



# higher education & training

Department:  
Higher Education and Training  
**REPUBLIC OF SOUTH AFRICA**

**GSN670(E)(N6)H**

**NATIONAL CERTIFICATE**

**INFORMATION PROCESSING N4**

**(6020254)**

**6 November 2019 (X-Paper)**  
**09:00–12:00**

**This question paper consists of 19 pages.**

**DEPARTMENT OF HIGHER EDUCATION AND TRAINING**  
**REPUBLIC OF SOUTH AFRICA**  
NATIONAL CERTIFICATE  
INFORMATION PROCESSING N4  
TIME: 3 HOURS  
MARKS: 300

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**CANDIDATES ARE ALLOWED 30 MINUTES TO  
READ THE INSTRUCTIONS BEFORE THE EXAMINATION  
STARTS.**

	TIME	MARKS
SECTION A: TYPING TECHNIQUE	2 hours	200
SECTION B: WORD PROCESSING	1 hour	100
TOTAL:	3 hours	300

**READ THE FOLLOWING INSTRUCTIONS CAREFULLY BEFORE ANSWERING THE  
QUESTION PAPER. INVIGILATORS WILL EXPLAIN IF NECESSARY.**

**SECTION A: TYPING TECHNIQUE**

1. Candidates who are NOT ready and on time for the TIMED ACCURACY TEST (QUESTION 1) will only be allowed to enter the examination venue after the expiration of the TEN MINUTES allowed for the test.
2. Candidates are allowed to read through the test THREE MINUTES before the commencement of the examination.
3. The timed accuracy test must be keyed in at the beginning of the examination.
4. After the expiration of the TEN MINUTES allowed for the test, your test will be collected and signed by the invigilator who will retain it until the completion of the examination session whereafter, in your presence, it will be put in your EXAMINATION FOLDER.
5. Answer ALL the questions.
6. Procedure for QUESTIONS 2, 3, 4 and 5: Key in, save and print.
7. Each answer must be printed on a separate A4 paper. Use only ONE side of the paper.

**SECTION B: WORD PROCESSING**

1. Answer ALL the questions.
2. Procedure for QUESTIONS 7A and 8A: Key in, save and print.
3. Retrieve, copy and process according to the instructions in part B of each question. Print and hand in part A as well as part B.
4. Each answer must be printed on a separate A4 paper. Use only ONE side of the paper.

**GENERAL**

1. A computer ruler and ASCII codes may be used.
  2. NO notes or any nonpermissible material may be hidden in or transcribed into these articles.
  3. Use only COURIER NEW 12 pt except if otherwise indicated in the question paper.
  4. Save your work at regular intervals to prevent loss of keyed-in data during a power failure. Only the duration of the power failure will be allowed additionally. NO extra time will be allowed for loss of work.
  5. In the event of a computer or printer defect the invigilator will make the necessary arrangements for you to continue with the examination and the actual time lost will be allowed additionally.
  6. Key in the QUESTION NUMBER as well as your EXAMINATION NUMBER at each question. NO questions without EXAMINATION NUMBERS will be marked.
  7. At the end of the examination session, hand in the following:
    - 7.1 EXAMINATION FOLDER with PRINTOUTS to be marked in the same order as the questions in the question paper.
    - 7.2 The compact disk/memory stick on which your work was saved, properly marked with your EXAMINATION NUMBER. If work is saved on the hard drive/network, the invigilator(s) must copy the work to a compact disk/memory stick and then it must be deleted immediately from the hard drive/network. Students' answers must be kept for at least 6 MONTHS.
    - 7.3 ALL other PRINTOUTS. NO PRINTOUTS may be taken out of the examination room or put into bins.
  8. Any attempt to obtain information or to give information to another candidate is a violation of the examination rules and will be regarded in a serious light. If you are found guilty of such a violation, steps will be taken against you.
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# **SECTION A**

