TANK MODEL
PHEWA LAKE CALIBRATION

Table 1 TANK MODEL(Phewa Lake calibration)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data

Result of Simulation

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Subsurface ruoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
03-Jan-83	1	0.4	1	1.00	1.89	100.40	1.01	0.35	7.90	32.90	0.00	0.00	1.71	1501.71	0.53
04-Jan-83	2	0	0.8	1.00	1.70	92.50	0.85	0.31	7.25	37.44	0.00	0.00	5.80	1506.98	0.53
05-Jan-83	3	0	1.5	1.00	1.52	85.25	0.70	0.28	6.52	37.37	0.00	0.00	5.73	1512.18	0.54
06-Jan-83	4	0	1.9	1.00	1.35	78.72	0.57	0.24	5.87	36.01	0.00	0.00	4.51	1516.15	0.54
07-Jan-83	5	0	1.7	1.00	1.21	72.85	0.46	0.21	5.28	34.89	0.00	0.00	3.50	1519.11	0.54
08-Jan-83	6	0	2	1.00	1.08	67.56	0.35	0.19	4.76	34.45	0.00	0.00	3.10	1521.67	0.54
09-Jan-83	7	0	3.3	1.00	0.96	62.81	0.26	0.16	4.28	33.63	0.00	0.00	2.36	1523.50	0.54
10-Jan-83	8	0	1.9	1.00	0.85	58.53	0.17	0.14	3.85	31.82	0.00	0.00	0.73	1523.69	0.54
11-Jan-83	9	0	2.1	1.00	0.76	54.67	0.09	0.12	3.47	32.65	0.00	0.00	1.48	1524.64	0.54
12-Jan-83	10	0	1.7	1.00	0.67	51.21	0.02	0.11	3.12	32.19	0.00	0.00	1.07	1525.16	0.54
13-Jan-83	11	0	2	1.00	0.63	48.09	0.00	0.09	2.81	32.23	0.00	0.00	1.10	1525.73	0.54
14-Jan-83	12	0	2.3	1.00	0.62	45.28	0.00	0.08	2.53	31.65	0.00	0.00	0.59	1525.77	0.54
15-Jan-83	13	0	2.1	1.00	0.60	42.75	0.00	0.06	2.27	31.04	0.00	0.00	0.04	1525.27	0.54
16-Jan-83	14	0	2.4	1.00	0.59	40.47	0.00	0.05	2.05	30.95	0.00	0.00	0.00	1524.73	0.54
17-Jan-83	15	0	1	1.00	0.58	38.43	0.00	0.04	1.84	30.39	0.00	0.00	0.00	1524.19	0.54
18-Jan-83	16	0	2.6	1.00	0.57	36.58	0.00	0.03	1.66	31.05	0.00	0.00	0.05	1523.70	0.54
19-Jan-83	17	0	2.5	1.00	0.56	34.93	0.00	0.02	1.49	29.90	0.00	0.00	0.00	1523.16	0.54
20-Jan-83	18	0	2	0.96	0.56	33.43	0.00	0.02	1.34	28.74	0.00	0.00	0.00	1522.62	0.54
21-Jan-83	19	0	2.5	0.96	0.55	32.09	0.00	0.01	1.21	27.95	0.00	0.00	0.00	1522.08	0.54
22-Jan-83	20	0	1.8	0.96	0.54	30.88	0.00	0.00	1.09	26.54	0.00	0.00	0.00	1521.54	0.54
23-Jan-83	21	0	2.2	0.96	0.54	29.79	0.00	0.00	0.98	25.72	0.00	0.00	0.00	1521.00	0.54
24-Jan-83	22	0	1.5	0.96	0.54	28.81	0.00	0.00	0.88	24.40	0.00	0.00	0.00	1520.46	0.54
25-Jan-83	23	0	2.8	0.96	0.54	27.93	0.00	0.00	0.79	23.69	0.00	0.00	0.00	1519.93	0.54
26-Jan-83	24	0	1.5	0.96	0.54	27.14	0.00	0.00	0.71	21.61	0.00	0.00	0.00	1519.39	0.54
27-Jan-83	25	0	3	0.96	0.54	26.43	0.00	0.00	0.64	20.75	0.00	0.00	0.00	1518.85	0.54
28-Jan-83	26	2.3	4	0.96	0.54	28.08	0.00	0.00	0.81	18.56	0.00	0.00	0.00	1518.31	0.54
29-Jan-83	27	13	2.08	0.96	0.59	40.27	0.00	0.05	2.03	16.58	0.00	0.00	0.00	1517.77	0.54
30-Jan-83	28	0	2.08	0.93	0.58	38.25	0.00	0.04	1.82	16.33	0.00	0.00	0.00	1517.24	0.54
31-Jan-83	29	2.4	2.1	0.96	0.58	38.82	0.00	0.04	1.88	16.13	0.00	0.00	0.00	1516.70	0.54

