CONFIDENTIAL

The National Clinical Coding Examination [UK]

25 September 2018

Paper 2 Theory - ANSWERS
1:30 pm - 4:35 pm
THREE HOURS

The first 5 minutes will be spent reading through this Examination Paper

This Examination Paper consists of 3 Sections: C, D and E.

Section C – General Short Theory Questions [20% of the Marks]
Answer all questions in this Section in the space provided on the Examination Paper.

Section D – General Theory Questions [45% of the Marks]
Answer all questions on the lined paper provided. Use a new sheet of paper for each answer. Write only on one side of the paper.

General Theory ICD-10 Questions D[1] [15% of the Marks]
Answer either Section D1A or D1B
General Theory OPCS-4 Questions D[2] [15% of the Marks]
Answer either Section D2A or D2B
Clinical Terms Questions D[3] [10% of the Marks]
Answer either Section D3A or D3B
Miscellaneous Questions D[4] [5% of the Marks]
Answer either Section D4A or D4B

Section E – Anatomy & Physiology (including Medical Terminology) [35% of the Marks]
Answer all questions in this Section in the space provided on the Examination Paper.
Section E[1] Anatomy & Physiology – Answer all Questions 1-15
Section E[2] Medical Terminology – Answer all Questions 1-10
Section E[3] Diagrams – Label both diagrams
### Section C – General Theory Short Questions [20% of the Marks]

You must write your Candidate Number in the top right hand corner of each page.

Answer ALL 20 questions in this Section writing your answers in the spaces provided.

1. Describe the *Coding Clinic* and its function. [6 Marks]

   The *Coding Clinic* is the technical supplement providing new and updated guidance or clinical coding standards for ICD-10 and OPCS-4.

   Reference: *Coding Clinic*, Version 7

2. Describe the ICD-10 clinical coding standard that must be adhered to for a current smoker. [2 Marks]

   When it is documented in the medical record that a patient smokes, the code for ‘harmful use of tobacco’ (F17.1 Mental and behavioural disorders due to use of tobacco, harmful use) must be assigned. If further information is given such as dependence, then the fourth character code may change.

   Reference: DCS.V.7: Current smoker (F17)


3. Describe the ICD-10 clinical coding standard that must be applied when a patient has a urethral obstruction and benign prostatic hypertrophy / hyperplasia (BPH). [2 Marks]

   When urethral obstruction is caused by benign prostatic hypertrophy / hyperplasia (BPH), it must not be coded in addition as it is regarded as a symptom of BPH and is therefore implicit in code N40.X Hyperplasia of prostate.

   Reference: DCS.XIV.5: Benign prostatic hypertrophy and urethral obstruction (N40.X)


4. What is considered a ‘failed or abandoned ERCP’ as stated in the OPCS-4 clinical coding standard? [2 Marks]

   Incomplete insertion of the endoscope.

   Complete insertion of the endoscope but the ampulla cannot be cannulated.

   Reference: PCSJ2: Failed or abandoned endoscopic retrograde cholangiopancreatography (J43.9)

   National Clinical Coding Standards OPCS-4 2018 reference book
5. Describe the OPCS-4 clinical coding standard that must be adhered to when a code from Chapter S is used to enhance a body system code from another chapter. [4 Marks]

When using a code from Chapter S to enhance a code from another body system chapter the code from Chapter S must be assigned:
• When it provides further information about the procedure that is not specified in the primary body system code
• In a secondary position, directly after the body system code it is enhancing.

Reference: PChSS1: Enhancing body system codes using codes from Chapter S
National Clinical Coding Standards OPCS-4 2018 reference book

6. What two conditions must be coded when sepsis is confirmed to be due to a device, implant or graft? [2 Marks]

Both the sepsis and the site of the localised infection must be coded.

Reference: DChS.I.1: Sepsis, septic shock, severe sepsis and neutropenic sepsis

7. Within the ICD-10 guidance, what term is commonly used to describe ‘false labour’?

‘Braxton-Hicks’ contractions.

