VICTORIA JUNIOR COLLEGE
JC 2 PRELIMINARY EXAMINATION 2019
HIGHER 1

H1 GEOGRAPHY **8813/01**

Paper 1 **3 hours**

READ THESE INSTRUCTIONS FIRST

Write your name and index number on the work you hand in.
Write in dark blue or black pen on both sides of the paper.
You may use an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid.

Answer **four** questions in total.
Section A
Answer Question 1.
Section B
Answer Question 2.
Section C
Answer **two** questions, each from a different theme.

You should make reference to appropriate examples studied in the field or the classroom, even where such examples are not specifically requested by the question. Diagrams and sketch map should be drawn whenever they serve to illustrate and answer.
You are reminded of the need for good English and clear presentation of your answers.

At the end of the examination fasten all your work securely together.
The number of marks is given in brackets [ ] at the end of each question or part question.

Section A

Theme 3: Geographical Investigation

1 A group of researchers wanted to identify high flood risk residential areas in Quang Tho, a village in Thua Thien Hue in central Vietnam.

The aim was to produce a flood risk map of the study area. To create the flood risk map, the researchers used both secondary and primary data.

The researchers developed an index to measure the vulnerability of households in the village. To develop the index, the researchers conducted several focus group discussions during village meetings to identify the factors influencing a household's vulnerability to floods. The researchers then measured the vulnerability of 600 households using the index.

The data collected from the field was then inputted into a computer and analysed using a Geographic Information System (GIS) software to produce the flood risk map.

At the end of the investigation, the flood risk map was shared with the locals at village meetings. It was also shared with flood management authorities.

Resource 1 shows the process of mapping flood risk carried out by the researchers. Resource 2 shows the index used by the researchers to measure the vulnerability of households in the village. Resource 3 shows the flood risk map of Quang Tho village produced by the researchers.

(a) Explain the usefulness of secondary data to the investigation.

[5]

(b) Explain the measures the researchers might have taken to ensure the accuracy of the data collected for the investigation.

[6]

(c) Explain the strengths of the data presentation technique shown in Resource 3.

[5]

(d) Explain how the data shown in Resource 3 might be useful for different groups of people.

[4]

(e) Suggest possible improvements that can be made to the investigation.

[5]

Section B

Theme 1: Climate Change

Climate and River Systems in India

2 Resource 4 shows the climographs of Mumbai and Hardwar in India. Resource 5 shows the map of India and surrounding areas near Hardwar. Resource 6 shows the change in inflow over time at Hardwar and Tehri Reservoir during a rainfall event.

(a) With reference to Resource 4A, identify the climate type of Mumbai and describe its temperature characteristics.

[3]

(b) With reference to Resource 4, compare the rainfall characteristics of Mumbai and Hardwar.

[4]

(c) With reference to Resource 5, explain the rainfall distribution of Mumbai as shown in Resource 4A.

[5]

(d) With reference to Resource 6, describe the 'actual inflow at Hardwar' throughout the rainfall event.

[5]

(e) With reference to all Resources, and your own knowledge, evaluate the extent to which dams can influence flow downstream.

[8]

Section C

Answer **two** questions from this section. **Either** Question 3 **or** Question 4 and **Either** Question 5 **or** Question 6.

Theme 1: Climate Change and Flooding

3 **(a)** Explain how channel processes may vary in the tropics.

[9]

(b) 'The changes to drainage basin systems by humans have contributed to increased flood risk today'.

To what extent do you agree with this statement?

[16]

4 **(a)** Explain why the El Nino may impact areas both within, and beyond the tropical Pacific.

[9]

(b) 'There is nothing we can do about climate change other than try our best to adapt to its impacts'.

Do you agree with this statement?

[16]

Theme 2: Urban Change

5 **(a)** Explain how sustainable urban development can be measured at different scales.

[9]

(b) To what extent is sustainable development difficult to achieve?

[16]

6 **(a)** Explain how urbanisation trends and urban population change vary between countries at different levels of development.

[9]

(b) Discuss the role of different stakeholders in meeting the needs of migrants in urban areas.