Table 1 TANK MODEL(Phewa Lake calibration)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data

Result of Simulation

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Subsurface runoff tank: Subsurface percolation	Subsurface runoff tank: Tank storage capacity	Subsurface runoff tank: Rapid runoff	Subsurface runoff tank: Subsurface runoff	Subsurface runoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Feb-83	30	0	2.3	0.93	0.57	36.94	0.00	0.03	1.69	15.73	0.00	0.00	0.00	1516.16	0.54
02-Feb-83	31	0	3.9	0.93	0.56	35.25	0.00	0.03	1.52	14.95	0.00	0.00	0.00	1515.63	0.54
03-Feb-83	32	0	2.3	0.93	0.55	33.72	0.00	0.02	1.37	12.42	0.00	0.00	0.00	1515.09	0.54
04-Feb-83	33	0	3.1	0.93	0.55	32.35	0.00	0.01	1.23	11.36	0.00	0.00	0.00	1514.55	0.54
05-Feb-83	34	0	1.2	0.93	0.54	31.11	0.00	0.01	1.11	9.37	0.00	0.00	0.00	1514.02	0.54
06-Feb-83	35	0	1.2	0.93	0.54	30.00	0.00	0.00	1.00	9.17	0.00	0.00	0.00	1513.48	0.54
07-Feb-83	36	0	3.8	0.93	0.54	29.00	0.00	0.00	0.90	8.87	0.00	0.00	0.00	1512.95	0.54
08-Feb-83	37	0	0.9	0.93	0.54	28.10	0.00	0.00	0.81	5.88	0.00	0.00	0.00	1512.41	0.54
09-Feb-83	38	0	3.9	0.93	0.54	27.29	0.00	0.00	0.73	5.71	0.00	0.00	0.00	1511.87	0.54
10-Feb-83	39	0	3.1	0.93	0.54	26.56	0.00	0.00	0.66	2.46	0.00	0.00	0.00	1511.34	0.54
11-Feb-83	40	0	1.5	0.89	0.53	25.91	0.00	0.00	0.59	3.06	0.00	0.00	0.00	1510.80	0.53
12-Feb-83	41	0	3.5	0.89	0.53	25.32	0.00	0.00	0.53	2.09	0.00	0.00	0.00	1510.27	0.53
13-Feb-83	42	0	2.3	0.89	0.53	24.78	0.00	0.00	0.48	2.57	0.00	0.00	0.00	1509.73	0.53
14-Feb-83	43	0	1.8	0.89	0.53	24.31	0.00	0.00	0.43	0.70	0.00	0.00	0.00	1509.20	0.53
15-Feb-83	44	0	2.9	0.89	0.53	23.88	0.00	0.00	0.39	1.08	0.00	0.00	0.00	1508.67	0.53
16-Feb-83	45	0	2.5	0.89	0.53	23.49	0.00	0.00	0.35	1.43	0.00	0.00	0.00	1508.13	0.53
17-Feb-83	46	0	3.4	0.89	0.53	23.14	0.00	0.00	0.31	1.75	0.00	0.00	0.00	1507.60	0.53
18-Feb-83	47	0	4.1	0.89	0.53	22.83	0.00	0.00	0.28	2.03	0.00	0.00	0.00	1507.06	0.53
19-Feb-83	48	0	4.9	0.89	0.53	22.54	0.00	0.00	0.25	2.28	0.00	0.00	0.00	1506.53	0.53
20-Feb-83	49	0	2.9	0.89	0.53	22.29	0.00	0.00	0.23	2.51	0.00	0.00	0.00	1506.00	0.53
21-Feb-83	50	0	4.5	0.89	0.53	22.06	0.00	0.00	0.21	2.72	0.00	0.00	0.00	1505.46	0.53
22-Feb-83	51	0	1.6	0.89	0.53	21.85	0.00	0.00	0.19	2.90	0.00	0.00	0.00	1504.93	0.53
23-Feb-83	52	2.4	1.6	0.89	0.53	24.07	0.00	0.00	0.41	1.71	0.00	0.00	0.00	1504.40	0.53
24-Feb-83	53	0	4.3	0.89	0.53	23.66	0.00	0.00	0.37	0.48	0.00	0.00	0.00	1503.87	0.53
25-Feb-83	54	2.7	1.5	0.89	0.53	26.00	0.00	0.00	0.60	1.08	0.00	0.00	0.00	1503.33	0.53
26-Feb-83	55	0	3.5	0.89	0.53	25.40	0.00	0.00	0.54	1.62	0.00	0.00	0.00	1502.80	0.53
27-Feb-83	56	0	2.1	0.89	0.53	24.86	0.00	0.00	0.49	2.10	0.00	0.00	0.00	1502.27	0.53
28-Feb-83	57	0.6	3.3	0.89	0.53	24.97	0.00	0.00	0.50	0.50	0.00	0.00	0.00	1501.74	0.53

