

A-Level Computer Science

Past-Paper Exercise Sheets — Question Index

45 subtopics • 296 questions • 2751 marks

1.1 Data Representation

7 questions, 45 marks • calculation x5, short answer x2

Source	Q	Type	Marks
9618/11 N25	1	calculation	7
9618/13 N25	2	calculation	6
9618/12 J25	2	calculation	7
9618/13 N24	6	calculation	10
9618/13 N24	8	short answer	6
9618/11 J24	7	short answer	3
9618/12 J24	7	calculation	6

1.1.1 Data Representation

6 questions, 35 marks • calculation x4, short answer x2

Source	Q	Type	Marks
9618/11 N25	1	calculation	7
9618/13 N25	2	calculation	6
9618/12 J25	2	calculation	7
9618/13 N24	8	short answer	6
9618/11 J24	7	short answer	3
9618/12 J24	7	calculation	6

1.2 Multimedia

6 questions, 66 marks • short answer x4, long answer, calculation

Source	Q	Type	Marks
9618/13 N25	1	short answer	7
9618/13 N25	7	long answer	14
9618/11 J25	3	short answer	7
9618/13 J25	1	short answer	14
9618/12 N24	7	short answer	7
9618/12 J24	2	calculation	17

1.3 Compression

4 questions, 47 marks • short answer x2, long answer, calculation

Source	Q	Type	Marks
9618/12 N25	6	short answer	6
9618/43 N25	2	long answer	24
9618/13 N24	6	calculation	10
9618/12 N24	7	short answer	7

2.1 Networks including the internet

7 questions, 85 marks • short answer x5, calculation, long answer

Source	Q	Type	Marks
9618/11 N25	7	short answer	14
9618/12 N25	5	short answer	13
9618/12 N25	8	short answer	10
9618/13 N25	4	short answer	7
9618/12 J25	6	short answer	19
9618/13 N24	9	calculation	14
9618/11 J24	8	long answer	8

3.1 Computers and their components

10 questions, 67 marks • short answer x6, long answer x2, calculation x2

Source	Q	Type	Marks
9618/11 N25	9	short answer	3
9618/11 N25	10	short answer	4
9618/12 N25	11	short answer	3
9618/11 J25	4	long answer	6
9618/11 J25	6	long answer	14
9618/12 N24	2	short answer	6
9618/12 N24	9	short answer	4
9618/13 N24	2	short answer	6
9618/13 N24	3	calculation	3
9618/11 J24	2	calculation	18

3.2 Logic Gates and Logic Circuits

9 questions, 54 marks • short answer x7, calculation, long answer

Source	Q	Type	Marks
9618/11 N25	3	short answer	4
9618/13 N25	3	short answer	4
9618/32 N25	6	short answer	9
9618/11 J25	1	short answer	4
9618/32 J25	7	short answer	8
9618/33 J25	3	short answer	8
9618/11 N24	5	short answer	6
9618/13 N24	1	calculation	5
9618/12 J24	1	long answer	6

4.1 Central Processing Unit (CPU) Architecture

6 questions, 58 marks • short answer x4, long answer x2

Source	Q	Type	Marks
9618/11 N25	6	short answer	7
9618/12 J25	1	short answer	9
9618/13 J25	2	long answer	10
9618/11 N24	3	short answer	16
9618/11 N24	8	short answer	4
9618/12 N24	3	long answer	12

4.2 Assembly Language

8 questions, 67 marks • short answer x7, long answer

Source	Q	Type	Marks
9618/11 N25	4	short answer	4
9618/12 N25	3	short answer	10
9618/13 N25	6	short answer	11
9618/32 N25	11	short answer	7
9618/12 J25	7	short answer	8
9618/13 J25	5	short answer	9
9618/12 N24	8	short answer	11
9618/11 J24	4	long answer	7

4.3 Bit manipulation

4 questions, 25 marks • short answer x2, calculation, long answer

Source	Q	Type	Marks
9618/11 J25	8	short answer	7
9618/13 J25	7	calculation	5
9618/13 N24	7	short answer	6
9618/12 J24	5	long answer	7

5.1 Operating Systems

3 questions, 31 marks • short answer x2, calculation

Source	Q	Type	Marks
9618/11 N25	5	short answer	10
9618/11 N24	4	short answer	17
9618/12 J24	6	calculation	4