[16]

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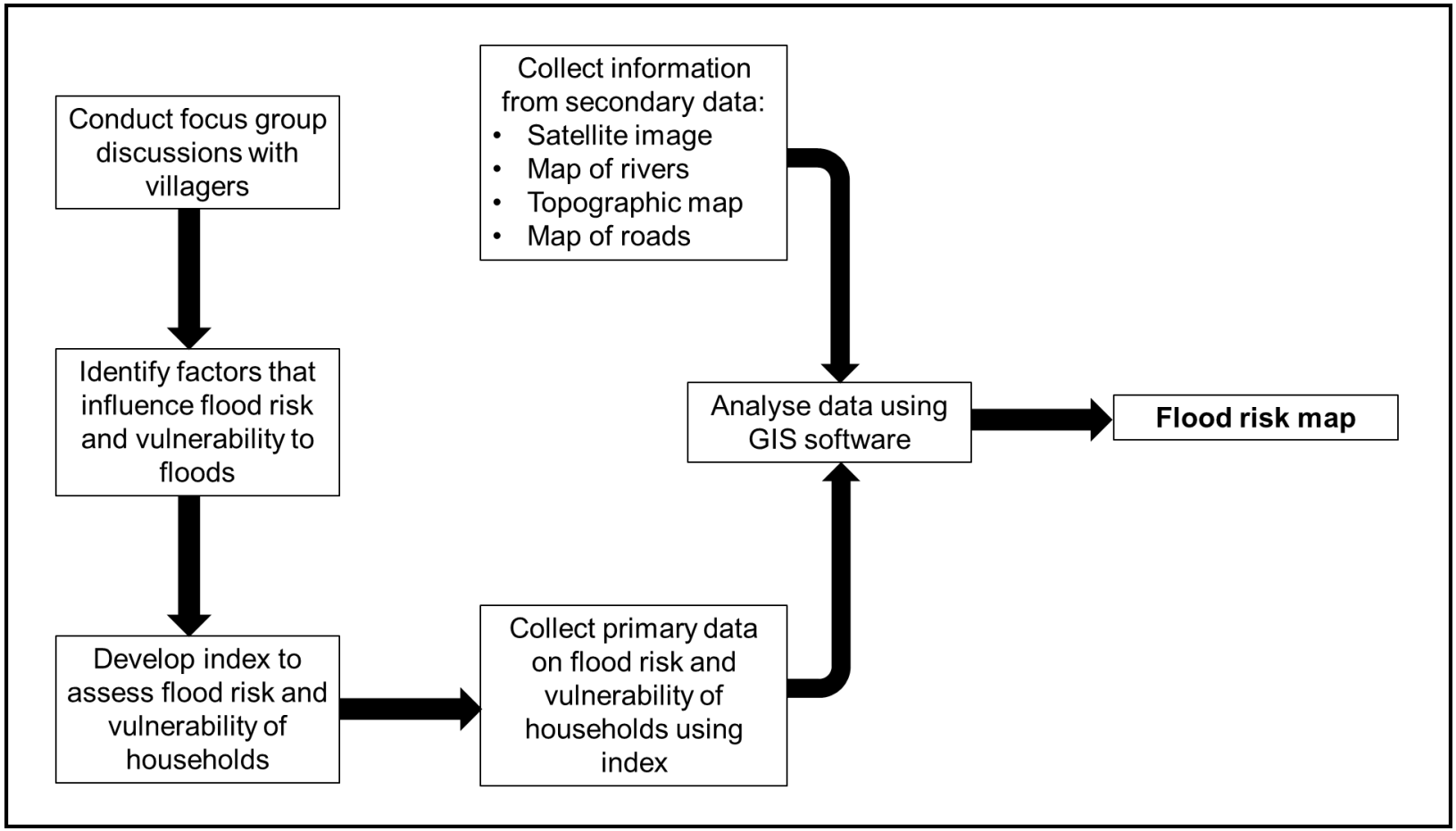
Paper 1 INSERT **3 hours**

READ THESE INSTRUCTIONS FIRST.

The Insert contains all the Resources referred to in the questions.