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Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data

Result of Simulation

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Subsurface ruoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Mar-83	58	0	4	0.89	0.53	24.47	0.00	0.00	0.45	0.95	0.00	0.00	0.00	1501.21	0.53
02-Mar-83	59	0	3	0.89	0.53	24.03	0.00	0.00	0.40	1.35	0.00	0.00	0.00	1500.68	0.53
03-Mar-83	60	0	5.86	0.89	0.53	23.62	0.00	0.00	0.36	1.71	0.00	0.00	0.00	1500.14	0.53
04-Mar-83	61	0	4.2	0.89	0.53	23.26	0.00	0.00	0.33	2.04	0.00	0.00	0.00	1499.61	0.53
05-Mar-83	62	0	5.6	0.89	0.53	22.94	0.00	0.00	0.29	2.33	0.00	0.00	0.00	1499.08	0.53
06-Mar-83	63	0	3.6	0.89	0.53	22.64	0.00	0.00	0.26	2.59	0.00	0.00	0.00	1498.55	0.53
07-Mar-83	64	0	2.6	0.89	0.53	22.38	0.00	0.00	0.24	2.83	0.00	0.00	0.00	1498.02	0.53
08-Mar-83	65	0	4.3	0.89	0.53	22.14	0.00	0.00	0.21	0.45	0.00	0.00	0.00	1497.49	0.53
09-Mar-83	66	0	4.3	0.89	0.53	21.93	0.00	0.00	0.19	0.64	0.00	0.00	0.00	1496.96	0.53
10-Mar-83	67	0	2.6	0.89	0.53	21.73	0.00	0.00	0.17	0.81	0.00	0.00	0.00	1496.43	0.53
11-Mar-83	68	0	3.7	0.89	0.53	21.56	0.00	0.00	0.16	0.97	0.00	0.00	0.00	1495.90	0.53
12-Mar-83	69	0	5.9	0.89	0.53	21.40	0.00	0.00	0.14	1.11	0.00	0.00	0.00	1495.37	0.53
13-Mar-83	70	0	6.2	0.89	0.53	21.26	0.00	0.00	0.13	1.23	0.00	0.00	0.00	1494.84	0.53
14-Mar-83	71	0	6.3	0.89	0.53	21.14	0.00	0.00	0.11	1.35	0.00	0.00	0.00	1494.31	0.53
15-Mar-83	72	0	4.4	0.89	0.53	21.02	0.00	0.00	0.10	1.45	0.00	0.00	0.00	1493.78	0.53
