HWA CHONG INSTITUTION
JC2 Preliminary Examination
Higher 1

CANDIDATE NAME		**CT GROUP**	
CENTRE NUMBER		**INDEX NUMBER**	

GEOGRAPHY

8813/01

Paper 1

10 September 2018

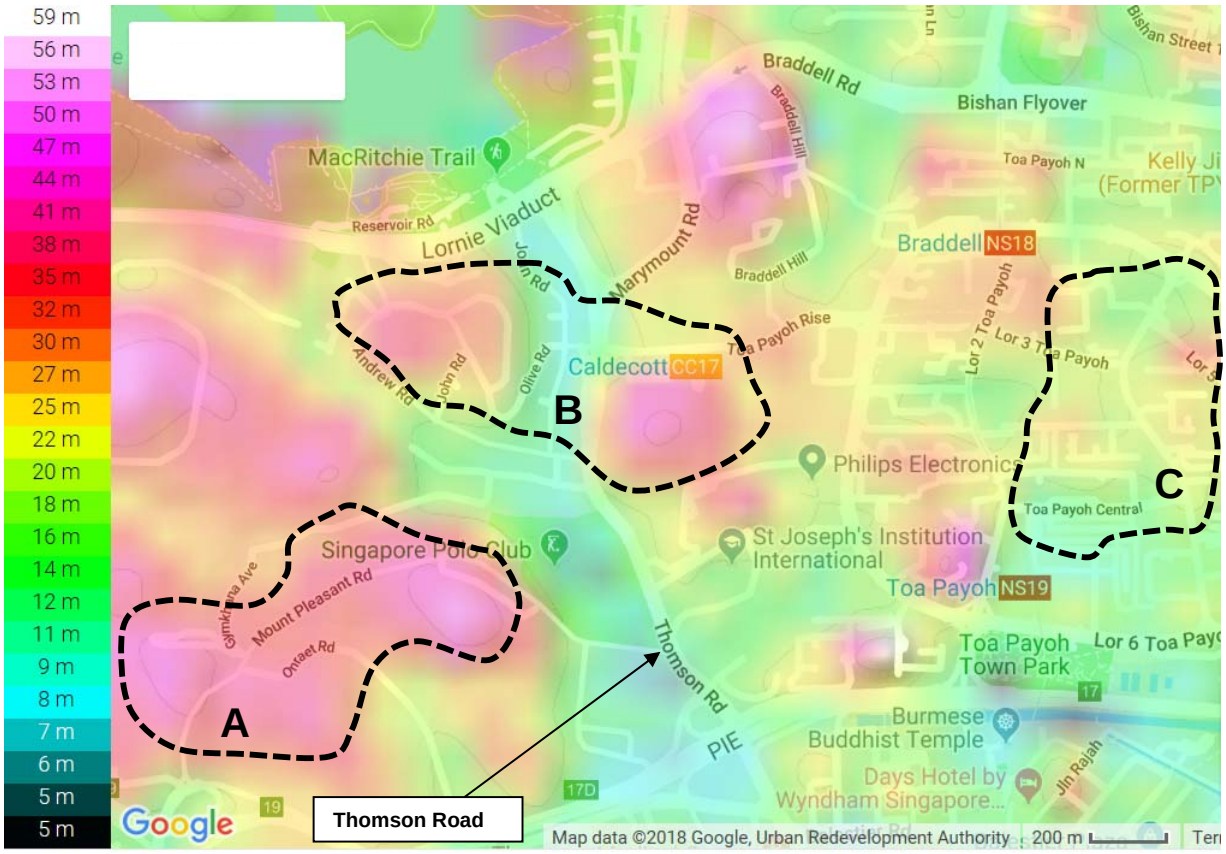
INSERT

3 hours

READ THESE INSTRUCTIONS FIRST

This insert contains all the Resources referred to in the questions.