## **TYPING TECHNIQUE**

**DO NOT TURN THE PAGE BEFORE THE  
INVIGILATOR INSTRUCTS YOU TO DO SO.**

	<b>TIME</b>	<b>MARKS</b>
<b>QUESTION 1: TIMED ACCURACY TEST</b>	<b>10 minutes</b>	<b>20</b>
<b>QUESTION 2: TABULAR STATEMENT</b>	<b>28 minutes</b>	<b>44</b>
<b>QUESTION 3: BUSINESS LETTER</b>	<b>37 minutes</b>	<b>60</b>
<b>QUESTION 4: COLUMNS</b>	<b>33 minutes</b>	<b>56</b>
<b>QUESTION 5: AFRICAN LANGUAGE</b>	<b>12 minutes</b>	<b>20</b>
<b>TOTAL</b>	<b>120 minutes</b>	<b>200</b>

**QUESTION 1: TIMED ACCURACY TEST****TIME: 10 MINUTES****MARKS: 20**

<b>MARGINS:</b> Left: 2,54 cm/1" Right: 2,54 cm/1" SPEED: 35 wpm (minimum requirement) FONT: Courier New 12 pt	<b>PAPER:</b> A4 portrait <b>HYPHENATION:</b> No <b>ALIGNMENT:</b> Left <b>LINE SPACING:</b> 2 (double)
<ol style="list-style-type: none"><li>1. The following timed accuracy test must be keyed in ONCE only.</li><li>2. The passage allows for speeds of 35 and 40 words per minute.</li><li>3. Key in your EXAMINATION NUMBER (left), the QUESTION NUMBER and your STATION/COMPUTER NUMBER (right) as a header.</li><li>4. Save the document as Q1 and print it.</li><li>5. Your test must be collected and signed by the invigilator at the BEGINNING of the EXAMINATION. ALL pages need to be signed.</li></ol>	

There is no clinical or scientific evidence that supports the theory that a specialised diet may cause or benefit individuals with ulcerative colitis. However patients may find that certain foods aggravate symptoms of ulcerative colitis and they should avoid such foods.

The most common symptoms of ulcerative colitis are rectal bleeding, abdominal cramping and diarrhoea. It may be reasonable to keep a food journal to track what foods aggravate symptoms.

Discuss your dietary needs with your treating doctor or a dietician that specialises in ulcerative colitis and diet. The cause of ulcerative colitis is not known. To date there has been no convincing evidence that it is caused by infection or is contagious.

Ulcerative colitis likely involves abnormal activation of the immune system in the intestines. This system is supposed to defend the body against harmful bacteria, viruses, fungi and other foreign invaders. Normally the immune system is activated only when the body is exposed to harmful invaders.

**QUESTION 1 (CONTINUED)**

In patients with ulcerative colitis however the immune system is abnormally and chronically activated in the absence of any known invader. The continued abnormal activation of the immune system causes chronic inflammation and ulceration portions of the large intestine.

This susceptibility to abnormal activation of the immune system is genetically inherited. First degree relative's brothers, sisters, children, and parents of patients with IBD are therefore more likely to develop these diseases. There have been multiple studies using genome wide association scans investigating genetic susceptibility in ulcerative colitis.

At this early point in the research it is still unclear how these genetic associations will be applied to treating the disease but they might have future implications for understanding pathogenesis and creating new treatments. → 35 wpm

Common symptoms of ulcerative colitis include rectal bleeding, abdominal pain and diarrhoea, but there → 40 wpm

**[20]**

**QUESTION 2: TABULAR STATEMENT****TIME: 28 MINUTES****MARKS: 44**

MARGINS: Equal FONT: Courier New 12 pt PAPER: A4 landscape	ALIGNMENT: As indicated LINE SPACING: Single except where indicated otherwise
1. Key in your EXAMINATION NUMBER (left), the QUESTION NUMBER and your STATION/COMPUTER NUMBER (right) as a header. 2. Take ALL proofreading signs into consideration. 3. Insert a TABLE. 4. Save the document as Q2 and print it. 5. Put the PRINTOUT in your EXAMINATION FOLDER.	

