



27/2

Hoërskool Johan Jurgens

Computer Applications Technology

Paper 2 (Theory)

Themba
27102126

Grade 12

Date: 4 March 2026

Time: 1 Hour

Marks: 50

Examiner: Ms. M. Hugo

Moderator: Mrs T. Themba

Instructions and Information:

- 1 This question paper consists of TWO Sections:
SECTION A (15 Marks)
SECTION B (35 Marks)
- 2 Answer ALL the questions.
- 3 Number the answers correctly according to the numbering system used in this test.
- 4 **Start EACH question in Section B only (Questions 4 and 5) on top of a NEW page.**
- 5 **Leave a line after EACH sub-question for Section B only.**
- 6 Draw a right-hand margin on every page.
- 7 Generally, one mark is allocated per fact; therefore, a 2-mark question would usually require TWO facts, et cetera.
- 8 Write neatly and legibly.

THIS QUESTION PAPER CONSISTS OF 6 PAGES

10

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THE HISTORY OF THE

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22

23

SECTION A

QUESTION 1: MATCHING COLUMNS

Choose the term/concept from COLUMN B that matches the description in COLUMN A. Write only the letter (A–K) next to the question number (1.1–1.5) on your folio paper, for example 1.6 K.

Column A		Column B
1.1	A web browser that was developed by Apple.	A. Safari B. ISP
1.2	A powerful computer that provides shared resources (such as printers and files) to network users.	C. Server D. 3D Printer E. HTML
1.3	When changes are made to a file stored on your computer and in the cloud, the files will be updated to the latest version in both locations.	F. Internet G. Synchronisations H. HTTPS
1.4	Creates three-dimensional objects from a digital model layer by layer.	I. URL J. Streaming
1.5	When companies/schools allow users to bring their own devices to connect to their network.	K. BYOD

SUBTOTAL (QUESTION 1) [5]

QUESTION 2: TRUE / FALSE

Indicate whether each of the following statements are TRUE or FALSE. If the statement is FALSE, then you **MUST** also write the word(s) which should replace the underlined word to make the statement TRUE. In other words, you **cannot** just write down FALSE to receive the mark.

- 2.1 A database table consists of fields (columns) and records (rows). (1)
- 2.2 Devices needs a UPS for wired/wireless network connections. (1)
- 2.3 Email and instant messaging are both designed for real-time communication. (1)
- 2.4 A URL is the unique address of a web page. (1)
- 2.5. The SUM function can add text and values in Excel. (1)

SUBTOTAL (QUESTION 2) [5]

QUESTION 7: MATCHING COLUMNS

The following table shows the number of employees in each department of a company. The columns represent the departments and the rows represent the number of employees.

Match the departments in column 1 with the number of employees in column 2.

