

Pearson Edexcel GCE

Applied Information and Communication Technology Unit 9: Communications and Networks

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Scenario

Paper Reference
6959/01

The scenario should be distributed to candidates at least three working weeks before the examination.

Note: There are **no** practice files for this examination.

This scenario should be used for the purposes of preparing candidates for the examination. This copy **must not** be taken into the examination. The information contained in the scenario will be included in the examination paper.

Further details are in the Instructions of the Conduct of Examinations (ICE), available from the Edexcel website for this qualification.

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Scenario

The Varma Loko ICT Skills Project

The government of the tropical island of Varma Loko is trying to improve the island's economic growth. At present there are thriving tourist and agricultural sectors. The high-tech sector is underdeveloped.

The government commissioned research to identify ways of developing a high-tech sector without having to rely on foreign investment. It has concluded that improving ICT education is an essential first step in the process.

The government has launched 'The Varma Loko ICT Skills Project' to look for cost-effective ways of improving ICT education throughout Varma Loko. The project manager, Viro De Ordoni, has decided to conduct a number of trials before making any major commitment.

One of these trials will look at education in primary schools in the interior of Varma Loko. Away from the coast much of Varma Loko is mountainous. There are several large towns with good communication links, but a lot of the population lives in rural villages with little infrastructure. Many of the villages have primary schools. There are no secondary schools in the villages.

Viro has chosen the village of Kampara Vilago for the trial. Kampara Vilago was selected for several reasons.

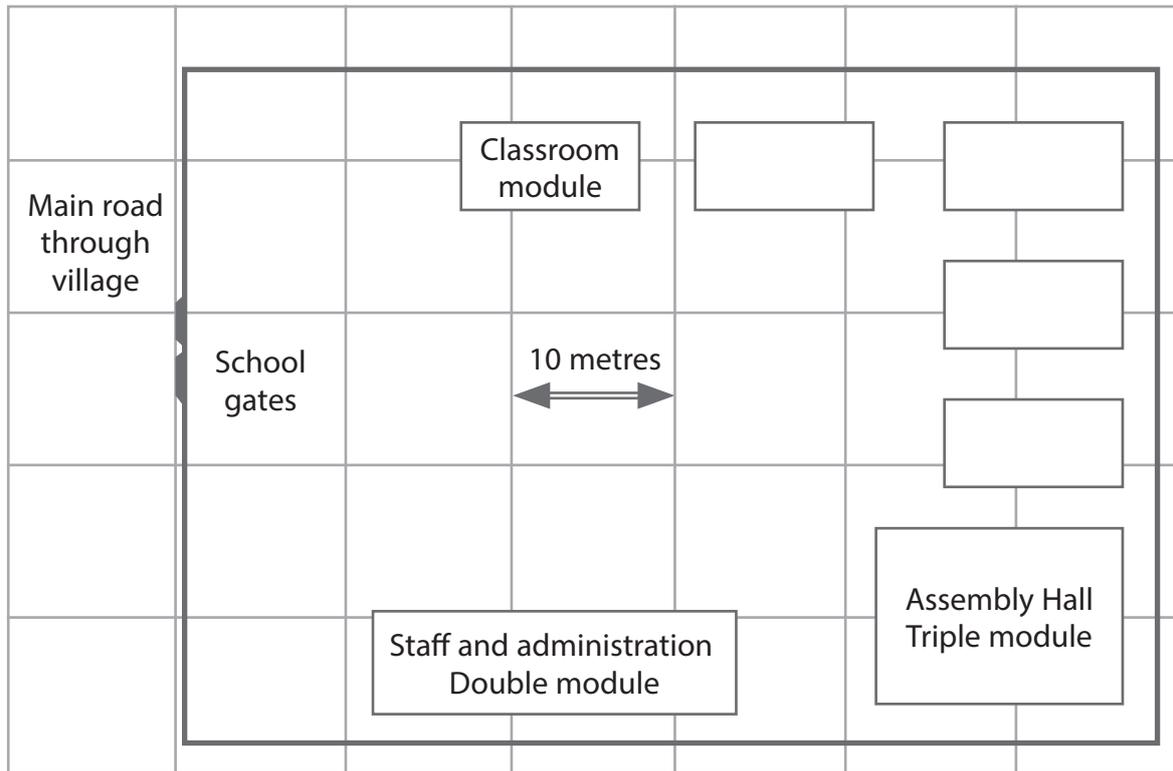
- 1 It has a primary school.
- 2 It has the average population size for rural villages in Varma Loko.
- 3 It has mains electricity.
- 4 It has shops, light industrial services and a telephone exchange. These serve several smaller villages.
- 5 It has a good road, which links the village to the town of Sekvanta some 20 km away.
- 6 It is only 35 km from the capital of Varma Loko, Precipaurbo, where Viro is based.

The Kampara Vilago trial will look at:

- the hardware needed to provide ICT facilities for primary level education
- the infrastructure needed to connect a rural primary school with the outside world
- software that is suitable for running the hardware
- software that is suitable for teaching ICT skills and supporting general education at primary level.

The Kampara Vilago Primary School is run by the Education Ministry. The school has six teachers, including the head teacher, plus a non-teaching school administrator. It can house up to 100 pupils, split into five year groups. The youngest group starts school when they reach the age of five. The oldest group are 9 to 10-year-olds. Class sizes vary from year to year but are generally in the range of 15 to 25 pupils for each of the five year groups.

The school is built from standard building modules. The layout is shown in the diagram.



All primary schools in Varma Loko are built in a similar fashion. The position and internal layout of each building may be altered to suit local conditions. More modules are added if a school's intake outgrows its accommodation. The largest village primary schools have up to 300 pupils.

The teachers and administrator use three PCs and a monochrome laser printer, supplied by the Education Ministry. The staff and administration module has internet access via ADSL. Viro wants to produce an 'everything-in-one-box' solution that could be deployed to any primary school. This will be trialled at Kampara Vilago. Existing ICT equipment will be retained but the 'everything-in-one-box' solution must include everything that is needed. You must not assume that additional equipment is already present.

Viro has hired you as an adviser for the Kampara Vilago trial. The overall project has a large budget but Viro has emphasised the 'cost-effective' part of the project brief.