Table thirteen <sup>sp</sup> caps, bold in figures

# <sup>sp</sup>

Cost comparison table for biologic agents for ulcerative colitis<sup>1</sup> uc, ital, centre

#

Drug/Comparator	Recommended dose	Dosage form	Average annual drug cost	Strength	Price [(\$)]
Simponi Golimumab	50 mg/0.5 ml 200 mg week 0, 100 mg week 2, and 50 or 100 mg every 4 weeks thereafter <sup>a</sup>	Pre-filled syringe or auto-injector	Year 1: [22,356] [Thereafter: [19,375]	50 mg/0.5 ml [100 mg/1.0 ml]	1,490.4
Infliximab Remicade	5 mg/kg at weeks 0, 2 and 6, and every 8 weeks thereafter <sup>b</sup>	Vial for IV infusion	Year 1: [29,046] [Thereafter: [23,600]	100 mg/10 ml	968.20
Adalimumab Humira	160 mg week 0, 80 mg week 2 and 40 mg every 2 weeks thereafter <sup>c</sup>	Pre-filled syringe or auto-injector	Year 1: [22,356] [Thereafter: [19,249]	40 mg/0.8 ml	470.63 740.36 [ste]

# <sup>sp</sup>

<sup>1</sup> Arrange in alphabetical order

<sup>b</sup> Assumes 75 kg patient and no wastage of partially used vials.

<sup>c</sup> Dosing for adalimumab is based on / US product monograph for Humira.

<sup>a</sup> Manufacturer-submitted price. All prices are from / Ontario Drug Benefit fees.

# IV = Intravenous and UC = Ulcerative Colitis

**[44]**



**QUESTION 3: BUSINESS LETTER****TIME: 37 MINUTES****MARKS: 60**

<b>MARGINS:</b> Left: 3,81 cm/1.5" Right: 2,54 cm/1" <b>FONT:</b> Courier New 12 pt except where indicated otherwise	<b>PAPER:</b> Letterhead <b>HYPHENATION:</b> Yes <b>ALIGNMENT:</b> Left <b>LINE SPACING:</b> Single with double line spacing between paragraphs
1. Retrieve the letterhead QUESTION 3 on your network/hard disk/memory stick. 2. Key in your EXAMINATION NUMBER and your STATION/COMPUTER NUMBER (left) as a footer. 3. Take ALL proofreading signs into consideration. 4. Save the document as Q3 and print it. 5. Put the PRINTOUT in your EXAMINATION FOLDER.	

Today's date in full

✦

Mr KS Mukwevho

PO Box 987

Khubvi

Λ

Λ Insert postal code: 0977

✦

Dear Sir/Madam

✦

→ Move

✦

had stet

If you or someone you love have recently been diagnosed with ulcerative colitis, it's important to begin learning as much as you can about what ulcerative colitis is. [By developing a better understanding of ulcerative colitis you will be more prepared to manage its symptoms and live a full Life.

✦

Ulcerative colitis is a chronic disease of / large intestine also known as / colon in which / lining of / colon becomes inflamed and develops tiny open sores or ulcers can that produce pus and mucous. / combination of inflammation and ulceration cause abdominal discomfort and frequent emptying of / colon te.

-----page break -----

Number second page top centred

What are / signs and symptoms? uc, ital, u/line

✦

Be sure to consult your Λ if you experience any of / following symptoms: Λ doctor

✦

movements trs  
 bowel become looser and more urgent  
 persistent diarrhoea  
 stool is generally bloody  
 spasmodic abdominal pain

s/s, ital, insert bullets and indent

✦

What is ulcerative colitis? uc, bold, centre

**QUESTION 3 (CONTINUED)**

People suffering from ulcerative colitis often experience loss of appetite and may lose weight as a result.

Yours faithfully  
Florence Mutoti, Manager } Display correctly

# = letter space

Change ulcerative colitis to capital letters and bold

**[60]**

**QUESTION 4: COLUMNS****TIME: 33 MINUTES****MARKS: 56**

MARGINS: Left: 1,27 cm (0,5") Right: 1,27 cm (0,5") PAPER: A4 landscape	HYPHENATION: Yes ALIGNMENT: Left LINE SPACING: As indicated FONT: Arial 12 pt except where indicated otherwise
1. Key in your EXAMINATION NUMBER (left), the QUESTION NUMBER and your STATION/COMPUTER NUMBER (right) as a header. 2. Take ALL proofreading signs into consideration. 3. Save the document as Q4 and print it. 4. Put the PRINTOUT in your EXAMINATION FOLDER	

Candidate: Create TWO columns

Column 2

Mild symptoms may respond to: [14 pt, uc, bold, u/line]

‡

- Anti-diarrhoeal medicines;
- Enemas or suppositories that contain medicine;
- Amino salicylates. and [a]

‡

- These medicines relieve inflammation in / intestines.