Department	Number of Employees
Accounting	15
Marketing	20
Human Resources	10
Operations	30
Finance	12
IT	8
Legal	5
Production	25
Quality Control	18
Customer Service	22
Research & Development	14
Sales	35
Administration	7
Engineering	28
Procurement	11
Logistics	16
Manufacturing	40
Compliance	6
Business Development	9
Operations	32
Finance	13
IT	10
Legal	4
Production	27
Quality Control	19
Customer Service	21
Research & Development	15
Sales	33
Administration	8
Engineering	29
Procurement	12
Logistics	17
Manufacturing	42
Compliance	7
Business Development	11
Operations	34
Finance	14
IT	12
Legal	5
Production	28
Quality Control	20
Customer Service	23
Research & Development	16
Sales	36
Administration	9
Engineering	30
Procurement	13
Logistics	18
Manufacturing	44
Compliance	8
Business Development	12
Operations	35
Finance	15
IT	13
Legal	6
Production	29
Quality Control	21
Customer Service	24
Research & Development	17
Sales	37
Administration	10
Engineering	31
Procurement	14
Logistics	19
Manufacturing	46
Compliance	9
Business Development	13
Operations	36
Finance	16
IT	14
Legal	7
Production	30
Quality Control	22
Customer Service	25
Research & Development	18
Sales	38
Administration	11
Engineering	32
Procurement	15
Logistics	20
Manufacturing	48
Compliance	10
Business Development	14
Operations	37
Finance	17
IT	15
Legal	8
Production	31
Quality Control	23
Customer Service	26
Research & Development	19
Sales	39
Administration	12
Engineering	33
Procurement	16
Logistics	21
Manufacturing	50
Compliance	11
Business Development	15
Operations	38
Finance	18
IT	16
Legal	9
Production	32
Quality Control	24
Customer Service	27
Research & Development	20
Sales	40
Administration	13
Engineering	34
Procurement	17
Logistics	22
Manufacturing	52
Compliance	12
Business Development	16
Operations	39
Finance	19
IT	17
Legal	10
Production	33
Quality Control	25
Customer Service	28
Research & Development	21
Sales	41
Administration	14
Engineering	35
Procurement	18
Logistics	23
Manufacturing	54
Compliance	13
Business Development	17
Operations	40
Finance	20
IT	18
Legal	11
Production	34
Quality Control	26
Customer Service	29
Research & Development	22
Sales	42
Administration	15
Engineering	36
Procurement	19
Logistics	24
Manufacturing	56
Compliance	14
Business Development	18
Operations	41
Finance	21
IT	19
Legal	12
Production	35
Quality Control	27
Customer Service	30
Research & Development	23
Sales	43
Administration	16
Engineering	37
Procurement	20
Logistics	25
Manufacturing	58
Compliance	15
Business Development	19
Operations	42
Finance	22
IT	20
Legal	13
Production	36
Quality Control	28
Customer Service	31
Research & Development	24
Sales	44
Administration	17
Engineering	38
Procurement	21
Logistics	26
Manufacturing	60
Compliance	16
Business Development	20
Operations	43
Finance	23
IT	21
Legal	14
Production	37
Quality Control	29
Customer Service	32
Research & Development	25
Sales	45
Administration	18
Engineering	39
Procurement	22
Logistics	27
Manufacturing	62
Compliance	17
Business Development	21
Operations	44
Finance	24
IT	22
Legal	15
Production	38
Quality Control	30
Customer Service	33
Research & Development	26
Sales	46
Administration	19
Engineering	40
Procurement	23
Logistics	28
Manufacturing	64
Compliance	18
Business Development	22
Operations	45
Finance	25
IT	23
Legal	16
Production	39
Quality Control	31
Customer Service	34
Research & Development	27
Sales	47
Administration	20
Engineering	41
Procurement	24
Logistics	29
Manufacturing	66
Compliance	19
Business Development	23
Operations	46
Finance	26
IT	24
Legal	17
Production	40
Quality Control	32
Customer Service	35
Research & Development	28
Sales	48
Administration	21
Engineering	42
Procurement	25
Logistics	30
Manufacturing	68
Compliance	20
Business Development	24
Operations	47
Finance	27
IT	25
Legal	18
Production	41
Quality Control	33
Customer Service	36
Research & Development	29
Sales	49
Administration	22
Engineering	43
Procurement	26
Logistics	31
Manufacturing	70
Compliance	21
Business Development	25
Operations	48
Finance	28
IT	26
Legal	19
Production	42
Quality Control	34
Customer Service	37
Research & Development	30
Sales	50
Administration	23
Engineering	44
Procurement	27
Logistics	32
Manufacturing	72
Compliance	22
Business Development	26
Operations	49
Finance	29
IT	27
Legal	20
Production	43
Quality Control	35
Customer Service	38
Research & Development	31
Sales	51
Administration	24
Engineering	45
Procurement	28
Logistics	33
Manufacturing	74
Compliance	23
Business Development	27
Operations	50
Finance	30
IT	28
Legal	21
Production	44
Quality Control	36
Customer Service	39
Research & Development	32
Sales	52
Administration	25
Engineering	46
Procurement	29
Logistics	34
Manufacturing	76
Compliance	24
Business Development	28
Operations	51
Finance	31
IT	29
Legal	22
Production	45
Quality Control	37
Customer Service	40
Research & Development	33
Sales	53
Administration	26
Engineering	47
Procurement	30
Logistics	35
Manufacturing	78
Compliance	25
Business Development	29
Operations	52
Finance	32
IT	30
Legal	23
Production	46
Quality Control	38
Customer Service	41
Research & Development	34
Sales	54
Administration	27
Engineering	48
Procurement	31
Logistics	36
Manufacturing	80
Compliance	26
Business Development	30
Operations	53
Finance	33
IT	31
Legal	24
Production	47
Quality Control	39
Customer Service	42
Research & Development	35
Sales	55
Administration	28
Engineering	49
Procurement	32
Logistics	37
Manufacturing	82
Compliance	27
Business Development	31
Operations	54
Finance	34
IT	32
Legal	25
Production	48
Quality Control	40
Customer Service	43
Research & Development	36
Sales	56
Administration	29
Engineering	50
Procurement	33
Logistics	38
Manufacturing	84
Compliance	28
Business Development	32
Operations	55
Finance	35
IT	33
Legal	26
Production	49
Quality Control	41
Customer Service	44
Research & Development	37
Sales	57
Administration	30
Engineering	51
Procurement	34
Logistics	39
Manufacturing	86
Compliance	29
Business Development	33
Operations	56
Finance	36
IT	34
Legal	27
Production	50
Quality Control	42
Customer Service	45
Research & Development	38
Sales	58
Administration	31
Engineering	52
Procurement	35
Logistics	40
Manufacturing	88
Compliance	30
Business Development	34
Operations	57
Finance	37
IT	35
Legal	28
Production	51
Quality Control	43
Customer Service	46
Research & Development	39
Sales	59
Administration	32
Engineering	53
Procurement	36
Logistics	41
Manufacturing	90
Compliance	31
Business Development	35
Operations	58
Finance	38
IT	36
Legal	29
Production	52
Quality Control	44
Customer Service	47
Research & Development	40
Sales	60
Administration	33
Engineering	54
Procurement	37
Logistics	42
Manufacturing	92
Compliance	32
Business Development	36
Operations	59
Finance	39
IT	37
Legal	30
Production	53
Quality Control	45
Customer Service	48
Research & Development	41
Sales	61
Administration	34
Engineering	55
Procurement	38
Logistics	43
Manufacturing	94
Compliance	33
Business Development	37
Operations	60
Finance	40
IT	38
Legal	31
Production	54
Quality Control	46
Customer Service	49
Research & Development	42
Sales	62
Administration	35
Engineering	56
Procurement	39
Logistics	44
Manufacturing	96
Compliance	34
Business Development	38
Operations	61
Finance	41
IT	39
Legal	32
Production	55
Quality Control	47
Customer Service	50
Research & Development	43
Sales	63
Administration	36
Engineering	57
Procurement	40
Logistics	45
Manufacturing	98
Compliance	35
Business Development	39
Operations	62
Finance	42
IT	40
Legal	33
Production	56
Quality Control	48
Customer Service	51
Research & Development	44
Sales	64
Administration	37
Engineering	58
Procurement	41
Logistics	46
Manufacturing	100
Compliance	36
Business Development	40
Operations	63
Finance	43
IT	41
Legal	34
Production	57
Quality Control	49
Customer Service	52
Research & Development	45
Sales	65
Administration	38
Engineering	59
Procurement	42
Logistics	47
Manufacturing	102
Compliance	37
Business Development	41
Operations	64
Finance	44
IT	42
Legal	35
Production	58
Quality Control	50
Customer Service	53
Research & Development	46
Sales	66
Administration	39
Engineering	60
Procurement	43
Logistics	48
Manufacturing	104
Compliance	38
Business Development	42
Operations	65
Finance	45
IT	43
Legal	36

