



UGANDA INSTITUTE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
PROGRESSIVE ASSESSMENT EXAMINATIONS
ACADEMIC YEAR 2025/2026

PROGRAMME: DIPLOMA IN COMPUTER SCIENCE (DCS)

YEAR OF STUDY: YEAR ONE SEMESTER TWO

COURSE: COMPUTER WORKSHOP PRACTICE

COURSE CODE : ICT121

DATE: THURSDAY 25TH, JUNE 2026

TIME: 9:00 AM – 12:00 PM

DURATION: 3 HOURS

VENUE: LAB 1, LAB 2, SEMINAR ROOM, SMART CLASS ROOM, DH

INSTRUCTIONS

1. Answer ALL questions in Section A.
2. Answer ANY THREE (3) questions from Section B.
3. Begin each question on a new page.
4. Illustrate your answers with relevant examples where applicable.
5. Marks for each question are indicated in brackets.

SECTION A (COMPULSORY)

PART I

1. Which tool is used to securely attach RJ-45 connectors to Ethernet cables?
A. Multi-meter B. Crimping tool C. Screw driver D. cable tester
2. To test the output voltage of a computer power supply unit (PSU), which setting on a multi-meter is used
A. Resistance (Ohms) B. DC volts C. AC volts D. Amperes current
3. Which tool helps diagnose issues by checking continuity in wires, fuses, or motherboard traces.
A. Soldering iron B. Multi-meter C. Crimping tool D. Anti-static wrist
4. What should you use to prevent damage from static electricity while working on sensitive electronic parts like RAM or CPU
A. Rubber gloves B. Anti-static mat C. Rubber wire cutters D. screw driver
5. Which of the following is not a typical voltage output of a computer PSU?
A. +3.3V B. +5V C. +12V D. 18 V
6. What does the third band on a resistor represent in resistor colour coding
A. Tolerance B. Multiplier C. Third digit D. Temperature
7. What tolerance does a gold band indicate?
A. $\pm 10\%$ B. $\pm 5\%$ C. $\pm 20\%$ D. 5% E. 10%
8. Which component captures the image in a scanner?
A. Computer Personal Unit (CPU) B. Sensor (CCD) C. RAM D. Fan
9. Which part of a laser printer permanently bonds toner to paper?
A. Drum B. Cartridge C. Fuser D. Roller
10. A computer scanner captures images using
A. Magnetic waves B. Light waves C. Sound waves D. Heat waves
11. Which colour mode do computer scanners use
A. CMYK B. RGB C. HDMI D. ASCII
12. Which material is NOT considered e-waste
A. Mobile phone B. TV sets C. Laptop D. Computer paper box
13. Which harmful material is commonly found in e-waste?
A. Oxygen B. Lead C. Water D. Tin
14. Why is e-waste dangerous
A. It smells bad B. It contains toxic substances C. It is heavy D. it contains dangerous bacteria.
15. Effects of improper disposal of e-waste:
A. Soil pollution B. Water pollution C. Air pollution D. All the above
16. If the computer is not powering up, what should be checked first
A. Power diodes B. Power cable and socket C. Screen resolution D. Processor
17. What should you do before working on a computer
A. Switch ON the computer B. switch off the computer C. Install software D. Remove monitor.
18. Which of the following is a safety rule in a computer workshop

- A. Eating in the workshop B. Working with wet hands C. Wearing protective gear
D. Working with baggy clothes
19. What should be done with damaged computer parts in computer workshop
A. Burn them B. throw them anywhere C. recycle D. Keep them in the store.
20. Which of the following is preventive maintenance
A. Cleaning dust from components B. Replacing a broken screen C. Formatting a disk D. Installing software.

SECTION A-PART II (Compulsory)

21. Give two examples of an electrostatic discharge (ESD) protection tools. (2 marks)
22. Why is proper ventilation important in a computer workshop (2 marks)
23. State one reason for having fire extinguishers in a computer workshop. (1 mark)
24. State the main function of a power supply unit (PSU) (1 mark)
25. List two functions of antivirus software in a computer system (2 marks)
26. Explain two techniques used to detect viruses in computers (4 marks)
27. Why are twisted wires used in network cables (2 marks)
28. Name the types of colour cartridges used in a colour printer (4 marks)
29. State two types of screw drivers common in a computer workshop (2 marks)

SECTION B

Question one

A customer brings a desktop computer to your workshop and reports that his computer does not switch on when the power button is pressed. The power cable is connected, and the wall power socket is working well.

- i. Identify any two possible causes of power supply-related faults (4 marks)
- ii. Explain how you would test whether the power supply unit (PSU) is functioning or not functioning well (6 marks)
- iii. Explain two methods that can be used to determine the resistor's value (4 marks)
- iv. State any other three components you should inspect before replacing the PSU (6 marks)

Question two

During a practical session in a computer maintenance workshop, a technician notices smoke coming from a desktop computer's power supply unit (PSU). A few seconds later, a small fire starts inside the system unit. Several students are working nearby, and there are many computers connected to the mains power supply.

- i. Describe the first action the technician should take upon noticing the fire (2 marks)
- ii. Identify the type of fire extinguishers which are most suitable for extinguishing the fire (4 marks)
- iii. List four safety precautions to observe while extinguishing the fire. (4 marks)
- iv. Identify possible causes of the fire in the computer maintenance workshop. (2 marks)

- v. List four types of fire extinguishers and the classes of fire they are designed to extinguish. (8 marks)

Question three

A small computer maintenance workshop in a suburb area of Kampala collects old computers, laptops, and printers from customers and occasionally sells some parts to scrap dealers.

- i. Identify two environmental risks for the workshop owner (4 marks)
- ii. Suggest a responsible e-waste management plan for this small business (8 marks)
- iii. Identify the major health and environmental impacts of these practices (4 marks)
- iv. Explain the challenges the workshop owner is likely to face in implementing environmental protection. (4 marks)

Question four

In one of the labs at UICT, an antivirus program was installed on all computers. After a few weeks, the system fails to identify new threats introduced by the students through their flash disks to the computers.

- a) Identify the virus detection technique being used. (2 marks)
- b) Explain why the system fails to detect new threats. (6 marks)
- c) Suggest a more effective technique to handle new viruses (6 marks)
- d) Describe any three functions of antivirus software (6 marks)

Question five

Mr. Okello brings his Lenovo laptop to your computer maintenance workshop. He complains that his original power adapter is faulty — it no longer charges the laptop, gets excessively hot, and makes a humming sound. He requests you, as a trained technician, to help him get a suitable replacement power adapter.

- i. As a technician, what important technical specifications would you check on the laptop and the old adapter before recommending a replacement? List at least four key specifications. (4 marks)
- ii. Explain why it is risky to use a power adapter that does not match the laptop's voltage and amperage requirements. (4 marks)
- iii. Describe why computer system commonly use non-linear power adaptor. (4 marks)
- iv. Describe the step-by-step procedure you would follow to select and provide the correct power adapter for Mr. Okello's laptop. (4 marks)
- v. What additional advice would you give Mr. Okello regarding the care and maintenance of the new power adapter to prevent future failures (4 marks)

END