Reference: Chapter XV Pregnancy, Childbirth and the Puerperium, guidance page 132

8. In OPCS-4, how should a combination of chemotherapy regimens that are administered during the same day case attendance be coded? [4 Marks]

The procurement code (X70, X71) and the corresponding delivery code (X72, X73) for each regimen must be assigned. Each procurement code must be sequenced before its corresponding delivery code.

Reference: CRCS4: Combinations of regimens
Chemotherapy Regimens Clinical Coding Standards and Guidance OPCS-4 April 2017
9. Explain how staged procedures are to be coded using the OPCS-4 classification. [2 Marks]

If a specific code describing the staged procedure is not available a code from Chapter Y (Y70.3 First stage of staged operations NOC or Y71.1 Subsequent stage of staged operations NOC) must be assigned as an additional code to indicate the stage of the procedure.

Reference: PGCS18: Staged procedures
National Clinical Coding Standards OPCS-4 2018 reference book

10. Glossary descriptions exist in multiple chapters in ICD-10, e.g. Chapter V Mental and behavioural disorders. How must they be used in the assignment of codes? [2 Marks]

Code selection must be made on the basis of the diagnoses documented by the responsible consultant, even if there appears to be a conflict between the condition (as documented) and the definition.

Reference: DChS.V.1: Glossary descriptions

11. Where would you find the ICD-10 5th Edition Errata and what should the coder do with it? [2 Marks]

It is found in the Coding Clinic and contains all changes that must be made in the printed ICD-10 books.

Coding Clinic, Version 7

12. Describe the OPCS-4 standard relating to the use of code L97.6 Insertion of vascular closure device. [2 Marks]

The code must not be assigned when it (the vascular closure device) was applied as part of a main procedure to close and seal the arteries. It must only be assigned when this was the only procedure that took place.

Reference: PCSL6: Insertion of vascular closure device (L97.6)
National Clinical Coding Standards OPCS-4 2018 reference book
### 13. In what circumstance are clinical coders permitted to assign the ICD-10 code C80.0 Malignant neoplasm, primary site unknown, so stated? [2 Marks]

The code must only be assigned when the responsible consultant has explicitly documented within the medical record that the primary site is unknown.

**Reference:** DCS.II.1: Primary and secondary malignant neoplasms (C00-C97)

### 14. Describe the guidance for the use of site codes to supplement codes in category W82 Therapeutic endoscopic operations on semilunar cartilage. [2 Marks]

It is not necessary to assign a site code with codes in the category, as semilunar cartilage is only found in the knee joint.

**Reference:** Chapter W Other Bones and Joints, guidance page 132
National Clinical Coding Standards OPCS-4 2018 reference book

### 15. According to the OPCS-4 standard PCSM3: Extracorporeal shockwave lithotripsy of calculus of ureter (M31.1), what are the two integral parts of the procedure that must not be coded in addition? [2 Marks]

- Cystoscopy
- Insertion of a stent

**Reference:** PCSM3: Extracorporeal shockwave lithotripsy of calculus of ureter (M31.1)
National Clinical Coding Standards OPCS-4 2018 reference book

### 16. Describe the circumstances the ICD-10 code I46.1 Sudden cardiac death, so described must and must not be used. [3 Marks]

It must only be assigned when specifically described as sudden cardiac death by the responsible consultant. This is with the exception of sudden cardiac death due to conditions specifically listed as exclusions at this code, in which case the code is not necessary.

**Reference:** DCS.IX.8: Cardiac arrest (I46)
### 17. Describe the OPCS-4 standard for the assignment of codes in category X45 Donation of organ. [2 Marks]

It must only be coded if the patient donating the organs is alive. The removal of organs for donation from ‘brain dead’ or ‘deceased’ patients must not be coded.