QUESTION 3: MULTIPLE CHOICE QUESTIONS

Various options are given as possible answers to the questions. Choose the correct answer and write only the letter (A–D) next to the question number (3.1–3.5), for example 3.6 D.

3.1 Which of the following is an example of instant messaging (IM)?

- A Outlook
- B WhatsApp
- C Gmail
- D Thunderbird

(1)

3.2 What is the primary purpose of a network?

- A. To create video content
- B. To take photos
- C. To connect devices for communication and resource sharing
- D. To write documents and spreadsheets

(1)

3.3 Which function in Excel calculates the average of a range of cells?

- A SUM
- B COUNT
- C AVERAGE
- D MAX

(1)

3.4 In a database, a field that uniquely identifies each record is called a ...

- A. foreign Key.
- B. primary Key.
- C. record Key.
- D. main Field.

(1)

3.5 Which feature in Word allows you to send personalised letters to multiple recipients?

- A Track Changes
- B Mail Merge
- C Templates
- D Styles

(1)

SUBTOTAL (QUESTION 3): [5]

TOTAL FOR SECTION A: [15]

CHAPTER 3: THE CHINESE ECONOMY

1. The Chinese economy has experienced rapid growth since 1978, driven by reforms in the household sector and the establishment of Special Economic Zones (SEZs). The government has implemented a series of policies to attract foreign investment and promote exports, leading to a significant increase in GDP and living standards.

