NAMIBIA SENIOR SECONDARY CERTIFICATE

FIRST LANGUAGE ENGLISH ORDINARY LEVEL 4102/1

PAPER 1 Reading and Directed Writing 2 hours 30 minutes

Marks 70 2013

Additional Materials: Answer Book

INSTRUCTIONS AND INFORMATION TO CANDIDATES

• Write your answers on the separate answer book provided.
• Write your Centre Number, Candidate Number and Name in the spaces on the answer book.
• Write with blue or black pen.
• Do not use correction fluid.

• Answer all questions.
• Dictionaries are not permitted.

• The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of 6 printed pages and 2 blank pages.

Republic of Namibia
MINISTRY OF EDUCATION

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Passage A

Small miracles amid the carnage

Tales of survival in devastated Japan, following the earthquake and tsunami of March 2011

Despite a rapidly rising death toll and worsening nuclear emergencies, Japan’s stoic population has been delighted by a precious few survival stories. More than 20,000 people may have died in Japan’s devastating earthquake and tsunami and those who escaped alive are facing a humanitarian crisis, one that Prime Minister Naoto Kan has called the nation’s biggest disaster since World War II. While 100,000 government troops begin relief efforts, survivors have begun to tell their harrowing tales.

Hiromitsu Shinkawa, 60, saw the tsunami approaching and ran home to gather his belongings. Before he knew it, his home was destroyed and he was swept out to sea on what used to be the roof of his house. “No helicopters or boats that came nearby noticed me. I thought that day was going to be the last day of my life,” Shinkawa later said. Finally, after two days at sea, he was spotted by a rescue ship an amazing 10 miles from land, waving a red flag he had made himself. Upon being hauled onto the ship, he gratefully drank a glass of water and then broke into tears. Shinkawa’s wife is still missing.

As soon as the quake hit, Harumi Watanabe closed her shop in Shintona, a now-ravaged coastal town, and drove straight to the home of her elderly parents. “But there wasn’t time to save them,” Watanabe said. “They were too old and too weak to walk, so I couldn’t get them to the car in time.” Watanabe was with her parents in their living room when the tsunami’s waves hit. She held their hands, but the waves tore them apart. The last thing she heard was them yelling, “I can’t breathe.” Watanabe herself barely survived. “I stood on the furniture, but the water came up to my neck. There was only a narrow band of air below the ceiling. I thought I would die.”

In the coastal town of Minamisanriku, half of the population was still missing three days later: 9,500 people. Choushin Takahaski was working at a local government office when the tsunami warning sounded and 13-foot (4 metre) waves hit. “Most people ran away,” she recalled. “Some had to leave the elderly or disabled behind on the second floor. I think a lot of those left behind probably died.” Three days later, 42 people were pulled out of the rubble alive. But another of the town’s residents is still haunted: “I saw the bottom of the sea when the tidal wave withdrew and houses and people were being washed out... I couldn’t watch anymore.”
Natsuko Komuro was riding a horse in Miyagi Prefecture right before the devastation began; she had to abandon her beloved pet to escape. She jumped in her car and sped away but was soon caught up in a crush of traffic. “The traffic lights had stopped working and there was massive congestion, rows and rows of cars,” she told the BBC. On Sunday, she went back to her home to look for her horse, but it was in vain. “Words fail me,” she said, “because there is nothing here, of the things that are supposed to be here, everything is gone.” More than 200 bodies have been recovered in Komuro’s area.

Despite the horror hidden beneath the mud and waves, people all over Japan’s north-east coast are finding minor miracles. The industrial lands around Sendai port have been obliterated and a blazing fire from an oil storage tank lights up the sky. Trucks have been crushed and pile up on each other like aluminium cans, factories have been flattened and their contents spill all over the surrounding lands. Outside one of those factories belonging to the famous Kirin beer company, residents have worked out how to solve their dehydration challenge. Littered across the mud and debris, for as far as the eye can see, are thousands of kegs and what seems like a million cans of slightly shaken, but perfectly chilled beer. People, who have been without water for days, are fossicking and filling plastic bags with the next best thing. “This is quite some luck,” says a Sendai lad, cracking open a Kirin wheat beer, as the sun sets behind him and a blazing fire from the oil refinery behind him begins to light up the sky.
Choose the best answer to the question from the choices provided. Write down only the question number and the letter of the answer of your choice.