**Reference:** PCSX11: Donation of organ (X45)
National Clinical Coding Standards OPCS-4 2018 reference book

### 18. Describe the ICD-10 standard related to the coding of respiratory failure. [3 Marks]

Respiratory failure must always be coded when the diagnosis is recorded in the medical record. When documented with another respiratory condition, the sequencing will be dependent on the main condition being treated. The fifth character subdivisions used with this category indicate the type of failure and must always be assigned whether the type has been specified (0, 1) or not (9).

**Reference:** DCS.X.7: Respiratory failure, not elsewhere classified (J96)

### 19. How are the ICD-10 codes in block Y70-Y82 Medical devices associated with adverse incidents in diagnostic and therapeutic use to be used, and in what circumstance? [2 Marks]

They can be used if an adverse incident occurs during a procedure that is out of the surgeon’s control. A code from these categories must be assigned in a secondary position to the code describing the adverse incident caused.

**Reference:** DCS.XX.8: Misadventure and adverse incidents during medical and surgical care (Y60-Y82)

### 20. Within OPCS-4, what has sequencing priority when an intrauterine coil procedure is performed during the same theatre visit as a diagnostic or therapeutic hysteroscopy? [2 Marks]

The hysteroscopy code must be sequenced before the intrauterine coil code.

**Reference:** PCSQ2: Dilation, curettage (D&C), hysteroscopy and intrauterine coil (Q10.3, Q10.8, Q18.8, Q18.9, Q12)
National Clinical Coding Standards OPCS-4 2018 reference book

[Section C - Total maximum number of marks: 48]
Section D – General Theory Questions

Please use separate Answer Sheets found at the end of this Question Paper, to answer your chosen questions in Section D.

- You must use a new Answer Sheet for each question.
- Write on only one side of the Answer Sheet.
- You must write your Candidate Number in the top right hand corner of each Answer Sheet that you use.
- You must write the Question Number in the top left hand corner of each Answer Sheet that you use.

Section D[1] – ICD-10 Theory [15% of the Marks]

*Answer either Part A or Part B of the following:*

Please make it clear which question you are answering and label each Section accordingly.

**Question D1 Part A: [Answer all components of this question, i and ii]**

<table>
<thead>
<tr>
<th>i)</th>
<th>Describe the ‘essential modifiers’ used in ICD-10 and how they appear in the Alphabetical Index, including any exceptions. [9 Marks]</th>
</tr>
</thead>
</table>
|   | Essential modifiers are descriptive terms which do affect the code selection for a given diagnosis. These modifiers describe essential differences (for the purpose of coding) in site, aetiology, or type of disorder. These terms must appear in the diagnostic statement for the code to be assigned. Essential modifiers appear as subterms indented below lead terms. Each indented list is in alphabetical order, with the following exceptions:
|   |   * Whenever the relational term ‘with’ is used it is always the first entry of the indented list*
|   |   * Numbers spelled out into words appear in alphabetical order*
|   |   * Numbers listed as Arabic numbers appear at the end of the list after all the modifying words in numeric order*
|   |   * Numbers listed as Roman numerals appear in numeric order.*

**Reference:** DConvention.6: Modifiers
<table>
<thead>
<tr>
<th>ii)</th>
<th>Describe the standard relating to the use of <strong>R52.1 Chronic intractable pain</strong> in ICD-10. [6 Marks]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>When patients are admitted for treatment of generalised chronic pain affecting more than one organ or body region caused by a more specific condition, code <strong>R52.1 Chronic intractable pain</strong> must be assigned in addition to the code classifying the specific condition causing the pain. Chronic intractable pain must not be coded if the chronic pain caused by a specific condition is located in only one organ or body region (e.g. pain in hip); in these cases only the code for the specific condition must be assigned.</td>
</tr>
</tbody>
</table>
|  | **Reference: DCS.XVIII.5: Chronic intractable pain (R52.1)**  

[D1A - Maximum Mark of 15]

OR
**Question D1 Part B:** [Answer all components of this question, i, ii and iii]

Please use separate Answer Sheets making it clear which question you are answering and label each Section accordingly.