2. The Chinese government has implemented a series of reforms to improve the efficiency of the economy and attract foreign investment.

- A. Privatization
- B. Foreign Investment
- C. Export Promotion
- D. All of the above

3. The Chinese government has implemented a series of reforms to improve the efficiency of the economy and attract foreign investment.

- A. Privatization
- B. Foreign Investment
- C. Export Promotion
- D. All of the above

4. The Chinese government has implemented a series of reforms to improve the efficiency of the economy and attract foreign investment.

5. The Chinese government has implemented a series of reforms to improve the efficiency of the economy and attract foreign investment.

- A. Privatization
- B. Foreign Investment
- C. Export Promotion
- D. All of the above

6. The Chinese government has implemented a series of reforms to improve the efficiency of the economy and attract foreign investment.

- A. Privatization
- B. Foreign Investment
- C. Export Promotion
- D. All of the above

7. The Chinese government has implemented a series of reforms to improve the efficiency of the economy and attract foreign investment.

- A. Privatization
- B. Foreign Investment
- C. Export Promotion
- D. All of the above

8. The Chinese government has implemented a series of reforms to improve the efficiency of the economy and attract foreign investment.

9. The Chinese government has implemented a series of reforms to improve the efficiency of the economy and attract foreign investment.

SECTION B

QUESTION 4: SYSTEMS TECHNOLOGY

Smart Start Tutoring is a small extra-lesson centre. The owner uses computers to:

- Register learners using Google Forms/Microsoft Forms
- Store learner information digitally
- Print worksheets
- Communicate with parents via email

Some computers freeze when many programs are open. The printer sometimes prints faded pages. The owner wants to replace old HDDs with SSDs.

Use the scenario to answer the questions below.

- 4.1 Define the term **convergence**. (2)
- 4.2 Identify the type of user that the owner is. (1)
- 4.3 Give **ONE** reason for your answer in 4.2. (1)
- 4.4 State **ONE** way in which ICT improves productivity at the centre. (1)
- 4.5 List **TWO** input devices used at the centre. (2)
- 4.6 The printer prints faded pages.
State **ONE** possible cause and solution. (2)
- 4.7 Explain **ONE** advantage of replacing an HDD with an SSD. (2)
- 4.8 Explain why adding more RAM may stop computers from freezing. (1)
- 4.9 Differentiate between **web-based** and **installed** software. (4)
- 4.10 State **TWO advantages** of using Google Forms/Microsoft Forms for registration. (2)
- 4.11 Give **ONE reason** why software updates are important. (2)

SUBTOTAL (QUESTION 4) [20]