5.2 Language Translators

6 questions, 57 marks • short answer x4, long answer, calculation

Source	Q	Type	Marks
9618/12 N25	10	short answer	7
9618/13 N25	8	short answer	10
9618/13 J25	3	short answer	15
9618/12 N24	4	long answer	10
9618/11 J24	3	short answer	5
9618/12 J24	8	calculation	10

6.1 Data Security

3 questions, 41 marks • long answer x2, calculation

Source	Q	Type	Marks
9618/11 J25	7	long answer	11
9618/11 J24	5	long answer	16
9618/12 J24	3	calculation	14

6.2 Data Integrity

4 questions, 43 marks • short answer x3, long answer

Source	Q	Type	Marks
9618/12 N25	1	short answer	2
9618/21 N25	6	short answer	9
9618/11 J24	5	long answer	16
9618/11 J23	2	short answer	16

7.1 Ethics and Ownership

6 questions, 46 marks • long answer x3, short answer x2, calculation

Source	Q	Type	Marks
9618/11 N25	8	short answer	9
9618/12 N25	2	long answer	6
9618/12 J25	3	long answer	12
9618/11 N24	7	short answer	4
9618/12 N24	5	long answer	9
9618/13 N24	5	calculation	6

8.1 Database Concepts

8 questions, 107 marks • short answer x5, long answer x2, calculation

Source	Q	Type	Marks
9618/11 N25	2	short answer	13
9618/12 N25	4	short answer	10
9618/13 N25	5	short answer	16
9618/11 J25	5	short answer	13
9618/11 N24	2	long answer	17
9618/12 N24	6	long answer	12
9618/11 J24	6	calculation	15
9618/12 J24	4	short answer	11

8.2 Database Management Systems (DBMS)

3 questions, 53 marks • short answer x2, calculation

Source	Q	Type	Marks
9618/13 N25	5	short answer	16
9618/13 J25	6	short answer	18
9618/13 N24	4	calculation	19

8.3 Data Definition Language (DDL) and Data Manipulation Language (DML)

8 questions, 116 marks • short answer x5, long answer x2, calculation

Source	Q	Type	Marks
9618/12 N25	4	short answer	10
9618/13 N25	5	short answer	16
9618/11 J25	5	short answer	13
9618/13 J25	6	short answer	18
9618/11 N24	2	long answer	17
9618/12 N24	6	long answer	12
9618/13 N24	4	calculation	19
9618/12 J24	4	short answer	11

9.1 Computational Thinking Skills

5 questions, 57 marks • short answer x3, calculation x2

Source	Q	Type	Marks
9618/21 J25	1	short answer	12
9618/22 N24	7	short answer	10
9618/23 N24	7	calculation	9
9618/21 J24	7	calculation	17
9618/22 J24	7	short answer	9

9.2 Algorithms

12 questions, 91 marks • short answer x5, long answer x4, calculation x3

Source	Q	Type	Marks
9618/21 N25	2	short answer	5
9618/22 N25	2	short answer	5
9618/23 N25	2	long answer	8
9618/21 J25	3	long answer	8
9618/22 J25	2	short answer	8
9618/22 J25	3	long answer	8
9618/22 J25	4	short answer	6
9618/22 J25	5	short answer	12
9618/23 J25	4	long answer	8
9618/23 N24	2	calculation	8
9618/23 N24	4	calculation	10
9618/21 J24	2	calculation	5

10.1 Data Types and Records

11 questions, 111 marks • short answer x8, calculation x3

Source	Q	Type	Marks
9618/21 N25	3	short answer	9
9618/22 N25	1	short answer	11
9618/31 N25	1	short answer	6
9618/22 J25	1	short answer	14
9618/23 J25	1	short answer	14
9618/32 J25	1	short answer	6
9618/21 N24	1	short answer	9
9618/21 N24	4	short answer	10
9618/23 N24	1	calculation	10
9618/21 J24	1	calculation	12
9618/22 J24	3	calculation	10

10.2 Arrays

11 questions, 123 marks • short answer x6, long answer x4, calculation

Source	Q	Type	Marks
9618/21 N25	4	short answer	9
9618/21 N25	5	short answer	6
9618/22 N25	4	short answer	13
9618/23 N25	4	short answer	6
9618/23 N25	5	short answer	8
9618/21 N24	6	short answer	9
9618/21 N24	8	long answer	15
9618/22 N24	2	long answer	9
9618/41 N24	1	long answer	22
9618/43 N24	1	calculation	22
9618/21 J24	4	long answer	4

