Total No. of printed pages = 4

RETEST EXAMINATION–2019

Semester : 6th

Subject Code : CT-612

WATER RESOURCE ENGINEERING

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks
for the questions.

Instructions :

1. *All* questions of PART–A are compulsory.

2. Answer any *five* questions from PART–B.

PART – A

Marks – 25

1. Fill in the blanks :

   (a) _____ is a geological formation through
   which only seepage is possible.   2

[Turn over

(b) _____ is a geological formation which is impermeable to water flow. 2

(c) _____ is a geological formation which is neither porous nor permeable. 2

(d) The amount of pore space per unit volume of the aquifer material is _____. 2

(e) The plot between accumulated rainfall and time is called _____. 2

(f) The plot between intensity of rainfall and time is called _____. 2

(g) A fine sprinkle of water droplets of size less than 0.5 mm and intensity less than 1 mm/h is called _____. 2

(h) When rain comes in contact with the cold ground at 0°C, the water drops freeze to form _____. 2

(i) Symon's Gauge is an example of _____ rain gauge. 2

(j) Weighing Bucket is an example of _____ rain gauge. 2

(k) Rabi crop season falls in the _____ months of the year. 2

(l) Kharib crop season falls in the _____ months of the year. 2

(m) The plot between discharge and time is called _____. 1

PART–B

Marks – 45

Ordinates of 4h unit hydrograph is given below, using this derive the ordinates of 2h unit hydrograph.

Time (h)	0	4	12	16	20	24	28	32	36	40
4h UH(m³/h)	0	20	80	130	150	130	90	52	27	0

3. Write in details which are the factors affect the hydrograph. 9

4. Derive the differential equation for unsteady ground water flow in a confined aquifer. 9

5. Describe the different instruments used for rainfall measurement with figures. 9

6. Write short notes on : 3×3=9

   (a) Unit Hydrograph

   (b) Types of precipitation

   (c) River Training

7. What are the effects, causes and remedial measures of water logging in agricultural land ? 9