‡

- They are also taken to keep / disease in remission.

‡

- Your doctor may prescribe these for a [runs on]

few weeks to control active disease.

‡

- Changes in your diet.

‡

For more information contact Muriel Mabel at ☎ 015/963/3490 [Courier New 8 pt, ital]

Column 1

Treatment for ulcerative colitis [14 pt, uc, bold, u/line]

‡

1. ‡ You may need to treat other problems such as anaemia or infection.

teenagers [stet]

[sp]

[2. ‡ Treatment in children and ~~teens~~ may include taking nutritional supplements to [NP]  
restore normal growth and sexual development. [3. ‡ If you don't have any [NP]  
symptoms or if your disease is not active you may not need treatment ~~either~~. [del]

[5. ‡ It often is easier to keep / disease in remission than to treat a flare-up. [NP]

[4. ‡ If you do have symptoms they usually can be with managed medicines to [NP]  
put / disease in remission.

Candidate: Replace paragraph numbers with asterisk [\*] and TWO letter spaces and indent. Arrange paragraphs in numerical order.

**[56]**

**QUESTION 5: AFRICAN LANGUAGE****TIME: 12 MINUTES****MARKS: 20**

<b>MARGINS:</b> Left: 2,54 cm (1") Right: 2,54 cm (1") FONT: Courier New 12 pt	<b>PAPER:</b> A4 portrait <b>HYPHENATION:</b> No <b>ALIGNMENT:</b> Left <b>LINE SPACING:</b> 1,5 (1½)
<ol style="list-style-type: none"><li>1. Key in your EXAMINATION NUMBER (left), the QUESTION NUMBER and your STATION/COMPUTER NUMBER (right) as a header.</li><li>2. Save the document as Q5 and print it.</li><li>3. Put the PRINTOUT in your EXAMINATION FOLDER.</li></ol>	

Vuvabyi bya fukuzane ya vele byi tolovelekile swinene, naswona vanhu vo tala vala va tshamile va twa hi byona. Fukuzane ya muxaka lowu hi yona yi nga tala swinene eka vaxisati eka tinxaka hinkwato ta ti fukuzane.

Nhlangano wa rihanyu wa misava, wu pimanyisa leswaku hi lembe ra 2004, vavasati va hundzile emisaveni.

**[20]****TOTAL SECTION A: 200**

**SECTION B****WORD PROCESSING****WORK FAST AND ACCURATELY**

<b>QUESTION 6:</b>	<b>PARAGRAPHS</b>	<b>A</b>	<b>Already keyed-in</b>	<b>-</b>
		<b>B</b>	<b>15 minutes</b>	<b>25</b>
<b>QUESTION 7:</b>	<b>MEMORANDUM</b>	<b>A</b>	<b>14 minutes</b>	<b>24</b>
		<b>B</b>	<b>12 minutes</b>	<b>20</b>
<b>QUESTION 8:</b>	<b>MENU</b>	<b>A</b>	<b>6 minutes</b>	<b>9</b>
		<b>B</b>	<b>13 minutes</b>	<b>22</b>
<b>TOTAL</b>			<b>60 minutes</b>	<b>100</b>

**QUESTION 6B: PROCESSING****TIME: 15 MINUTES****MARKS: 25**

1. Retrieve the document saved as Q6A. Process according to the instructions and as indicated in the text.
2. Change the left- and right-hand margin to 2,54 cm/1". Use Courier New 12 pt.
3. Align the document left and use the hyphenation function.
4. Change the line spacing to single-line spacing with double-line spacing between paragraphs.
5. Key in your EXAMINATION NUMBER (left), the QUESTION NUMBER and your STATION/COMPUTER NUMBER (right) as a header.
6. Save the document as Q6B and print it.
7. Put the PRINTOUTS in your EXAMINATION COVER.

Candidate:

1. Change 'Immunomodulator(s)' to capital letters and bold.
2. Insert page number at the top centred on page 2 only.

^ What are the treatments for ulcerative colitis? Comic Sans 14 pt, uc, bold, ital

±  
Both medication and surgery have been used to treat ulcerative colitis. However, surgery is reserved for those with severe inflammation and life-threatening complications.

