



**INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY  
HIGHER LEVEL AND STANDARD LEVEL  
PAPER 2**

SPECIMEN PAPER

1 hour 15 minutes

**ARTICLE**

---

INSTRUCTIONS TO CANDIDATES

- Do not open this booklet until instructed to do so.
- This booklet contains the article required for information technology in a global society higher level and standard level paper 2.

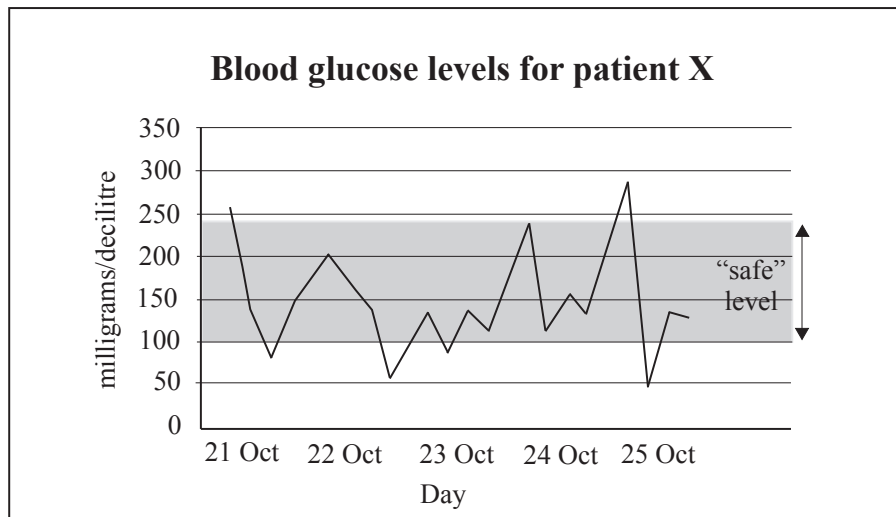
**Topic: Health**

5 Patients who have diabetes (diabetics) must measure their blood sugar (blood glucose) a number of times a day to ensure that it stays within safe levels. If their blood glucose level is too high, they may become unconscious and fall into a coma. Diabetics are expected to record their results daily so that they can monitor their own blood glucose levels. These results are accessible to patients and also reviewed by their doctors at the local hospital on a monthly basis.

Diabetics have been involved in tests with new IT technologies that experts hope will lead to an increase in the use of online health records.

10 Previously a diabetic would be required to record blood glucose levels in a notebook. Now a blood glucose meter can be used to measure levels of blood glucose and this information can be uploaded to a computer.

This development has taken place in partnership with the company *LivingWithDiabetes* which has developed a website that makes it possible for patients to upload their blood glucose levels so that medical staff can view this information as shown in the chart below.



The process works as follows:

- 15 1. Blood is taken and glucose levels are measured by the meter.
- 2. The results are uploaded and stored on the patient's computer.
- 3. Results are sent to the *LivingWithDiabetes* website.
- 4. Results are viewed by medical staff.

20 Doctors believe that this new online blood glucose recording system will be significantly better than the previous manual system because patients play a key role in managing their own condition. Previously doctors relied on patients providing information about their blood glucose levels to the medical staff and the information would then be passed on to the doctors. Now doctors can immediately access this information online.

25 This online blood glucose recording system would only require one nurse to manage 200 diabetic patients. It would allow nurses to spend more time with patients when they are first diagnosed, teaching them how to manage their condition.

Doctors believe this is an ideal solution for themselves, other medical staff and diabetic patients.

---