Resource 1 for Question 1

Process of mapping flood risk



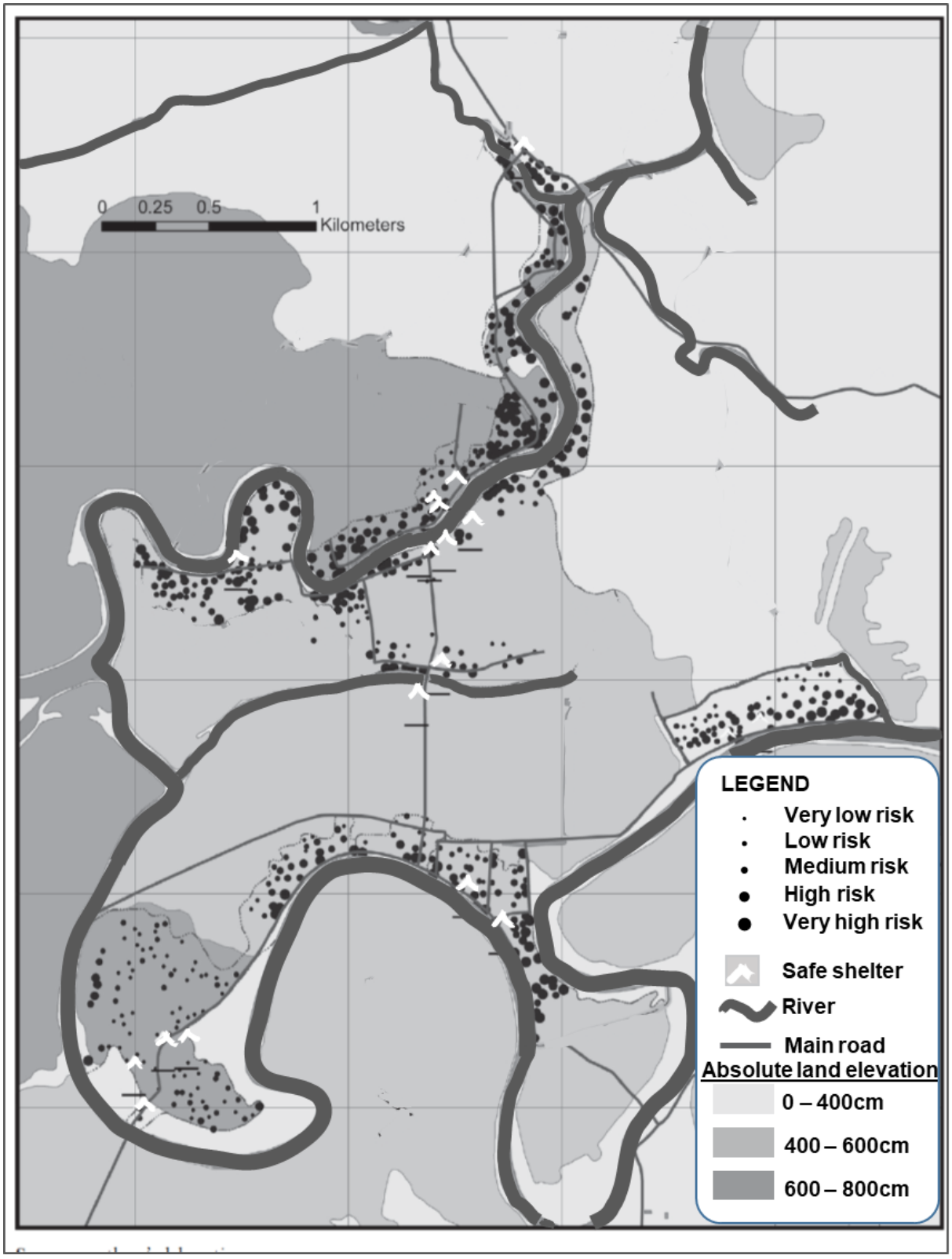
Resource 2 for Question 1

Index used by the researchers to measure the vulnerability of households in the village

Type of house	**Very low risk** **1** Two-storey reinforced concrete house with thick brick or block cement walls, secure doors and windows	**Low risk** **2** One-storey reinforced concrete house with thick brick or block cement walls, secure doors and windows	**Medium risk** **3** House built with reinforced concrete materials, and with insecure parts (due to improper construction techniques) that had been repaired	**High risk** **4** House built with reinforced concrete materials, but some parts insecure (due to improper construction techniques)	**Very high risk** **5** Bamboo or mixed material frame house, roof covered by thatch or corrugated metal
Household proximity to rivers	**Very low risk** **1** Very far from rivers	**Low risk** **2** Far from rivers	**Medium risk** **3** Moderate distance to rivers	**High risk** **4** Close to rivers	**Very high risk** **5** Very close to rivers
Household proximity to safe shelter	**Very low risk** **1** Extremely close to safe shelter (<50m)	**Low risk** **2** Very close to safe shelter (50 – 100m)	**Medium risk** **3** Moderate distance to safe shelter (100 – 150m)	**High risk** **4** Long distance to safe shelter (150 – 200m)	**Very high risk** **5** Very long distance to safe shelter (>200m)
Household proximity to main road	**Very low risk** **1** Very close to main road (<30m)	**Low risk** **2** Close to main road (30 – 60m)	**Medium risk** **3** Moderate distance to main road (60 – 90m)	**High risk** **4** Long distance to main road (90 – 120m)	**Very high risk** **5** Very long distance to main road (>120m)