<table>
<thead>
<tr>
<th>i)</th>
<th>Describe the use of the codes in ICD-10 category <strong>F19.- Mental and behavioural disorders due to multiple drug use and use of other psychoactive substances.</strong> [5 Marks]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>They must only be assigned when two or more psychoactive substances are known to be involved and:</strong></td>
<td></td>
</tr>
<tr>
<td>• the exact identity of some (or even all) of the psychoactive substances being used is uncertain or unknown</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>• it is not evident which substance the patient is most dependent upon</td>
<td></td>
</tr>
<tr>
<td>or</td>
<td></td>
</tr>
<tr>
<td>• it is not possible for the responsible consultant to identify which substance is contributing most to the disorder.</td>
<td></td>
</tr>
<tr>
<td>If they are also a ‘current smoker’, a code from category <strong>F19.</strong> must be used in combination with <strong>F17.- Mental and behavioural disorders due to use of tobacco.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Reference:</strong> DCS.V.8: Mental and behavioural disorders due to multiple drug use and use of other psychoactive substances (F19) National Clinical Coding Standards ICD-10 5th Edition (2018) reference book</td>
<td></td>
</tr>
<tr>
<td>ii)</td>
<td>Describe the ICD-10 clinical coding standard when coding metastases and there are two or more sites stated in a diagnostic statement and some are qualified as ‘metastatic’ whilst others are not, and the sites are not on the list of predominantly secondary sites. [4 Marks]</td>
</tr>
<tr>
<td><strong>Clarification must be sought from the responsible consultant as to which site(s) are metastatic. In the absence of clarification, code both stated sites as primary malignant neoplasms with code <strong>C79.9</strong> to denote secondary neoplasm of unspecified site.</strong></td>
<td></td>
</tr>
</tbody>
</table>
### iii) Describe the ICD-10 clinical coding standard for the use of I25.2 Old myocardial infarction. [6 Marks]

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
</table>
| The code is used to classify an old MI, a previous MI, a past MI and a personal history of myocardial infarction and must be used when the patient is not being treated for the previous myocardial infarction and either:  
  - the old myocardial infarction occurred more than four weeks (28 days) ago  
  - the length of time since the patient had the MI has not been stated and the responsible consultant uses terms such as ‘previous’, ‘old’, ‘past MI’.  
When both an old, previous or past MI and IHD are documented in the medical record, both conditions must be coded.  
If a patient with a previous MI has any other cardiac problems, these conditions must also be recorded. |

### Reference: DCS.IX.7: Chronic ischaemic heart disease (I25)  

[D1B - Maximum Mark of 15]
Section D[2] – OPCS-4 Theory [15% of the Marks]

Answer either Part A or Part B of the following:

Please use separate Answer Sheets making it clear which question you are answering and label each Section accordingly.

Question D2 Part A: [Answer all components of this question, i, ii and iii]

<table>
<thead>
<tr>
<th>i)</th>
<th>Describe the OPCS-4 clinical coding standard relating to the coding of caesarean sections. [5 Marks]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Assign a code from category (R17) Elective caesarean delivery for caesarean sections performed when the patient IS NOT in labour.</td>
</tr>
<tr>
<td></td>
<td>• Assign a code from category (R18) Other caesarean delivery for caesarean sections performed when the patient IS in labour (and for all emergency caesarean sections).</td>
</tr>
<tr>
<td>ii)</td>
<td>Describe the OPCS-4 clinical coding standard relating to the coding of multiple deliveries. [4 Marks]</td>
</tr>
<tr>
<td></td>
<td>• Each different type of delivery must be recorded with the most serious being sequenced first.</td>
</tr>
<tr>
<td></td>
<td>• Where all methods of delivery are identical, only one code is required.</td>
</tr>
<tr>
<td>iii)</td>
<td>Describe the OPCS-4 standard for the coding of method of administration of High Cost Drugs. [6 Marks]</td>
</tr>
<tr>
<td></td>
<td>Where a body system chapter code is available which classifies the site of injection of a high cost drug the body system chapter code must be sequenced before the high cost drug code.</td>
</tr>
<tr>
<td></td>
<td>Where a body system chapter code that classified the site of injection is not available only the high cost drug code is assigned. The method of administration codes (from Chapter X Miscellaneous operations) must not be assigned when coding high cost drugs.</td>
</tr>
<tr>
<td></td>
<td>Reference: HCDCS2: Method of administration High Cost Drugs Clinical Coding Standards OPCS-4</td>
</tr>
</tbody>
</table>

