



**General Certificate of Education (A-level) Applied
January 2011**

Health and Social Care

HC14

**(Specification
8621/8623/8626/8627/8629)**

Unit 14: Diagnosis and Treatment

Final

Mark Scheme

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Question 1

| Question | Part | Sub Part | Marking Guidance | Mark | Comments |
|----------|------|----------|--|------|-------------------|
| 1 | 01 | | The G.P. would touch/feel part of Joan's body/using her fingers/hands/to detect abnormalities AW/such as swellings – lumps/heat/she may press the area/to detect pain max 4 | 4 | |
| 1 | 02 | | The G.P. will put one or two fingers/against Joan's body AW/tap the fingers with the other hand/listening to the sound made/of hollow/muffled – or dull/to show if clear or fluid filled max 4 | 4 | |
| 1 | 03 | | The G.P. can access Joan's medical records/to see what previous illnesses/and treatments/medication he has had/use a database – clinical decision support system/which have a large amount of expert information AW/will suggest a range of possible diagnoses max 4 | 4 | Not search engine |
| 1 | 04 | | Ref to CT/CAT scan as computed tomography or computed axial tomography in which Joan will lie on a bed/table/gradually slides into the cylinder of the scanner AW/which rotates around Joan's body/emitting x-rays/receiving radiation which passes through Joan's body/the information is then sent to a computer/creates a digital image/by building up the sections/'slices'/into a 3-dimensional picture/image max 7 | 7 | |
| 1 | 05 | | Ref to CT/CAT – 3D image AW/clearer picture AW/can be used on the brain (through bone) | 1 | |

Question 2

| Question | Part | Sub Part | Marking Guidance | Mark | Comments |
|----------|------|----------|---|------|----------|
| 2 | 06 | | <p>Stretch and Challenge. Likely points will include – simple comparisons of numbers of admissions for the different diseases e.g. more admissions for cancers than respiratory diseases (any/all years). Most admissions for circulatory diseases – any/all years. Least admissions e.g. 2001/02 respiratory diseases 2001/02 – other diseases. Circulatory disease most common disease caused by smoking.</p> <p>Recognition of patterns in trends in the data year on year e.g. Cancer admissions increasing 2001/02 – 2006/07 Respiratory disease admissions increasing 2001/02 – 2006/07 Circulatory disease admission increase 2001/02 – 2004/05 then fall 2005/06- 2006/07. Other diseases similar pattern to circulatory diseases</p> <p>Circulatory disease admissions x2/3 Cancer admissions x3/4 other diseases – respiratory disease admissions</p> <p>Higher level responses may compare ‘significance’ of increases in numbers between the different diseases.</p> <p>Mark Ranges 0 marks No response worthy of credit e.g. answer simply restates the data.</p> <p>1-3 marks Answers make more/less points possibly with most-least comparisons between diseases and/or years. Answers unlikely to numerically manipulate data. Responses may be vague and repetitive. Candidates who deploy appropriate knowledge and understanding and display higher QWC skills should be rewarded at the top of the mark band. Conversely, those who display some confusion and weakness in QWC supporting knowledge and understanding should be placed at the bottom end of the mark band.</p> | 9 | |

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|---|----|--|--|---|--|
| | | | <p>4-6 marks Answers are more detailed making comparison points including most/least points. The overall pattern for 1-2 diseases of increasing numbers and for rise and fall patterns over different years will be recognised. Some numerical manipulation will be evident. Answers are organised but may lack precision. Candidates who deploy appropriate knowledge and understanding and display higher QWC skills should be rewarded at the top of the mark band. Conversely, those who display some confusion and weakness in QWC supporting knowledge and understanding should be placed at the bottom end of the mark band.</p> <p>7-9 marks Detailed answers making comparison points, most-least points as above and different patterns in the data for different diseases across the years will be recognised. There will be examples of numerical manipulation, including the overall rise in hospital admissions from 2001/02 to 2006/07 and may include higher level responses considering ‘significance’ of number of differences of the diseases. Candidates who deploy appropriate knowledge and understanding and display higher QWC skills should be rewarded at the top of the mark band. Conversely, those who display some confusion and weakness in QWC supporting knowledge and understanding should be placed at the bottom end of the mark band.</p> | | |
| 2 | 07 | | <p>Likely suggestions may include for year on year increase = increasing population numbers so more admissions year on year Idea that many people in past years smoked (pre 2001/02) and takes time for diseases to develop More beds available later years May have readmissions – if diseases not fatal For fall in admissions = more treatments available (2004/05 onwards) which do not require hospital admission – outpatients Idea that less people now smoke but disease numbers due to previous years when smoking on the increase year on year AW. max 3</p> | 3 | |

