not known (1)

4 (a) For each of the following causes of impairment give an example of one resulting disability condition

- (i) Genetic factors
- (ii) Birth Trauma
- (iii) Infectious disease
- (iv) Nutritional factors

(4 marks)

- (i) Genetic – Cystic Fibrosis, Duchenne Muscular Dystrophy
- (ii) Birth Trauma – Cerebral Palsy/ learning disability
- (iii) Infectious disease - learning disability/blindness/deafness/cerebral palsy
- (iv) Nutritional – Spina bifida/osteoarthritis/ blindness/ loss of limb

NB Meningitis alone is insufficient as it is not a disability

A person's disability can be the result of his/her lifestyle choices

(b). Give **one** example of a lifestyle choice and explain how this can contribute to a disease which may result in an impairment.

(5 marks)

1 mark for correctly identifying lifestyle choice(s); 1 - 2 mark for linking this to a disease(s)/condition(s); 1-2 marks for describing impact on the body; 1 mark for naming the resulting impairment.

For full 5 marks candidate must have LC, how, disease and impairment: For example

Smoking/ excessive consumption of alcohol/ a diet high in fats/ carbohydrates and salt/ lack of exercise. (1) can cause atherosclerosis/ hypertension/heart disease/cancer(1) a "hardening" or "furring" of the arteries(1). chronic, slowly progressing and cumulative(1) blood supply cut off to an area of the brain which dies(1) leading to stroke.(1) May lose ability to speak(1) to move muscles in one side of the body.(1)

Smoking(1) can cause lung damage (1) leading to COPD (chronic obstructive pulmonary disease) or emphysema (1) Loss of mobility (1) due to shortness of breath (1)

Over eating/lack of exercise (1) can lead to obesity(1) increases pressure on the joints(1) particularly the knees, hips and spine(1) – can enhance the risk of osteoarthritis(1)

Other possibilities - Over exercise, drug abuse

4 (c) Describe the main provisions of the Disability Discrimination Act

(6 marks)

The Act requires suppliers of good/facilities/services to provide same standard of service to all(1) as well as access(1) plus example of providing equal access (1) plus example of such a supplier (1) Equality in conditions for buying/renting property(1) eg same rent for people with disabilities(1) Schools/colleges/local authorities required to publish equal opportunity policies(1)



Standards of access to public transport(1) for new vehicles(1) The act makes it illegal for an employer to treat a disabled person less well than an able-bodied person (1) for recruitment (1) training/promotion/dismissal(1). Requires employers to make reasonable adjustments to work place(1) plus example (1) including small businesses (1). The act ended the employment quota system(1)

*3 provisions and 3 valid examples = 6 marks or 6 provisions without examples =6 marks*

(d) Explain why some people with disabilities still face barriers and discrimination despite the existence of the Disability Discrimination Act (5 marks)
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Many individuals, employers and organizations don't know about the act (1). The act cannot change attitudes/ ignorance/stereotypes(1) difficult to interpret(1) Limited enforcement/few complaints brought before the courts (1) some people unwilling to complain because time-consuming/stressful/difficult (1) Employers can claim exemption from making reasonable adjustments(1) on basis of affordability(1)Legislation does not make indirect discrimination illegal(1)Some intentional non-compliance eg policy documents in place but not applied(1) legislation about access to public transport only applies to new vehicles.