Resource 1 for Question 1
Relief map of Thomson Road and its surrounding area

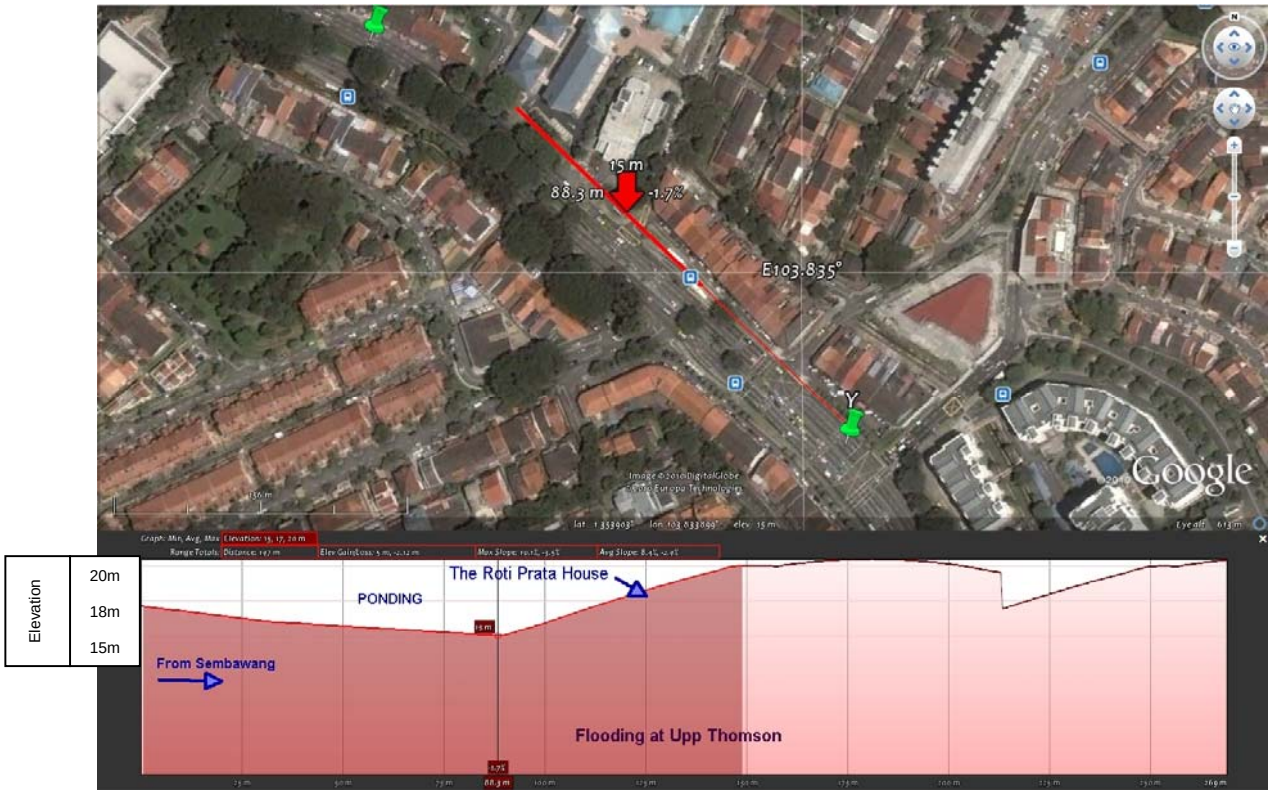


Resource 2 for Question 1
Recording sheet for slope sections along Thomson road area B

Slope section	Land use	Vegetation cover	Average Slope angle	Infiltration rate
B1	*No built up area*	*Grassy with trees*	2.5°	Time from start (min) / Infiltration rate* mm/hr: 0 / 25.5; 40 / 22.3; 60 / 18.0
B2	*Walking path on one part of the slope*	*Grassy with trees*	6.4°	Time from start (min) / Infiltration rate* mm/hr: 0 / 17.8; 40 / 15.2; 60 / 12.0