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|---|----|--|--|---|---|
| 2 | 08 | | Strengths include: relatively quick to use AW/able to reach large numbers easily/not embarrassing AW (if anonymous) allow – responses easy to collate max 2 | 2 | Allow more likely to complete if in own home. |
| 2 | 09 | | Weaknesses include: low return rates/questions may not be understood/may not be taken seriously/may be time consuming to design well/fill out max 2 | 2 | |
| 2 | 10 | | Open items allow wide range of response/may obtain unexpected answers/respondents more likely to be 'happy' with their answers – can express themselves fully max 2 | 2 | |
| 2 | 11 | | Closed items are easy to collate/record/easy to compare responses/take less time max 2 | 2 | |

Question 3

| Question | Part | Sub Part | Marking Guidance | Mark | Comments |
|----------|------|----------|--|------|---|
| 3 | 12 | | Genetically engineered drug : made life form biologically aw/genetically modifying AW/genes/DNA – bacteria – microbe/to produce the chemical needed max 3 | 3 | |
| 3 | 13 | | Ref to drug being tested for safety of use/effectiveness AW/to determine side effects type – seventy AW/ensure benefits outweigh risks – side effects/gain legal approval/licensed for sale max 3 | 3 | |
| 3 | 14 | | The drug will be classified by its chemical make-up/disorder treated/specific effects on the body | 3 | |
| 3 | 15 | | Reasons for the drug being administered by mouth include – drug released slowly over a period of time – avoids sudden large dose AW/user friendly – easy to do by patient | 2 | |
| 3 | 16 | | Ref to nursing in intensive care: continuously/closely monitors/pulse – breathing – heart rate/blood pressure/of those who are seriously ill – threat of dying/using high levels of observation/and using specialist skills/to respond quickly if patient deteriorates/very high hygiene routines employed/reducing infection risks/may employ artificial feeding – drips/ventilation equipment max 6 | 6 | Ignore home nursing comparisons. Allow high ratio nurses to patients AW |
| 3 | 17 | | Aseptic techniques are procedures which are: free of infection causing organisms/mainly bacteria/pathogens – viruses/by sterilisation of – introducing equipment – clothing – by steam at high pressure – and through washing thoroughly – filtering air/disposing of used gloves – gowns etc – to minimise the risk of transmission of disease max 3 | 3 | |

Question 4

| Question | Part | Sub Part | Marking Guidance | Mark | Comments |
|----------|------|----------|---|------|----------|
| 4 | 18 | | Laser surgery uses a high intensity/light beam/focussed on a small spot/very accurately/to cut through tissues/by heating cells/until they 'burst' max 4 | 4 | |
| 4 | 19 | | Local anaesthetic: a chemical – drug/blocks nerve pathways/prevents pain sensation for Susan/in the area administered – Susan's eye/without loss of consciousness max 4 | 4 | |
| 4 | 20 | | <p>Stretch and Challenge. Likely points will cover: patient choice is a basic human right/protected by law AW/so can agree, refuse or delay treatment for disease – dysfunction/this empowers the patient/also patient chooses their lifestyle/which may affect the effectiveness of treatments/examples include smoking – alcohol abuse – diet – exercise – illegal drug use/which can raise issues re: priority of need between patients/effective use of limited resources/to be weighed against everybody's' basic rights to treatment/quality of life issues v importance of treatment/if patient choice respected – more likely to cooperate/aid recovery.</p> <p>Mark Ranges 0 marks No response worthy of credit.</p> <p>1-4 marks Answers are vague and repetitive covering 1-4 points and tending to make one sided statements of personal opinion with little if any reasoning. There will be errors in spelling, punctuation and grammar. Candidates who deploy appropriate knowledge and understanding and display higher QWC skills should be rewarded at the top of the mark band. Conversely, those who display some confusion and weakness in QWC supporting knowledge and understanding should be placed at the bottom end of the mark band.</p> | 12 | |

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|--|--|--|---|--|--|
| | | | <p>5-8 marks Answers are more detailed covering a balance of points with some reasoning. Answers are organised but may lack precision. There may be errors in spelling, punctuation and grammar. Candidates who deploy appropriate knowledge and understanding and display higher QWC skills should be rewarded at the top of the mark band. Conversely, those who display some confusion and weakness in QWC supporting knowledge and understanding should be placed at the bottom end of the mark band.</p> <p>9-12 marks Answers covering most of the points in the range and are well reasoned and balanced. There will be good spelling, punctuation and grammar. Candidates who deploy appropriate knowledge and understanding and display higher QWC skills should be rewarded at the top of the mark band. Conversely, those who display some confusion and weakness in QWC supporting knowledge and understanding should be placed at the bottom end of the mark band.</p> | | |
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