[D2A - Maximum Mark of 15]

OR
Question D2 Part B: [This question has only one component]

Please use separate Answer Sheets making it clear which question you are answering and label each Section accordingly.

Describe what the following abbreviations stand for, their meaning and where they are found in OPCS-4: [15 Marks]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>HFQ</td>
<td>NEC</td>
</tr>
<tr>
<td>NFQ</td>
<td>NOC</td>
</tr>
</tbody>
</table>

The abbreviations are used in the Tabular List and the Alphabetical Index:

HFQ (However Further Qualified)
Signifies that a statement may be further qualified/described in a number of ways, which will not affect the code assignment, It refers to the part of the procedural statement that immediately precedes the abbreviation HFQ; it therefore makes no difference how much more specific the clinician is in their statement, there is only one code option for that intervention in OPCS-4.

NEC (Not Elsewhere Classified)
Indicates that a more detailed variation of the term may be covered by another code.
Sometimes the more detailed code is found within the same three-character category. If a more detailed code is not available then the NEC code is assigned.

NFQ (Not Further Qualified)
Signifies the statement written by the clinician has no further description provided. In effect it is an ‘unspecified’ statement.

NOC (Not Otherwise Classifiable)
Is used only in the subsidiary Chapter Y and indicates these methods of operation codes are to be used only when they cannot be specifically coded (i.e. not classified) to any chapter in the main classification.

Reference: PConvention 3: Abbreviations
National Clinical Coding Standards OPCS-4 2018 reference book

[D2B - Maximum Mark of 15]
Section D[3] – Clinical Terms [10% of the Marks]

Answer either Part A or Part B of the following:

Please use separate Answer Sheets making it clear which question you are answering and label each Section accordingly.

Question D3 Part A: [Answer all components of this question, i, ii, iii and iv]

<table>
<thead>
<tr>
<th>i)</th>
<th>Please state whether the following statements are TRUE or FALSE.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>SNOMED CT is a vocabulary used by clinical coders to report/summarise Consultant Episodes for national Data Sets.</td>
</tr>
<tr>
<td>b)</td>
<td>ICD-10 focusses on what we want to count for statistical and epidemiological purposes.</td>
</tr>
<tr>
<td><strong>Reference:</strong> Classification Maps</td>
<td><a href="https://hscic.kahootz.com/connect.ti/t_c_home/view?objectId=298323">https://hscic.kahootz.com/connect.ti/t_c_home/view?objectId=298323</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ii)</th>
<th>List the missing words in the following statement in sequential order. [2 Marks]</th>
</tr>
</thead>
<tbody>
<tr>
<td>The classification maps are ___ directional, providing a map from ___ to ____.</td>
<td>One or uni SNOMED CT The classifications or ICD-10 and OPCS-4</td>
</tr>
<tr>
<td><strong>Reference:</strong> UK Classification Maps in the NHS Digital SNOMED CT Browser</td>
<td><a href="https://hscic.kahootz.com/connect.ti/t_c_home/view?objectId=298323">https://hscic.kahootz.com/connect.ti/t_c_home/view?objectId=298323</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>iii)</th>
<th>Name four top level hierarchies in the UK Edition of SNOMED CT. [4 Marks]</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Body structure (body structure) - Clinical finding (finding) - Environment or geographical location (environment / location) - Event (event) - Observable entity (observable entity) - Organism (organism) - Pharmaceutical / biologic product (product) - Physical force (physical force)</td>
<td></td>
</tr>
</tbody>
</table>
iv) Give **two** examples of how SNOMED CT can support the direct care of a patient. [2 Marks]