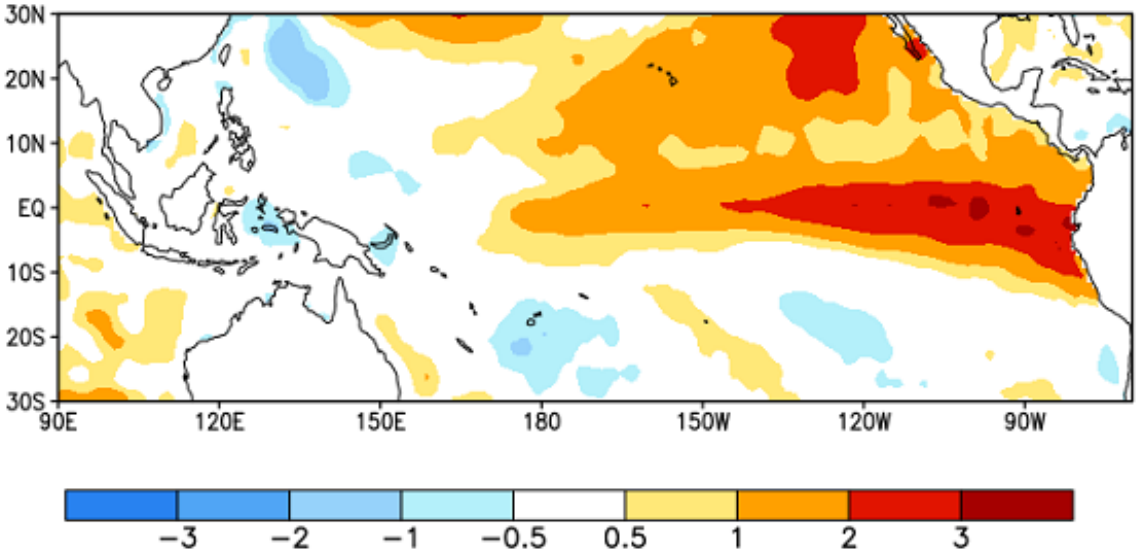
* Infiltration rate is measured by the depth (in mm) of the water layer that can enter the soil in one hour

Resource 3 for Question 1
Image from Google Earth showing the elevation down a section of Upper Thomson Road