16-Mar-83	73	8.6	4.8	0.89	0.53	29.52	0.00	0.00	0.95	2.40	0.00	0.00	0.00	1493.25	0.53
17-Mar-83	74	0	5.1	0.89	0.53	28.57	0.00	0.00	0.86	3.26	0.00	0.00	0.00	1492.73	0.53
18-Mar-83	75	0	4.8	0.85	0.53	27.71	0.00	0.00	0.77	4.03	0.00	0.00	0.00	1492.20	0.53
19-Mar-83	76	0	4.9	0.85	0.53	26.94	0.00	0.00	0.69	4.72	0.00	0.00	0.00	1491.67	0.53
20-Mar-83	77	17.8	4.49	0.85	0.60	44.05	0.00	0.07	2.40	7.13	0.00	0.00	0.00	1491.14	0.53
21-Mar-83	78	0	2	0.85	0.59	41.64	0.00	0.06	2.16	4.80	0.00	0.00	0.00	1490.61	0.53
22-Mar-83	79	3.4	5.2	0.85	0.59	42.88	0.00	0.06	2.29	5.09	0.00	0.00	0.00	1490.09	0.53
23-Mar-83	80	0	3.5	0.85	0.58	40.59	0.00	0.05	2.06	7.15	0.00	0.00	0.00	1489.56	0.53
24-Mar-83	81	0	4.5	0.85	0.57	38.53	0.00	0.04	1.85	5.50	0.00	0.00	0.00	1489.03	0.53
25-Mar-83	82	0	5.8	0.85	0.56	36.68	0.00	0.03	1.67	2.67	0.00	0.00	0.00	1488.50	0.53
26-Mar-83	83	0	3.7	0.85	0.55	35.01	0.00	0.03	1.50	4.17	0.00	0.00	0.00	1487.98	0.53
27-Mar-83	84	0	0.8	0.85	0.54	33.51	0.00	0.02	1.35	1.82	0.00	0.00	0.00	1487.45	0.53
28-Mar-83	85	0	5.7	0.85	0.54	32.16	0.00	0.01	1.22	2.24	0.00	0.00	0.00	1486.92	0.53
29-Mar-83	86	0	6	0.85	0.53	30.94	0.00	0.00	1.09	3.33	0.00	0.00	0.00	1486.40	0.53
30-Mar-83	87	0	5.7	0.85	0.53	29.85	0.00	0.00	0.98	4.32	0.00	0.00	0.00	1485.87	0.53
31-Mar-83	88	0	5.7	0.85	0.53	28.86	0.00	0.00	0.89	5.20	0.00	0.00	0.00	1485.35	0.53

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P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
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Input Data

