



Week Commencing	Brief description of content that needs to be revised and specific tasks.	Supporting resources
W/C 14 th September	1.1 Systems architecture + 1.5 Systems software. Revise: CPU purpose; ALU, CU, cache and registers (PC, MAR, MDR, ACC); fetch-execute cycle; clock speed/cache/cores; embedded systems; OS functions; utility software. Tasks: From memory, draw/annotate the fetch-execute cycle and make a register-purpose grid. Complete 10-15 marks of CPU/OS/utility questions, then correct all errors.	CSNewbs - Systems Architecture / Systems Software Seneca - OCR J277 1.1 & 1.5
W/C 21 st September	1.2 Memory & storage - memory, devices and units. Revise: RAM, ROM, cache and virtual memory; why secondary storage is needed; optical, magnetic and solid-state storage; capacity, speed, portability, durability, reliability and cost; bit to petabyte. Tasks: Create a RAM/ROM/virtual-memory comparison. Do 10 unit-conversion/capacity questions and two storage-device recommendation questions using the scenario in each answer.	CSNewbs - Memory, Storage & Units Seneca - OCR J277 1.2 Memory & Storage
W/C 28 th September	1.2 Data representation - numbers, text, images, sound & compression. Revise: Denary/binary/hex conversions; binary addition and overflow; binary shifts; ASCII/Unicode; pixels, resolution, colour depth and metadata; sampling, sample rate, bit depth and duration; lossy/lossless compression. Tasks: Complete 5 number conversions each day. Practise binary addition/shifts plus one image and one sound file-size calculation. Explain how changing quality settings affects file size.	CSNewbs - Data Representation topics Seneca - OCR J277 1.2 Representation
W/C 5 th October	1.3 Networks - types, topologies, hardware, Internet & cloud. Revise: LAN/WAN; network performance (bandwidth/users); client-server vs peer-to-peer; NIC, switch, router, WAP and transmission media; Internet, DNS, hosting, cloud, servers/clients; star vs mesh; wired vs wireless. Tasks: Draw star and mesh networks and compare them. Explain the role of each network device. Write one network-performance answer and one cloud advantages/drawbacks answer in context.	CSNewbs - Networks Seneca - OCR J277 1.3 Networks
W/C 12 th October	1.3 Networks - addressing/protocols + 1.4 Network security. Revise: Ethernet, Wi-Fi, Bluetooth; encryption; IPv4/IPv6 and MAC addresses; standards; TCP/IP, HTTP/HTTPS, FTP, POP, IMAP, SMTP; protocol layers. Threats: malware, phishing/social engineering, brute force, DoS, interception/theft, SQL injection; prevention methods. Tasks: Make protocol-purpose flashcards. Check valid/invalid IPv4 examples and rehearse DNS lookup steps. Match each security threat to suitable prevention and explain how the prevention reduces the risk.	CSNewbs - Protocols & Network Security Seneca - OCR J277 1.3 & 1.4
W/C 19 th October	1.6 Ethical, legal, cultural, environmental & privacy impacts. Revise: Impacts of digital technology; Data Protection Act 2018; Computer Misuse Act 1990; Copyright, Designs and Patents Act 1988; software licences; open-source vs proprietary software. Tasks: Create a one-page legislation/licensing summary. Plan and write one timed 8-mark "discuss" response: balanced benefits/drawbacks, developed points, clear application to the scenario and a justified conclusion.	CSNewbs - Ethical, Legal & Environmental Issues Seneca - OCR J277 1.6 Impacts
W/C 26 th October	Final Paper 1 rehearsal - mixed retrieval and exam technique. Revise: Interleave all J277/01 topics. Focus first on errors from previous practice, then key facts, calculations, scenario questions and extended responses. Remember: 80 marks, 90 minutes, no calculator. Tasks: Sit the OCR 2024 J277/01 paper in 90 minutes. Mark it strictly, create an error log, then re-answer every lost-mark question without notes. Use 2023 questions only for remaining weak topics.	OCR 2024 J277/01 question paper OCR 2024 mark scheme OCR 2023 J277/01 question paper OCR 2023 mark scheme