Resource 3 for Question 1

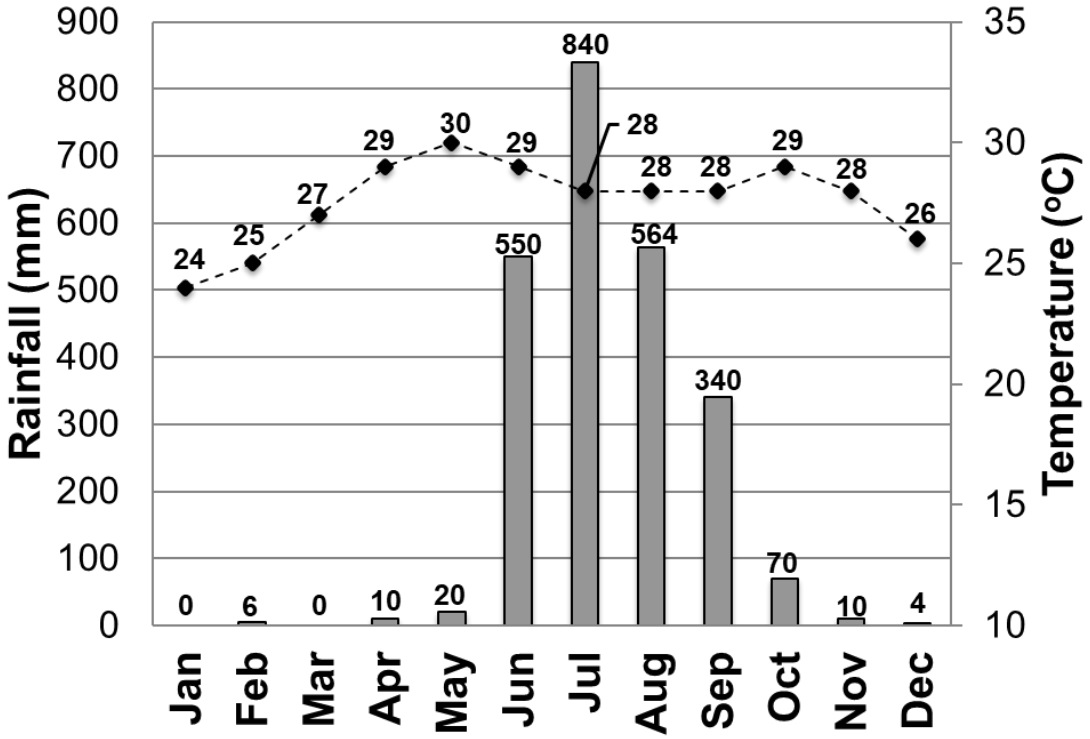
Flood risk map of Quang Tho village



Resource 4 for Question 2

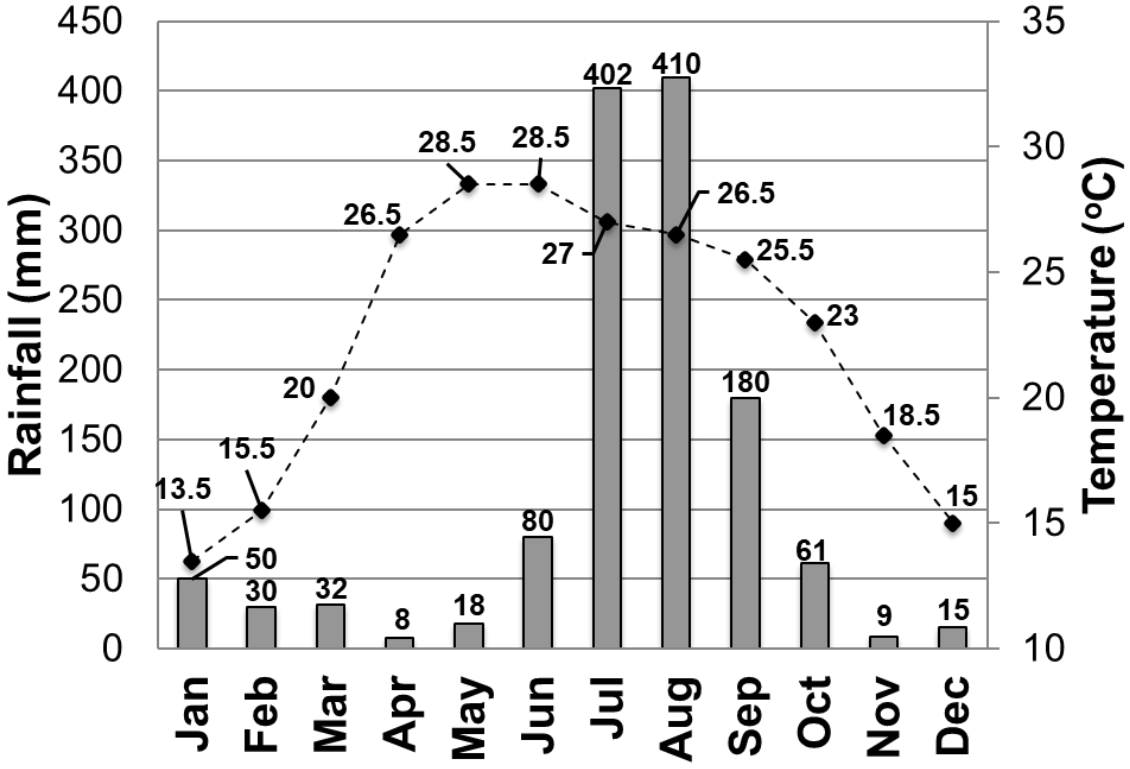
Resource 4A

Climograph of Mumbai



