Hydrographs

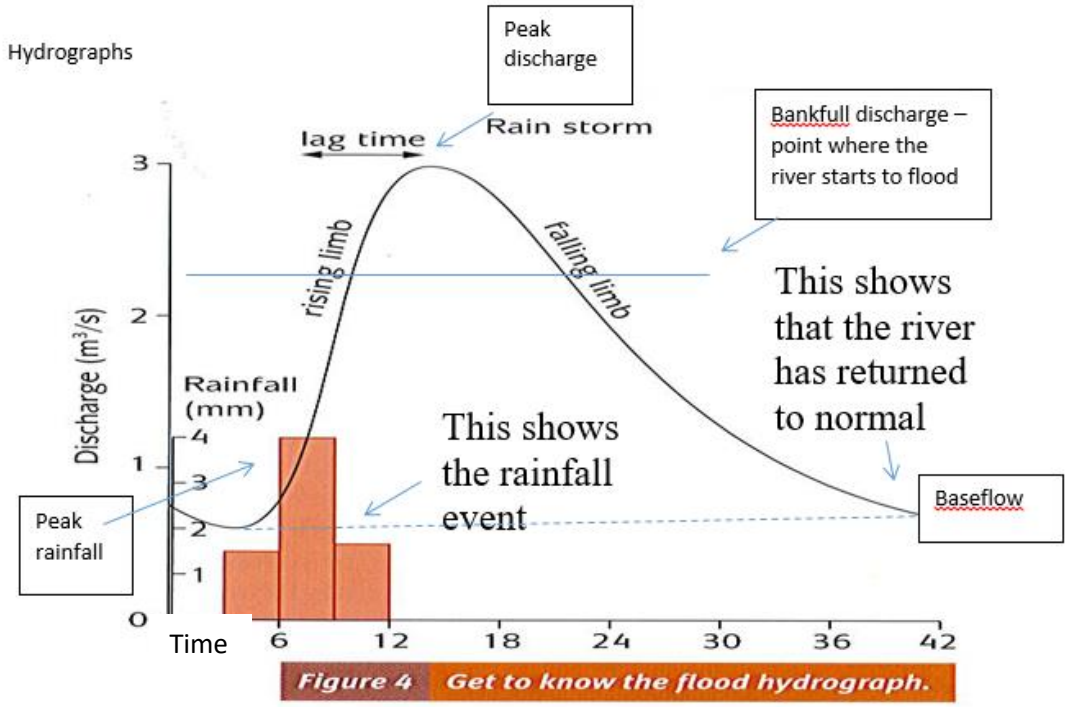

Figure 4 **Get to know the flood hydrograph.**

1. Draw and label the flood hydrograph below.

Flood Hydrographs

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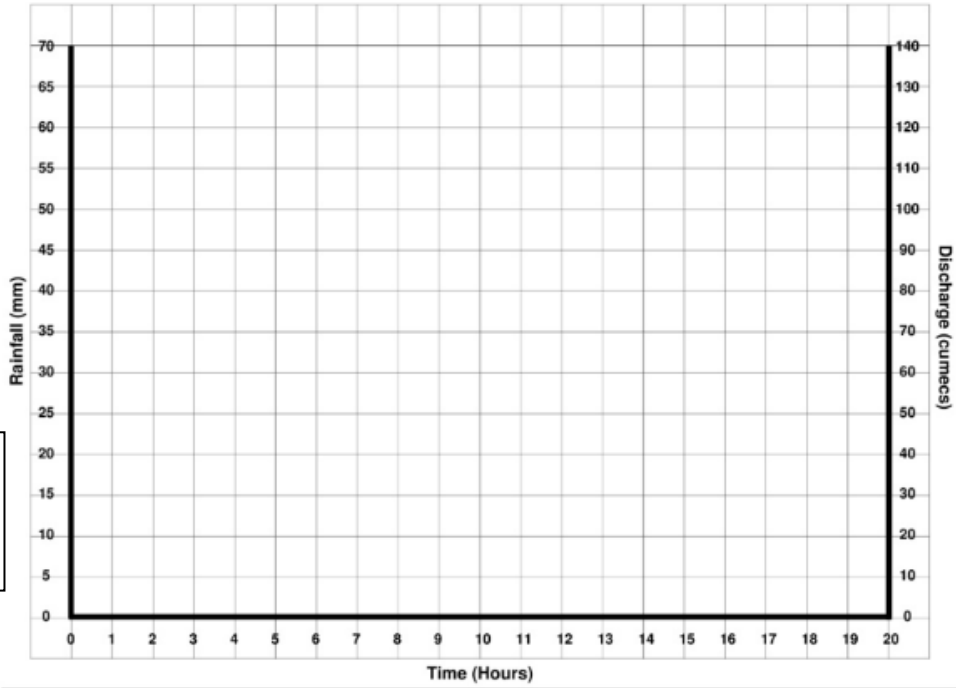

Use this data to draw the bar graph

Use this data to draw the line graph

Base flow of 30 cumecs

Hours	1st	2nd	3rd	4th	5th	6th
Rainfall (mm)	10	30	40	25	15	5

Flood level at discharge of 70 cumecs

Time (hours)	0	2	4	6	8	10	12	14	16	18	20
Discharge (cumecs)	30	35	45	80	130	100	70	50	40	35	30

2. Label the hydrograph

- Rising limb
- Falling Limb
- Peak flow/ discharge
- Baseflow
- Bankfull Discharge
- Lag time
- Peak precipitation

3. What time was Peak rainfall? (1 mark)
4. What time was peak discharge? (1 mark)
5. Total amount of rainfall during the storm. Show your working for second mark (2 marks)

6. Calculate the lag time. Show your working for second mark (2 marks)

7. Explain one physical factor, other than rainfall, that causes lagtime to vary. (2 marks)

8. Explain why urbanisation can increase risk of river flooding. (6 marks)