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01-Apr-83	89	0	3.3	0.85	0.53	27.98	0.00	0.00	0.80	6.00	0.00	0.00	0.00	1484.82	0.53
02-Apr-83	90	0	7.6	0.85	0.53	27.18	0.00	0.00	0.72	3.42	0.00	0.00	0.00	1484.29	0.53
03-Apr-83	91	0	6.5	0.85	0.53	26.46	0.00	0.00	0.65	4.07	0.00	0.00	0.00	1483.77	0.53
04-Apr-83	92	0	5.5	0.85	0.53	25.82	0.00	0.00	0.58	4.65	0.00	0.00	0.00	1483.24	0.53
05-Apr-83	93	0	10.1	0.85	0.52	25.23	0.00	0.00	0.52	5.17	0.00	0.00	0.00	1482.72	0.52
06-Apr-83	94	0	18	0.85	0.52	24.71	0.00	0.00	0.47	5.64	0.00	0.00	0.00	1482.19	0.52
07-Apr-83	95	0	7.2	0.85	0.52	24.24	0.00	0.00	0.42	6.07	0.00	0.00	0.00	1481.67	0.52
08-Apr-83	96	0	5.8	0.85	0.52	23.82	0.00	0.00	0.38	6.45	0.00	0.00	0.00	1481.14	0.52
09-Apr-83	97	0	12.4	0.85	0.52	23.43	0.00	0.00	0.34	0.99	0.00	0.00	0.00	1480.62	0.52
10-Apr-83	98	0	1.9	0.85	0.52	23.09	0.00	0.00	0.31	1.30	0.00	0.00	0.00	1480.10	0.52
11-Apr-83	99	3	5	0.85	0.52	25.78	0.00	0.00	0.58	1.88	0.00	0.00	0.00	1479.57	0.52
12-Apr-83	100	2.7	4.1	0.85	0.52	27.90	0.00	0.00	0.79	2.67	0.00	0.00	0.00	1479.05	0.52
13-Apr-83	101	5.6	4.1	0.85	0.54	32.71	0.00	0.01	1.27	3.94	0.00	0.00	0.00	1478.52	0.52
14-Apr-83	102	0.3	6.7	0.85	0.53	31.74	0.00	0.01	1.17	5.11	0.00	0.00	0.00	1478.00	0.52
15-Apr-83	103	0	8.8	0.85	0.53	30.57	0.00	0.00	1.06	6.17	0.00	0.00	0.00	1477.48	0.52
16-Apr-83	104	0	9	0.85	0.52	29.51	0.00	0.00	0.95	7.12	0.00	0.00	0.00	1476.95	0.52
17-Apr-83	105	0	5.2	0.85	0.52	28.56	0.00	0.00	0.86	7.98	0.00	0.00	0.00	1476.43	0.52
18-Apr-83	106	0	7.4	0.89	0.52	27.70	0.00	0.00	0.77	3.55	0.00	0.00	0.00	1475.91	0.52
19-Apr-83	107	9	10.7	0.85	0.55	35.93	0.00	0.03	1.59	5.14	0.00	0.00	0.00	1475.39	0.52
20-Apr-83	108	0	6.2	0.85	0.54	34.34	0.00	0.02	1.43	6.58	0.00	0.00	0.00	1474.86	0.52
21-Apr-83	109	0	12.6	0.85	0.54	32.91	0.00	0.01	1.29	1.67	0.00	0.00	0.00	1474.34	0.52
22-Apr-83	110	0	5.6	0.85	0.53	31.62	0.00	0.01	1.16	2.83	0.00	0.00	0.00	1473.82	0.52
23-Apr-83	111	7.9	7.8	0.85	0.56	38.35	0.00	0.04	1.84	4.66	0.00	0.00	0.00	1473.30	0.52
24-Apr-83	112	7.5	11.9	0.89	0.59	44.02	0.00	0.07	2.40	7.06	0.00	0.00	0.00	1472.78	0.52
25-Apr-83	113	0.3	5.5	0.89	0.58	41.92	0.00	0.06	2.19	9.26	0.00	0.00	0.00	1472.26	0.52
26-Apr-83	114	22.1	5.6	0.89	0.92	61.82	0.24	0.16	4.18	7.94	0.00	0.00	0.00	1471.73	0.52
27-Apr-83	115	23.7	3.5	0.93	1.40	81.34	0.63	0.26	6.13	8.47	0.00	0.00	0.00	1471.21	0.52
28-Apr-83	116	11	9.1	0.93	1.53	86.21	0.72	0.28	6.62	11.59	0.00	0.00	0.00	1470.69	0.52
29-Apr-83	117	10.4	5.6	0.93	1.62	89.99	0.80	0.30	7.00	9.49	0.00	0.00	0.00	1470.17	0.52
30-Apr-83	118	0.6	15.2	0.93	1.46	83.59	0.67	0.27	6.36	10.25	0.00	0.00	0.00	1469.65	0.52

Table 1 TANK MODEL(Phewa Lake calibration)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data