There is no medication that can cure ulcerative colitis uc, bold  
 [Patients with ulcerative colitis will typically experience NP  
 periods of relapse (worsening of inflammation) followed by  
 periods of remission (resolving of inflammation) lasting from  
 months to years. [During relapses symptoms of abdominal NP  
 pain, diarrhoea and rectal bleeding worsen. During remissions  
 these symptoms subside. Remissions usually occur because of  
 treatment with medication or surgery but occasionally they  
 occur spontaneously, that is without any treatment.

^ What are ulcerative colitis medication? Comic Sans 14 pt, uc, bold, ital

[Since ulcerative colitis cannot be cured by medication the NP  
 goals of treatment with medication are to: insert

NP Replace paragraph numbers with ±

± induce remissions ± maintain remissions ± minimise  
 side effects of treatment ± improve the quality of life and  
± minimise risk of cancer. Change all first letters that are underlined to uc

[Treatment of ulcerative colitis with medication is similar,  
 though not always identical, to treatment of Crohn's disease.  
replace [Crohn's] with [chronic]

-----page break-----

**QUESTION 6B (CONTINUED)**

NP Replace paragraph numbers with ☺ replace [5] with [five]

Medication for treating ulcerative colitis includes ☺ anti-inflammatory agents such as 5-ASA compounds, ☺ systemic corticosteroids, ☺ topical corticosteroids and ☺ immunomodulators. Change all first letters that are underlined to uc

[Anti-inflammatory medication that decreases intestinal inflammation is analogous to arthritis medication that decreases joint inflammation (arthritis). The anti-inflammatory medication used in the treatment of ulcerative colitis is:

replace [5] with [five]

[Topical 5-ASA compounds such as sulfasalazine ~~(Azulfidine)~~, olsalazine dipentum and mesalamine ~~(pentasa, asacol, lialda, apriso and rowasa enema)~~ that need direct contact with the inflamed tissue in order to be effective. NP del

NP

trs

[Systemic anti-inflammatory such medication as corticosteroids that decrease inflammation throughout the body without direct contact with the inflamed tissue. Systemic corticosteroids have predictable side effects with long term use.

[Immunomodulators are medication that suppress the body's immune system either by reducing the cells that are responsible for immunity, or by interfering with proteins that are important in promoting inflammation. NP

NP

[Immunomodulators are becoming increasingly important treatment for patients with severe ulcerative colitis who do not respond adequately to anti-inflammatory agents. Examples of immunomodulators include 6-mercaptopurine (6-MP), replace [6] with [six] azathioprine ~~(Imuran)~~, methotrexate ~~(Rheumatrex, Trexall, Cyclosporine Gengraf and Neoral)~~. del

[It has long been observed that the risk of ulcerative colitis appears to be higher in nonsmokers and in ex-smokers. In certain circumstances, patients improve when treated with nicotine. NP

‡

^ What are immunomodulator medication? Comic Sans 14 pt, uc, bold, ital

‡

^ Immunomodulators are medication that weaken the body's immune system.

[25]

**QUESTION 7A: MEMORANDUM****TIME: 14 MINUTES****MARKS: 24**

<b>MARGINS:</b> Left: 2,54 cm/1" Right: 2,54 cm/1" FONT: Courier New 12 pt	<b>PAPER:</b> A4 portrait <b>HYPHENATION:</b> No <b>ALIGNMENT:</b> Left <b>LINE SPACING:</b> Single
<ol style="list-style-type: none"><li>1. Key in your EXAMINATION NUMBER (left), the QUESTION NUMBER and your STATION/COMPUTER NUMBER (right) as a header.</li><li>2. Save the document as Q7A and print it.</li><li>3. Put the PRINTOUT in your EXAMINATION FOLDER.</li></ol>	

Surgery for UC usually involves removing the entire colon and the rectum.

Removal of the colon and rectum is the only permanent cure for UC. This procedure also eliminates the risk of developing colon cancer.

Surgery in UC is reserved for the following patients:

Patients with fulminant colitis and toxic megacolon who are not responding readily to medication.

Patients with long standing pancolitis.