EXERCISES

1. Let $f(x) = x^2 + 2x + 1$. Find $f'(x)$.

2. Let $f(x) = x^3 - 4x^2 + 7x - 1$. Find $f'(x)$.

3. Let $f(x) = \sin(x)$. Find $f'(x)$.

4. Let $f(x) = \cos(x)$. Find $f'(x)$.

5. Let $f(x) = e^x$. Find $f'(x)$.

6. Let $f(x) = \ln(x)$. Find $f'(x)$.

7. Let $f(x) = x^2 \sin(x)$. Find $f'(x)$.

8. Let $f(x) = x^3 \cos(x)$. Find $f'(x)$.

9. Let $f(x) = \frac{1}{x}$. Find $f'(x)$.

10. Let $f(x) = \frac{1}{x^2}$. Find $f'(x)$.

11. Let $f(x) = \frac{1}{x^3}$. Find $f'(x)$.

12. Let $f(x) = \frac{1}{x^4}$. Find $f'(x)$.

13. Let $f(x) = \frac{1}{x^5}$. Find $f'(x)$.

14. Let $f(x) = \frac{1}{x^6}$. Find $f'(x)$.

15. Let $f(x) = \frac{1}{x^7}$. Find $f'(x)$.

16. Let $f(x) = \frac{1}{x^8}$. Find $f'(x)$.

17. Let $f(x) = \frac{1}{x^9}$. Find $f'(x)$.

18. Let $f(x) = \frac{1}{x^{10}}$. Find $f'(x)$.

19. Let $f(x) = x^2 + 3x - 5$. Find $f'(x)$.

20. Let $f(x) = x^3 + 2x^2 - 7x + 4$. Find $f'(x)$.

21. Let $f(x) = x^4 + 5x^3 - 2x^2 + 8x - 1$. Find $f'(x)$.

22. Let $f(x) = x^5 + 6x^4 - 3x^3 + 9x^2 - 4x + 7$. Find $f'(x)$.

23. Let $f(x) = x^6 + 7x^5 - 4x^4 + 11x^3 - 5x^2 + 13x - 2$. Find $f'(x)$.

QUESTION 5: SOLUTION DEVELOPMENT

5 Spreadsheets are used to organise and analyse information.

5.1.1. What is the purpose of a COUNTA function? (1)

5.1.2 When would one use the SUMIFS function? (2)

5.1.3 When will the error message #REF! be displayed in an Excel spreadsheet? (1)

5.1.4 Data in a spreadsheet is usually sorted on cell values.

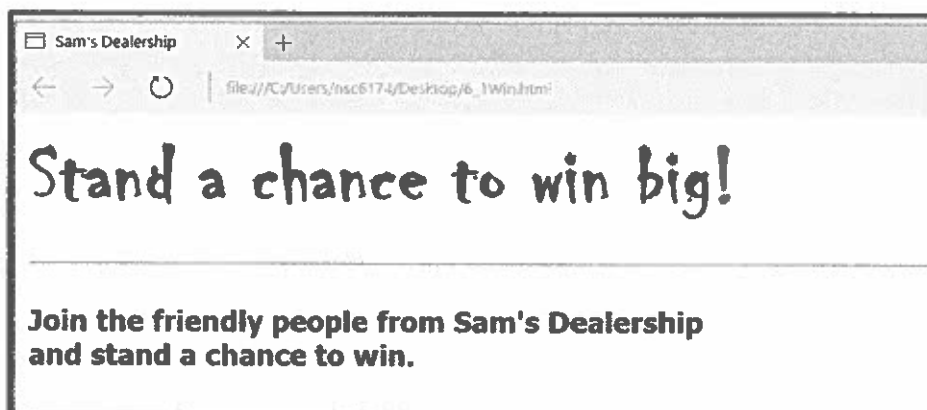
What other cell information can be used to sort data, excluding cell values? (1)

5.2 Suggest any THREE changes to the HTML code below to resemble the screenshot of the webpage. Indicate the line number of the HTML code and the suggested change. (3)

HTML CODE:

```
1 <html>
2   <head>
3     <title></title>
4   </head>
5
6   <body>
7     <font face="Tahoma">
8
9     <h2><font face="Chiller" size="10">Stand a
10    chance to win big!</font></h2>
11    <hr width = "50%" />
12    <h2>Join the friendly people from Sam's
13    Dealership and stand a chance to win.</h2>
14  </body>
15 </html>
```

WEB PAGE:



THE UNIVERSITY OF CHICAGO

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5.3 The database application is used to create forms, reports and queries.

5.3.1 A textbox was changed to a combo box on a form, but no values are visible in the combo box.

Give TWO reasons why the values for the combo box do not appear. (2)

5.3.2 Give TWO examples of functions that can be used in a report footer. (2)

5.3.3 Study the screenshot of two different queries.

Query 1

Field:	NumberOfNights	Amount	DOB
Table:	tbAccom	tbAccom	tbAccom
Sort:			
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:	<=5	<800 Or >2000	Is Null
or:			

Query 2

Field:	NumberOfNights	Amount	DOB
Table:	tbAccom	tbAccom	tbAccom
Sort:		Ascending	
Show:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Criteria:	<=5	<800	Is Null
or:		>2000	

Explain how the result of Query 2 will differ from Query 1 when executed. (3)

SUBTOTAL (QUESTION 5) [15]

TOTAL FOR SECTION B [35]

GRAND TOTAL SECTION A+B: [50]



Grundriss des Gebäudes mit den verschiedenen Räumen und den zugehörigen Möbeln.

- 1. Die Küche ist mit einem Esstisch und Stühlen ausgestattet.
- 2. Das Wohnzimmer hat einen großen Sofa und einen Fernseher.
- 3. Die Schlafzimmer sind mit Betten und Nachttischen eingerichtet.
- 4. Die Badezimmer sind mit Toiletten, Waschbecken und Duschwannen ausgestattet.
- 5. Die Büros sind mit Schreibtischen, Stühlen und Computern ausgestattet.