

SECTION-2

Ques. 3. Design flood: Design flood is ~~the~~ the value of the instantaneous peak discharge adopted for the design of a particular object or any of its structures. In addition to the considerations of the flood characteristics, frequencies and potentiality of the contributing drainage area above the structure.

→ Def: The term "design flood" is used to denote maximum flood flow that could be passed without damage or serious threat to the stability of engineering structure.

→ factors affecting the flood hydrography:

- Shape of the drainage basin.
- Topography & relief
- Heavy storms
- lengthy rainfall.
- snowfall.
- Vegetation
- Rock type - [permeable / Impermeable.

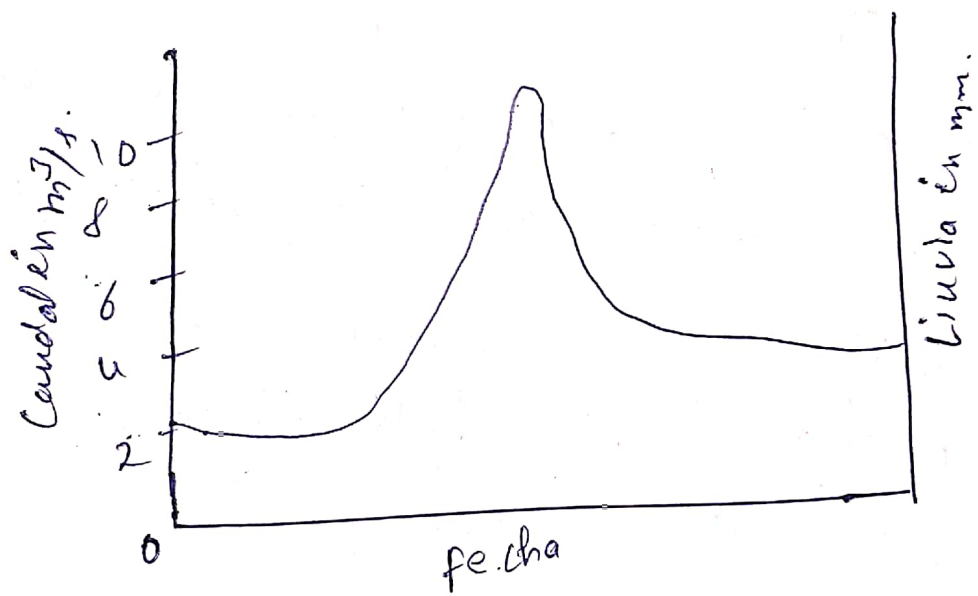
→ Unit Hydrograph:

→ An unit hydrograph is the theoretical unit response of a watershed (In terms of runoff volume & timing) to a unit point input

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ane. 3. of rainfall. It can be defined as direct runoff hydrograph resulting from one unit (e.g, one cm or one inch) of effective rainfall occurring uniformly over that watershed at a uniform rate over a unit period of time.



As a unit is applicable only to the direct runoff component of a hydrograph (ie., surface runoff), a separate determination of the baseflow component is required.