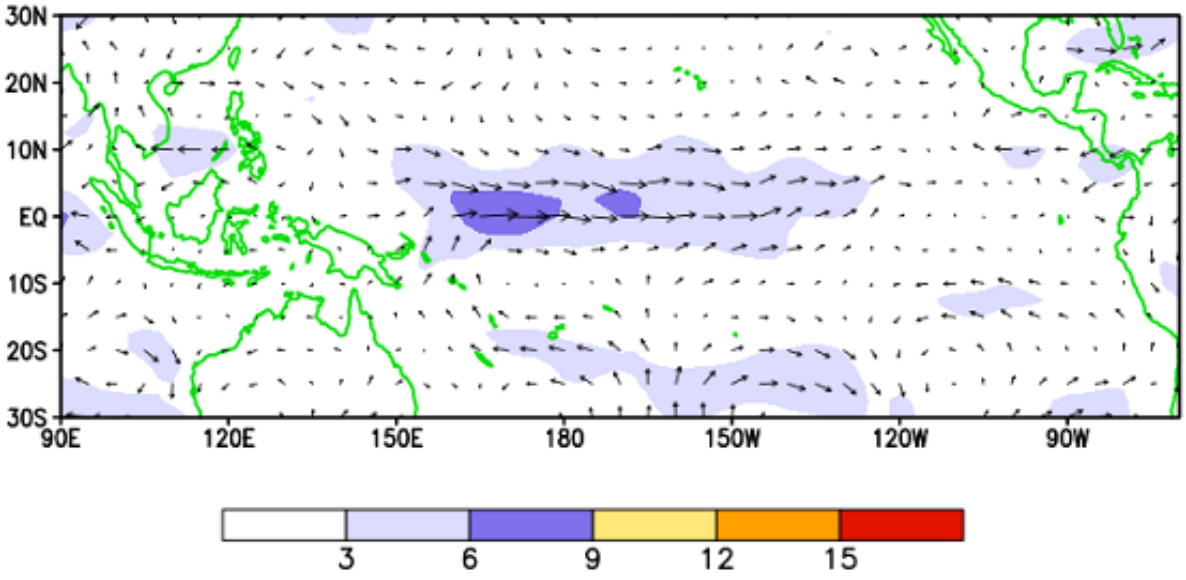


Resource 4 for Question 1
Image of land use along Lorong 3 Toa Payoh

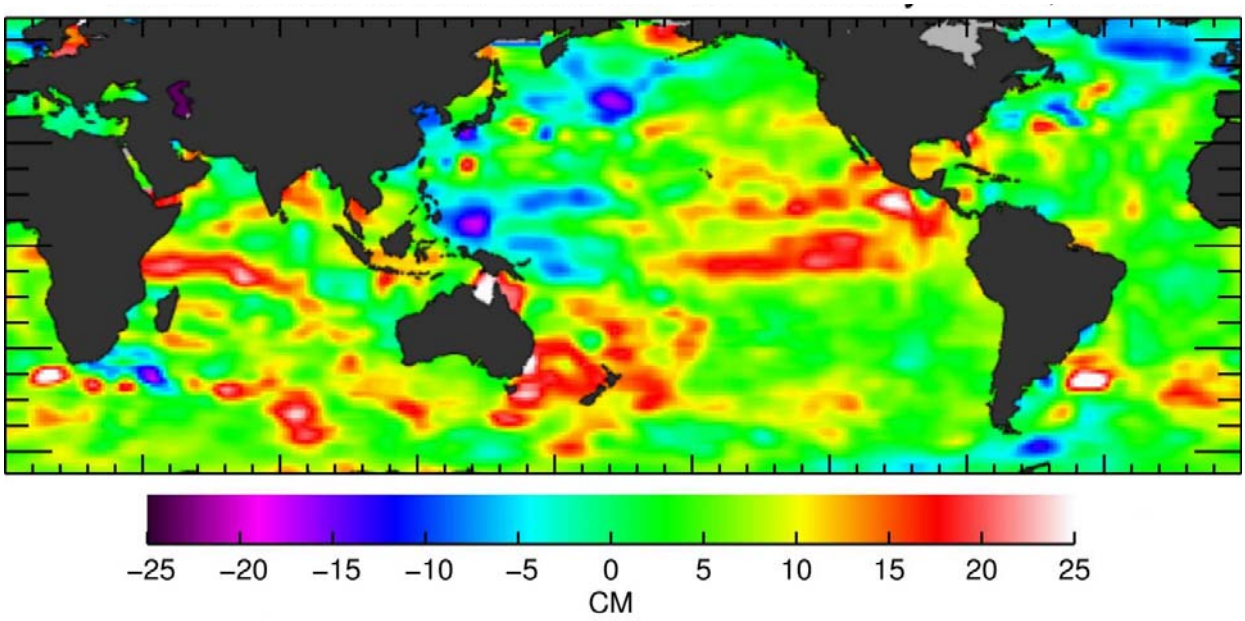
Resource 5 for Question 2
Average sea surface temperature anomalies (°C) between July-August 2015



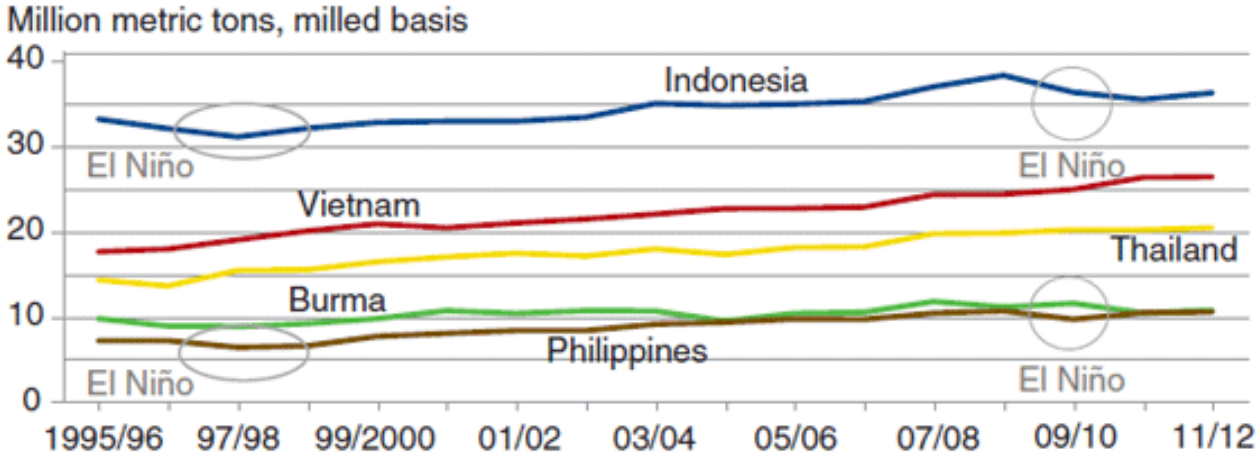
Resource 6 for Question 2
Wind speed anomalies (m/s) July to August 2015



