

**B.Tech. Civil (Water Resources Engineering)**

**Term-End Examination**

**June, 2017**

**00655**

**ET-532(A) : HYDROLOGY**

*Time : 3 hours*

*Maximum Marks : 70*

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**Note :** Answer any **five** questions. All questions carry equal marks. Give neat and labelled sketches.

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1. (a) Explain hydrologic cycle. 7  
(b) What is evapotranspiration ? How can you estimate it ? 7
2. (a) Explain Symons rain gauge. 7  
(b) Explain the methods for calculation of average precipitation. 7
3. (a) What are the methods of computing direct runoff ? Explain one of them. 7  
(b) How can you measure the stage ? Describe. 7
4. (a) How can you measure the discharge of a channel ? Explain any one method. 7  
(b) Define unit hydrograph and give the underlying assumptions. 7

5. (a) What are the types of distribution of sample data ? 7  
(b) Explain the regional frequency analysis. 7
6. (a) Explain the Muskingum method. 7  
(b) Explain the rational method for flood estimation. 7
7. (a) Write about DPAP. 7  
(b) Explain Gumbel's probability method. 7
8. (a) What are the factors affecting infiltration ? 7  
(b) Explain : 7  
(i) Unconfined aquifer  
(ii) Confined aquifer
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