1 (a) Why was Hiromitsu Shinkawa not rescued until two days after the tsunami?
   A All the airports and harbours were destroyed.
   B He only made a red flag after two days.
   C No helicopters or ships noticed him on his rooftop.
   D There was too much devastation to search for survivors. [1]

1 (ii) How many residents did the town of Minamisanriku have before the tsunami?
   A 9 500
   B 15 000
   C 19 000
   D 25 000 [1]

1 (iii) According to the passage, what was one of the problems that the Japanese people faced after the tsunami receded?
   A disease
   B lack of food
   C lack of water
   D traffic congestion [1]

(b) In the context of the passage, what do you think the word fossicking (last paragraph) means? [1]

(c) The word stoic was used in paragraph 1 to describe the Japanese people. What evidence is there that shows that the Japanese are not always stoic, but emotional? [3]

(d) Explain the irony of the situation described in the last paragraph of the passage. [3]

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Imagine that you are Japanese Prime Minister, Naoto Kan. You are trying to determine the extent of the devastation caused by the earthquake and the tsunami. You have summoned the town's mayor to your office, to ask him/her about their perceptions and plan of action.

Write the conversation that takes place between you (as Prime Minister) and the mayor mentioned in Passage A.

Pay attention to both the traumatic events and to the thoughts and emotions of any victims of the tsunami, as well as an action plan for recovery.

You should write between 1 to 1½ pages depending on the size of your handwriting. [20]
PART 2

Read the passage below and the instructions given.

Passage B

The following passage explains how it is possible to prepare and strengthen your building to withstand earthquakes

How to earthquake-proof your building

A research team led by Stanford University and the University of Illinois successfully tested a construction method that holds a building together through a magnitude-seven earthquake, and even pulls it back upright on its foundation when the quaking stops. The key is to embrace the shaking, by limiting the damage to a few flexible, replaceable areas within the building’s frame.

When a quake strikes, the new system dissipates energy through steel frames in the building’s core and exterior. These frames are free to rock up and down within fittings fixed at their bases. Steel tendons made from twisted steel cables run the length of each frame, keeping the frames from moving so much that the building could tear itself to pieces. When the quake stops, these tensile tendons pull the frames back down into the “shoes” or housings at their bases, returning the building to its plumb, upright position.

So where does all that energy go? At the base of each frame is a flexible steel “fuse” that takes the brunt of the force, keeping the frame and constituent tendons from shoudering the entire load. The fuses are easily replaceable when they blow — just like an electrical fuse — so after a quake, the building can be refitted with fresh fuses for its next bout with Earth’s occasional tectonic fits.

Furthermore, researchers at the Institute for Solid Construction and Building Materials Technology at the Karlsruhe Institute of Technology (KIT) in Germany have developed “intelligent composite seismic wallpaper”. The Institute’s Solid Construction Department designed the wallpaper to reinforce the walls of buildings in earthquake regions. The new fabric consists of textile material with four different directions of fibres that are embedded in mortar. It manages to stabilise buildings damaged by earthquakes and can make them fit for use again. However, the textile-mortar reinforcement system can also serve to protect intact buildings as a preventive measure. It is also suitable to fill in and bridge cracks in buildings caused by subsidence, or sinking, of land. The project focuses on intelligent composite “seismic wallpaper” for the reinforcement, strengthening, monitoring and management of civil infrastructure vulnerable to earthquakes.

The KIT researchers are now testing the reinforcement system on a badly damaged building in Pavia/Italy. The architecture of the house and its material are based on buildings typical of the Abruzzi region, hit by a powerful
earthquake in April 2009. After the L'Aquila earthquake, a research team redoubled their efforts to design protection solutions for buildings exposed to natural disasters. In a large-scale experiment, the house is being reinforced with the seismic wallpaper and will then be placed on a vibrating table to simulate an earthquake. The seismic wallpaper is the work of a group of partners in science and industry, working to develop intelligent textiles for construction as an earthquake protection measure.

The “seismic” wallpaper is embedded into a masonry wall, giving “horizontal reinforcement” to the earth’s sharp lateral movements during an earthquake. “It’s particularly beneficial where there are many stone and brick buildings and a lot of seismic activity,” researcher Moritz Urban told Reuters, adding that the material allows for masonry to break slightly, upon which it will hold the wall in place. “Normally (walls) would crumble ... and perhaps the entire house would collapse,” Urban said. “At the least we’re able to keep a wall together: it lets a wall weaken, but it still stays intact.” The “smart” wallpaper is woven with an optical sensor that can perceive small vibrations which may be able to set off a warning before a major quake.

3 Read Passage B above and re-read Passage A.

Summarise the effects that tsunamis and earthquakes can have on cities, as well as ways to minimise these effects. You should note both physical damage as well as psychological damage.

Your summary should be between 1 to 1½ pages depending on the size of your handwriting.

Write your summary using the headings, ‘Passage A (Japan)’ and ‘Passage B (Italy).’

4 Imagine that you are a news reporter. You have travelled to both Japan and Italy, to examine first-hand the situations described in both Passage A and Passage B.

Upon your return to your home town, write an article for your newspaper, about the situation in Japan and in Italy, describing both the elements of tragedy as well as any hope that might be found in these situations.

You should base your work on both Passage A and Passage B, but you are free to include any of your own ideas in formulating your answer.

Write between 1 to 1½ pages depending upon the size of your handwriting.