10.3 Files

9 questions, 138 marks • short answer x4, long answer x4, calculation

Source	Q	Type	Marks
9618/22 N25	3	short answer	10
9618/22 N25	8	short answer	18
9618/23 N25	8	short answer	20
9618/43 N25	2	long answer	24
9618/21 J25	7	long answer	18
9618/23 J25	4	long answer	8
9618/23 J25	7	long answer	18
9618/31 J25	12	short answer	5
9618/42 N24	3	calculation	17

10.4 Introduction to Abstract Data Types (ADT)

9 questions, 89 marks • short answer x5, long answer x3, calculation

Source	Q	Type	Marks
9618/23 N25	3	short answer	5
9618/31 N25	9	short answer	9
9618/43 N25	2	long answer	24
9618/21 J25	5	long answer	7
9618/23 J25	2	short answer	11
9618/31 J25	4	short answer	7
9618/22 N24	3	short answer	7
9618/23 N24	3	calculation	8
9618/21 J24	3	long answer	11

11.1 Programming Basics

8 questions, 79 marks • short answer $x4$, calculation $x4$

Source	Q	Type	Marks
9618/21 N25	1	short answer	10
9618/22 N25	1	short answer	11
9618/21 J25	2	short answer	10
9618/21 N24	1	short answer	9
9618/23 N24	1	calculation	10
9618/23 N24	6	calculation	6
9618/21 J24	1	calculation	12
9618/22 J24	1	calculation	11

11.2 Constructs

9 questions, 64 marks • calculation $x4$, long answer $x3$, short answer $x2$

Source	Q	Type	Marks
9618/21 J25	4	short answer	8
9618/21 N24	2	long answer	6
9618/22 N24	5	long answer	7
9618/23 N24	2	calculation	8
9618/23 N24	4	calculation	10
9618/21 J24	5	short answer	6
9618/22 J24	2	calculation	9
9618/22 J24	4	long answer	4
9618/22 J24	5	calculation	6

11.3 Structured Programming

12 questions, 135 marks • short answer $x5$, long answer $x5$, calculation $x2$

Source	Q	Type	Marks
9618/21 N25	4	short answer	9
9618/22 N25	6	short answer	7
9618/22 N25	8	short answer	18
9618/21 J25	7	long answer	18
9618/23 J25	3	long answer	7
9618/23 J25	5	long answer	8
9618/21 N24	3	short answer	9
9618/22 N24	4	long answer	6
9618/22 N24	6	long answer	9
9618/23 N24	8	calculation	18
9618/21 J24	7	calculation	17
9618/22 J24	7	short answer	9

12.1 Program Development Life cycle

3 questions, 22 marks • short answer x2, long answer

Source	Q	Type	Marks
9618/22 N25	5	short answer	5
9618/21 N24	5	short answer	10
9618/23 N24	5	long answer	7

12.2 Program Design

7 questions, 60 marks • short answer x6, calculation

Source	Q	Type	Marks
9618/21 N25	7	short answer	10
9618/22 N25	7	short answer	6
9618/23 N25	7	short answer	9
9618/23 J25	6	short answer	9
9618/21 N24	7	short answer	7
9618/22 N24	7	short answer	10
9618/23 N24	7	calculation	9

12.3 Program Testing and Maintenance

6 questions, 48 marks • short answer x4, long answer, calculation

Source	Q	Type	Marks
9618/21 J25	6	short answer	12
9618/22 J25	2	short answer	8
9618/22 N24	1	short answer	9
9618/22 N24	5	long answer	7
9618/21 J24	5	short answer	6
9618/22 J24	5	calculation	6

13.1 User-defined data types

9 questions, 82 marks • short answer x8, calculation

Source	Q	Type	Marks
9618/31 N25	1	short answer	6
9618/33 N25	1	short answer	8
9618/41 N25	2	short answer	30
9618/31 J25	1	short answer	6
9618/32 J25	1	short answer	6
9618/33 J25	1	short answer	6
9618/31 N24	9	short answer	6
9618/32 N24	3	short answer	7
9618/33 N24	6	calculation	7

13.2 File organisation and access

6 questions, 48 marks • short answer $\times 4$, calculation $\times 2$

Source	Q	Type	Marks
9618/41 N25	3	short answer	25
9618/31 J25	12	short answer	5
9618/32 J25	13	short answer	5
9618/33 J25	11	short answer	5
9618/32 N24	2	calculation	3
9618/33 N24	5	calculation	5

13.3 Floating-point numbers, representation and manipulation

5 questions, 30 marks • calculation $\times 5$

Source	Q	Type	Marks
9618/31 N25	2	calculation	6
9618/31 J25	2	calculation	6
9618/32 J25	2	calculation	6
9618/31 N24	1	calculation	6
9618/32 N24	4	calculation	6