Resource 4B

Climograph of Hardwar



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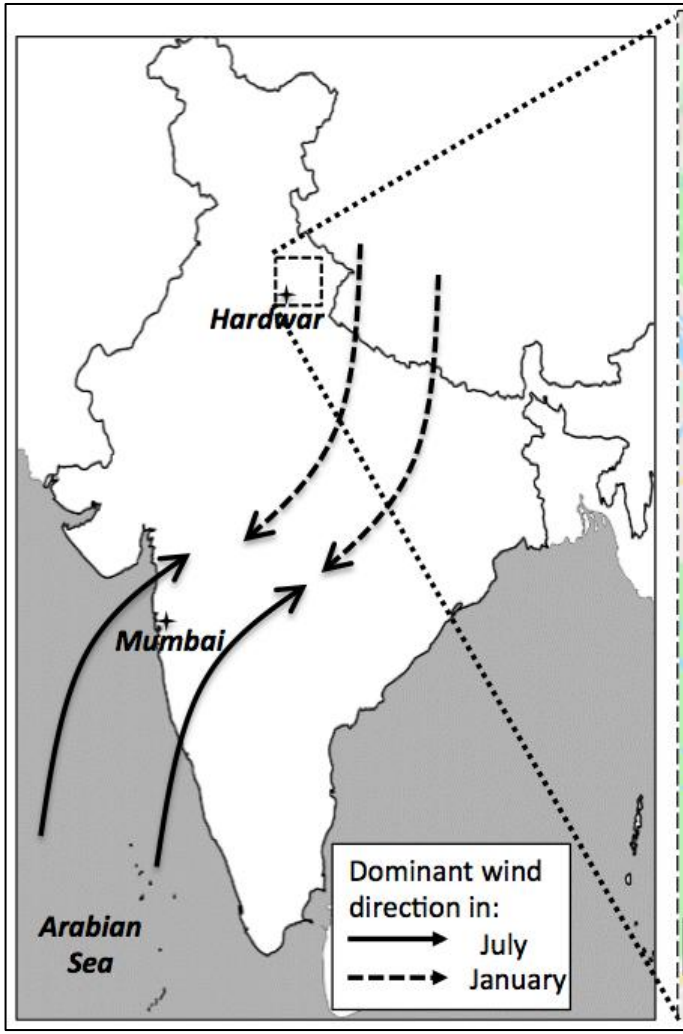
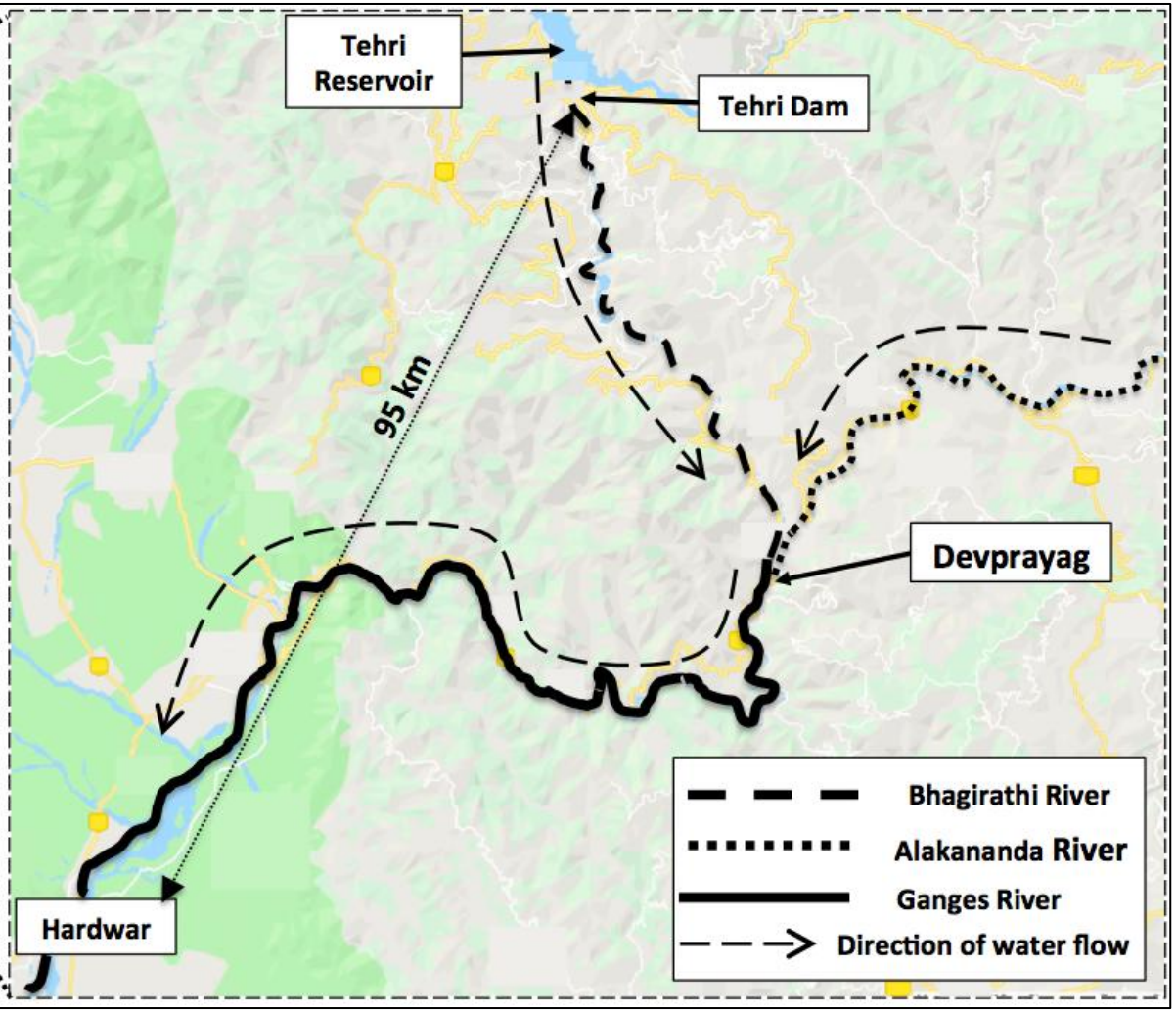
Resource 5 for Question 2

Resource 5A
Dominant wind direction over India in July and January



Resource 5B
River systems near Hardwar



Resource 6 for Question 2

Change in inflow over time at Hardwar and Tehri Reservoir during a rainfall event