- Supports the electronic patient record (EPR)
- Designed to be used by clinicians
- The information is recorded in the medical record (EPR) at the point of care
- Allows clinicians to express information in the medical record (EPR) using the clinical language they use
- Provides greater depth of information (granularity)
- Supports collection of data across a wider range of specialties (physiotherapy, community, pharmacy etc)
- Provides a broader coverage of health-related topics (e.g. environment and geographical location, stages and scales, pharmaceutical/biologic products etc)
- Supports consistent sharing of patient data across different healthcare systems
- Supports clinical decision making
- Supports the management of patient screening and follow-ups
- Supports care pathway management and drug alerts
- Provides the ability to search the medical record for clinical information

Reference: SNOMED CT Brochure
https://hscic.kahootz.com/connect.ti/t_c_home/view?objectId=301107

SNOMED CT eLearning
https://hscic.kahootz.com/connect.ti/t_c_home/view?objectId=301107

An Introduction to SNOMED CT
https://hscic.kahootz.com/connect.ti/t_c_home/viewcontent?contentid=301139

SNOMED CT
### Classification Maps
- [Classification Maps](https://hscic.kahootz.com/connect.ti/t_c_home/view?objectId=297907)

### SNOMED CT Starter Guide
- [SNOMED CT Starter Guide](https://hscic.kahootz.com/connect.ti/t_c_home/view?objectId=298323)

[D3A - Maximum Marks of 9]

**OR**
Question D3 Part B: [Answer all components of this question, i, ii and iii]

Please use separate Answer Sheets making it clear which question you are answering.

i) Please state whether the following statements are **TRUE** or **FALSE**.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Because SNOMED concepts have a single parent they are mutually exclusive to ensure there is no ‘double counting’.</td>
<td>False</td>
</tr>
<tr>
<td>b) SNOMED CT is the vocabulary used by clinicians at the point of care.</td>
<td>True</td>
</tr>
</tbody>
</table>

**Reference:** Classification Maps

https://hscic.kahootz.com/connect.ti/t_c_home/view?objectId=298323

ii) Provide **six** benefits of using SNOMED CT in an Electronic Patient Record (EPR). [6 Marks]

- Vital information can be shared consistently within and across health and care settings
- Facilitates analysis to support extensive clinical audit and research
- Reduced risk of misinterpretations of the record in different care settings
- Supports clinical decisions
- Supports the sharing of clinical information
- Supports clinical audit
- Removes language barriers
- Improves legibility
- Decreases duplication of patient information
- Decreases re-recording of patient information
- Less ambiguous clinical information
- Clarity of clinical information
- Consistency leads to improved sharing of information
- Provides capture of clinical information at different levels required by different healthcare professions
- Electronic recording in a consistent way reduces errors and can help to ensure record completeness
- Reduced storage costs
- Can be accessed from many places
- Can be accessed by multiple users simultaneously
- Can be transferred quickly
- Supports ICD-10 and OPCS-4 classification via the maps
### iii) Name the two types of relationships found in SNOMED CT. [2 Marks]

<table>
<thead>
<tr>
<th>IS_A</th>
<th>Attribute</th>
</tr>
</thead>
</table>

Reference: SNOMED CT eLearning  
https://hscic.kahootz.com/connect.ti/t_c_home/view?objectId=301107

UK Classification Maps in the NHS Digital SNOMED CT Browser  
https://hscic.kahootz.com/connect.ti/t_c_home/view?objectId=298323

SNOMED CT Starter Guide  
https://confluence.ihtsdotools.org/display/DOCSTART

[D3B - Maximum Marks of 9]
Section D[4] – Miscellaneous Section [5% of the Marks]

Answer either Part A or Part B of the following:

Please use separate Answer Sheets making it clear which question you are answering and label each Section accordingly.