14.1 Protocols

7 questions, 51 marks • long answer $\times 4$, short answer $\times 2$, calculation

Source	Q	Type	Marks
9618/31 N25	3	short answer	10
9618/32 N25	3	short answer	6
9618/33 N25	4	long answer	6
9618/31 J25	3	long answer	9
9618/33 J25	4	long answer	9
9618/31 N24	4	long answer	4
9618/32 N24	5	calculation	7

14.2 Circuit switching, packet switching

6 questions, 30 marks • short answer $\times 2$, long answer $\times 2$, calculation $\times 2$

Source	Q	Type	Marks
9618/32 N25	4	short answer	4
9618/33 N25	3	long answer	4
9618/32 J25	4	short answer	4
9618/31 N24	3	long answer	5
9618/32 N24	1	calculation	7
9618/33 N24	3	calculation	6

15.1 Processors, Parallel Processing and Virtual Machines

6 questions, 31 marks • short answer x3, long answer x2, calculation

Source	Q	Type	Marks
9618/31 N24	2	short answer	4
9618/32 N24	8	calculation	4
9618/31 J24	11	long answer	8
9618/32 J24	9	short answer	7
9618/31 N23	5	short answer	4
9618/32 N23	10	long answer	4

15.2 Boolean Algebra and Logic Circuits

4 questions, 36 marks • short answer x2, calculation x2

Source	Q	Type	Marks
9618/32 N25	6	short answer	9
9618/33 N25	6	short answer	8
9618/32 N24	6	calculation	9
9618/33 N24	7	calculation	10

16.1 Purposes of an Operating System (OS)

5 questions, 31 marks • short answer x3, calculation x2

Source	Q	Type	Marks
9618/31 N25	4	short answer	6
9618/32 J25	5	short answer	7
9618/33 J25	6	short answer	6
9618/32 N24	9	calculation	5
9618/33 N24	8	calculation	7

16.2 Translation Software

8 questions, 52 marks • short answer x4, long answer x3, calculation

Source	Q	Type	Marks
9618/31 N25	8	short answer	8
9618/32 N25	8	short answer	8
9618/31 J25	6	long answer	4
9618/31 J25	7	short answer	6
9618/32 J25	8	long answer	4
9618/33 J25	8	long answer	4
9618/31 N24	10	short answer	9
9618/32 N24	7	calculation	9

17.1 Encryption, Encryption Protocols and Digital Certificates

6 questions, 32 marks • short answer x3, long answer x3

Source	Q	Type	Marks
9618/32 N25	7	short answer	5
9618/33 N25	9	long answer	4
9618/11 J25	7	long answer	11
9618/31 J25	9	short answer	4
9618/32 J25	10	short answer	4
9618/33 J25	7	long answer	4

18.1 Artificial Intelligence (AI)

6 questions, 40 marks • short answer x4, long answer x2

Source	Q	Type	Marks
9618/31 N25	7	short answer	6
9618/32 N25	9	short answer	6
9618/12 J25	3	long answer	12
9618/32 J25	6	short answer	6
9618/33 J25	10	short answer	6
9618/11 N24	6	long answer	4

19.1 Algorithms

5 questions, 76 marks • calculation x3, short answer, long answer

Source	Q	Type	Marks
9618/21 J25	4	short answer	8
9618/32 N24	11	calculation	12
9618/33 N24	11	calculation	12
9618/41 N24	1	long answer	22
9618/43 N24	1	calculation	22

19.2 Recursion

3 questions, 27 marks • long answer x2, short answer

Source	Q	Type	Marks
9618/33 N25	11	long answer	3
9618/43 N25	3	long answer	20
9618/33 J25	13	short answer	4

20.1 Programming Paradigms

5 questions, 71 marks • short answer x3, calculation x2

Source	Q	Type	Marks
9618/33 J25	5	short answer	4
9618/42 J25	3	short answer	26
9618/43 J25	3	short answer	29
9618/32 N24	10	calculation	6
9618/33 N24	9	calculation	6

20.2 File Processing and Exception Handling

5 questions, 54 marks • short answer x3, long answer, calculation

Source	Q	Type	Marks
9618/31 N25	10	short answer	3
9618/32 N25	10	short answer	4
9618/33 N25	12	long answer	5
9618/41 J25	2	short answer	25
9618/42 N24	3	calculation	17