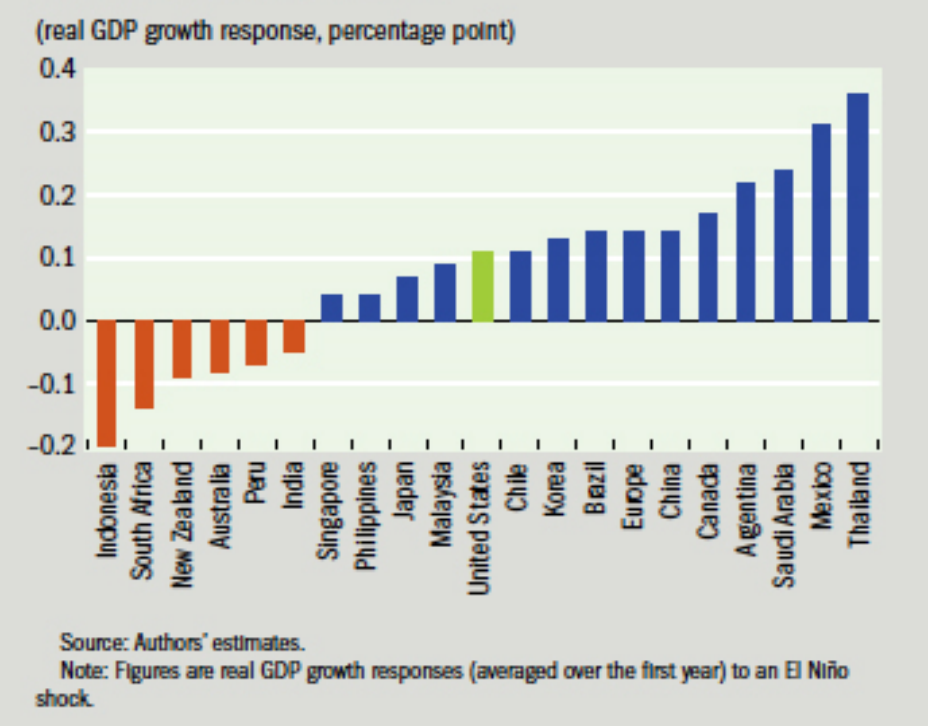
Resource 7 for Question 2
Sea level anomalies in February 2016



Resource 8 for Question 2
Rice production in Southeast Asia



Resource 9 for Question 2
The effects of an El Nino shock on real GDP



Source: Authors' estimates.
Note: Figures are real GDP growth responses (averaged over the first year) to an El Niño shock.

Acknowledgements:

Question 1 Resource 1 @ http://en-sg.topographic-map.com/places/Singapore-6698414/
Question 1 Resource 2 @ own data
Question 1 Resource 3 @ https://thetwophilo.files.wordpress.com/2010/07/5upp-thomson-profile.jpg
Question 1 Resource 4 @ https://www.google.com.sg/
Question 2 Resource 5 @ https://www.climate.gov/
Question 2 Resource 6 @ https://www.climate.gov/
Question 2 Resource 7 @ https://phys.org/news/2016-03-jason-oceans-ongoing-el-nino.html
Question 2 Resource 8 @ http://www.thecropsite.com/articles/1458/el-nio-weather-events-affect-southeast-asias-rice-surplus/
Question 2 Resource 9 @ http://www.imf.org/