Patients who have had years of severe colitis which has responded poorly to medication.

(24)



**QUESTION 7B: PROCESSING****TIME: 12 MINUTES****MARKS: 20**

1. Retrieve the document saved as Q7A.
2. Process according to the instructions and as indicated in the text.
3. Change QUESTION 7A in the header to QUESTION 7B.
4. Save the document as Q7B and print it.
5. Put the PRINTOUT in your EXAMINATION COVER.

Λ Memorandum sp caps, bold, centre

⊕

insert horizontal lines as indicated

⊕

To: ⚡⚡ All Clinic Managers

From: ⚡⚡ Head of Department

Date: ⚡⚡ Today's date in descending order

†

}

Λ, uc, d/s

⊕

Λ Surgery for ulcerative colitis uc, bold, ital

Surgery for UC usually involves removing the entire colon and the rectum.

⊕

Removal of the colon and rectum is the only permanent cure for UC. runs on

This procedure also eliminates the risk of developing colon cancer.

⊕

Surgery in UC is reserved for the following patients: } uc, u/line

⊕

⌚ Patients with fulminant colitis and toxic megacolon who are not responding readily to medication.

⊕

⌚ Patients with long standing pancolitis.

~~Patients who have had years of severe colitis which has responded poorly to medication.~~ del

⊕

Use CN 8 pt

Λ For more information about ulcerative colitis visit [www.ulcerativecolitis.co.za](http://www.ulcerativecolitis.co.za).

Replace [UC ] with [ulcerative colitis] in uc

⌚ Use Webbing symbol and indent

(20)  
[44]

**QUESTION 8A: MENU****TIME: 6 MINUTES****MARKS: 9**

<b>MARGINS:</b> Left: 3,81 cm/1,5" Right: 2,54 cm/1" FONT: Courier New 12 pt	<b>PAPER:</b> A4 portrait <b>HYPHENATION:</b> No <b>ALIGNMENT:</b> Left <b>LINE SPACING:</b> Double
<ol style="list-style-type: none"><li>1. Key in your EXAMINATION NUMBER (left), the QUESTION NUMBER and your STATION/COMPUTER NUMBER (right) as a header.</li><li>2. Save the document as Q8A and print it.</li><li>3. Put the PRINTOUT in your EXAMINATION FOLDER.</li></ol>	

Menu

Whole grains

Breads Cereals Pastas

Starches

Well-cooked white rice

Nuts

Seeds

Legumes

Vegetables

Fruits

Sulfate

Dairy

Gluten

Foods to enjoy

Foods to enjoy

Crackers and cereals made with refined white flour

(9)

**QUESTION 8B: PROCESSING****TIME: 13 MINUTES****MARKS: 22**

1. Retrieve the document saved as Q8A.
2. Process according to the instructions and as indicated in the text.
3. Change line spacing to single except where indicated otherwise.
4. Change QUESTION 8A in the header to QUESTION 8B.
5. Save the document as Q8B and print it.
6. Put the PRINTOUT in your EXAMINATION COVER.

Λ Foods that you should use with ulcerative colitis

16 pt, uc, bold, centre

✦

Menu sp caps, bold

✦

Whole grains uc, bold

centre

align right

Breads

Cereals

Pastas

✦

Starches uc, bold

~~Well-cooked white rice~~ [Q]

Λ Brown rice and other whole grain starches

Nuts

Seeds

✦

Legumes uc, bold

Λ Dried peas, beans and lentils

✦

→ Move

✦

Vegetables uc, bold

Λ Fibrous vegetables, like skinned or peeled

{ Fruits uc, bold

Λ Fibrous fruits

✦

Sulfate uc, bold

Λ Sulfate and sulfides

✦

Dairy uc, bold

Λ Dairy products

✦

Gluten uc, bold

Λ Gluten containing foods

✦

Foods to enjoy uc, bold

~~Foods to enjoy~~ [Q]

~~Crackers and cereals made with refined white flour~~ [Q]

Λ Oils like olive oil and coconut oil

Candidate:

Insert the following footer in Arial

Black 10 pt:

It's important to remember that  
your diet plays a vital role in your  
overall health.

(22)

[31]

**TOTAL SECTION B: 100**  
**GRAND TOTAL: 300**