Question D4 Part A: [Answer all components of this question, i and ii]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>i)</td>
<td>Each Hospital Episode Statistic (HES) record contains a wide range of information about an individual patient admitted to an NHS hospital; what type of information does this include? [4 Marks]</td>
</tr>
</tbody>
</table>
| | • Clinical information about diagnoses and operations.  
| | • Patient information, such as age group, gender and ethnicity.  
| | • Administrative information, such as dates and methods of admission and discharge.  
| | • Geographical information, such as where patients are treated and the area where they live. |
| | Reference: About the HES database  

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ii)</td>
<td>Describe the ‘National Tariff’ NHS Payment System. [5 Marks]</td>
</tr>
<tr>
<td></td>
<td>It is a set of prices and rules used by providers of NHS care and commissioners to deliver the most efficient, cost effective care to patients.</td>
</tr>
</tbody>
</table>
| | Reference: NHS Payment System – National Tariff  
| | [link](https://www.england.nhs.uk/resources/pay-syst/national-tariff/) |

[D4A - Maximum Marks of 9]
**Question D4 Part B: [Answer all components of this question, i and ii]**

Please use separate Answer Sheets making it clear which question you are answering and label each Section accordingly.

<table>
<thead>
<tr>
<th>i)</th>
<th>Describe the concept of ‘totality of codes’ in the ‘three dimensions of coding accuracy’. [5 Marks]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>It means that all codes necessary to give an accurate clinical picture of the patient’s diagnosis, problems or other reasons for a consultant episode encounter, must be assigned in accordance with the rules, conventions and standards of the classification. This is important as it is possible for a list of codes to describe a consultant episode incorrectly in terms of clinical coding rules and standards even though the individual codes selected are correct.</td>
</tr>
</tbody>
</table>
|     | Reference: Three dimensions of coding accuracy  
National Clinical Coding Standards OPCS-4 2018 reference book |

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Coded clinical data is audited against national clinical coding standards. Clinical coding audit must be objective and provide value to the local organisation by highlighting and promoting the benefits of taking remedial actions to improve data quality and processes as well as acknowledging evidence of best practice.</td>
</tr>
</tbody>
</table>
|     | Reference: Data Quality - Clinical coding audit  
National Clinical Coding Standards OPCS-4 2018 reference book |

[D4B - Maximum Marks of 9]
### SECTION E - Anatomy & Physiology (including Medical Terminology) [35% of the Marks]

Please be aware that spelling will be taken into account during the marking process.

Section E[1] – Anatomy & Physiology

You must write your Candidate Number in the top right hand corner of each page.

Answer ALL 15 questions in this Section, writing your answers in the spaces provided.

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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</thead>
</table>
| 1. | Name the **three** layers of the skin, and sequence them from outermost layer to innermost layer. [4 Marks]  
Epidermis  
Dermis  
Subcutaneous tissue or subcutaneous layer or subcutaneous fat or hypodermis  
| 2. | Name the space between the vagina or scrotum and the rectum.  
Perineum  
| 3. | Which **two** types of circulation transport hormones? [2 Marks]  
The blood and lymph circulation.  
[‘Systemic’ and ‘Portal’ are acceptable alternative answers.]  
| 4. | What is the name of the thin layer of smooth tissue which lines many cavities and has the special ability to secrete a slimy fluid?  
Mucous membrane  
5. What type of joint is the wrist? Name the three bones that form its surfaces. [4 Marks]

The wrist is a condyloid (synovial joint also accepted) joint between bones in the forearm – the radius and ulna, and the carpals of the hand.


6. The sympathetic and parasympathetic are components of which part of the nervous system?

Autonomic nervous system


7. What is the name given to the first portion of the large intestine?

Caecum


8. Name the three main biological factors that affect skin colour. [3 Marks]

Melanin
The level of oxygenation
Bile pigments


9. Name the hormone that promotes gestation during the menstrual cycle.

Progesterone

### 10. Three systems are referred to when considering blood circulation; describe the action and nature of the pulmonary circulation. [4 Marks]

The circulation of blood from the right ventricle of the heart to the lungs (where oxygen is absorbed and carbon dioxide is excreted) and back to the left atrium.

**Reference:** Basic Anatomy & Physiology Clinical Coding Instruction Manual Page 38.

### 11. Name the fine transparent protective membrane, lining the eyelids, which folds on to the front of the eyeball.

**Conjunctiva**


### 12. Name the fibrous tissue structure that serves to connect muscle to bone.

**Tendon**


### 13. Describe the location and function of the thymus gland. [3 Marks]

Situated in the upper thorax and neck is the thymus gland. It helps to fight infection by assisting in the maturation of lymphocytes.

**Reference:** Basic Anatomy & Physiology Clinical Coding Instruction Manual Page 44.

### 14. The formation of urine serves what two functions? [2 Marks]

It maintains the balance of fluids in the body, and disposes waste from it.


### 15. Describe the function of the trachea and the two organs that it sits between. [3 Marks]

Passageway for air between larynx and bronchi.

**Reference:** Basic Anatomy & Physiology Clinical Coding Instruction Manual Page 79.

# National Clinical Coding Qualification (UK)
September 2018

## Section E[2] – Medical Terminology

**Please be aware that spelling will be taken into account during the marking process.**

Answer ALL 10 questions in this Section, writing your answers in the spaces provided.

1. What is the root word for the ‘eye’?  
   **Ophthalm-**  

2. What is the suffix in ‘hepatomegaly’ and what is its meaning? [2 Marks]  
   **-megaly – Enlargement**  

3. What root word is used to describe the ‘vertebra’ or ‘spinal column’?  
   **Spondyl-**  

4. Describe the difference between the prefixes ‘ante-’ and ‘anti-’. [2 Marks]  
   ‘Ante-’ means before, ‘anti-’ means against  

5. What suffix is used to describe ‘crushing’?  
   **-tripsy**  
6. Break down the term ‘encephalocele’ into its component parts and state what each part means. [5 Marks]

**Encephal – Brain**

**Celle – Tumour or swelling or hernia or protrusion**

**Reference:** Basic Anatomy & Physiology Clinical Coding Instruction Manual Page 6 and 8.

7. What two prefixes mean ‘above, beyond, superior’? [2 Marks]

Super- and supra-


8. What does the suffix ‘-lysis’ mean?

Decomposition or destruction or breaking down


9. Identify the three prefixes in this group. Circle your answers. [3 Marks]

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<tr>
<th>gram</th>
<th>ectasis</th>
<th>co</th>
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<tbody>
<tr>
<td>nephr</td>
<td>a</td>
<td>my</td>
</tr>
<tr>
<td>sym</td>
<td>cele</td>
<td>ur</td>
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</tbody>
</table>

**Reference:** Basic Anatomy & Physiology Clinical Coding Instruction Manual Pages 7-8.

10. Give the meaning of the term ‘cardiogenic’. [2 Mark]

Originating in the heart

**Reference:** Basic Anatomy & Physiology Clinical Coding Instruction Manual Page 6 and 8.

[E2] - Marks in Total: 20
Section E[3] Diagrams

Precisely label the anatomical structure indicated by each line on the following two diagrams. Write your answers in the boxes below.

E 3[a] Upper digestive system [10 Marks]

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>Mouth</td>
</tr>
<tr>
<td>2</td>
<td>Liver</td>
</tr>
<tr>
<td>3</td>
<td>Gall bladder</td>
</tr>
<tr>
<td>4</td>
<td>Duodenum</td>
</tr>
<tr>
<td>5</td>
<td>Pharynx</td>
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</table>
### E 3[b] Interior view of the ear [16 Marks]

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<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>Helix</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>Tympanic membrane or myringa</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>External auditory canal or external acoustic meatus</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>Lobule or lobe or earlobe or auricular lobe or auricle lobe</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>Auricle or pinna</td>
<td>13</td>
</tr>
<tr>
<td>6</td>
<td>Malleus</td>
<td>14</td>
</tr>
<tr>
<td>7</td>
<td>Incus</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>Stapes</td>
<td>16</td>
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