Result of Simulation

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Surface runoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-May-83	119	0.5	11.5	0.93	1.31	77.73	0.55	0.24	5.77	16.02	0.00	0.00	0.00	1469.13	0.52
02-May-83	120	3.4	4.3	0.93	1.25	75.36	0.51	0.23	5.54	10.06	0.00	0.00	0.00	1468.61	0.52
03-May-83	121	28.4	12.2	0.96	1.83	98.22	0.96	0.34	7.82	13.58	0.00	0.00	0.00	1468.09	0.52
04-May-83	122	0.1	4.8	0.93	1.63	90.50	0.81	0.30	7.05	8.43	0.00	0.00	0.00	1467.57	0.52
05-May-83	123	9.5	7.6	0.93	1.69	92.95	0.86	0.31	7.29	10.93	0.00	0.00	0.00	1467.05	0.52
06-May-83	124	9.6	5	0.93	1.75	95.25	0.91	0.33	7.53	10.85	0.00	0.00	0.00	1466.53	0.52
07-May-83	125	0.5	2.9	0.89	1.57	88.23	0.76	0.29	6.82	12.68	0.00	0.00	0.00	1466.01	0.52
08-May-83	126	2.4	3.6	0.89	1.46	83.81	0.68	0.27	6.38	16.16	0.00	0.00	0.00	1465.49	0.52
09-May-83	127	4	3.9	0.89	1.40	81.43	0.63	0.26	6.14	18.70	0.00	0.00	0.00	1464.98	0.52
10-May-83	128	5	5.6	0.93	1.38	80.28	0.61	0.25	6.03	20.83	0.00	0.00	0.00	1464.46	0.52
11-May-83	129	9	4.5	0.93	1.45	83.25	0.67	0.27	6.33	21.55	0.00	0.00	0.00	1463.94	0.52
12-May-83	130	3.8	3.6	1.00	1.39	80.73	0.61	0.25	6.07	23.13	0.00	0.00	0.00	1463.42	0.52
13-May-83	131	15.6	5.91	1.00	1.62	90.26	0.81	0.30	7.03	26.55	0.00	0.00	0.00	1462.90	0.52
14-May-83	132	17.9	5.91	1.57	1.90	101.13	1.02	0.36	8.11	28.75	0.00	0.00	0.00	1462.38	0.52
15-May-83	133	0.6	3.4	1.22	1.71	93.62	0.87	0.32	7.36	30.21	0.00	0.00	0.00	1461.87	0.52
16-May-83	134	40.2	7.9	1.57	2.53	126.46	1.53	0.48	10.65	37.45	0.00	0.00	5.81	1467.16	0.52
17-May-83	135	4.2	5.6	1.75	2.37	120.01	1.40	0.45	10.00	33.75	0.00	0.00	2.47	1469.11	0.52
18-May-83	136	1.9	2.9	1.22	2.17	111.91	1.24	0.41	9.19	34.87	0.00	0.00	3.48	1472.07	0.52
19-May-83	137	0.8	4.5	1.17	1.96	103.52	1.07	0.37	8.35	36.84	0.00	0.00	5.25	1476.80	0.52
20-May-83	138	3	4.5	7.53	1.83	98.17	0.96	0.34	7.82	34.90	0.00	0.00	3.51	1479.79	0.52
21-May-83	139	0	3.7	1.08	1.63	90.35	0.81	0.30	7.03	33.93	0.00	0.00	2.63	1481.90	0.52
22-May-83	140	11.6	5.3	1.13	1.75	94.91	0.90	0.32	7.49	35.08	0.00	0.00	3.68	1485.05	0.53
23-May-83	141	0	5	1.13	1.56	87.42	0.75	0.29	6.74	32.85	0.00	0.00	1.67	1486.19	0.53
24-May-83	142	25	26.9	1.31	2.02	105.68	1.11	0.38	8.57	34.75	0.00	0.00	3.38	1489.04	0.53
25-May-83	143	0.1	5.1	1.26	1.81	97.21	0.94	0.34	7.72	12.20	0.00	0.00	0.00	1488.51	0.53
26-May-83	144	0	7.6	1.22	1.61	89.49	0.79	0.30	6.95	14.05	0.00	0.00	0.00	1487.99	0.53
27-May-83	145	0	5.6	1.13	1.44	82.54	0.65	0.26	6.25	12.70	0.00	0.00	0.00	1487.46	0.53
28-May-83	146	7.3	7.6	1.36	1.47	83.59	0.67	0.27	6.36	13.46	0.00	0.00	0.00	1486.93	0.53
29-May-83	147	0	4.4	1.08	1.31	77.23	0.54	0.24	5.72	11.58	0.00	0.00	0.00	1486.41	0.53
30-May-83	148	0.7	5.7	1.08	1.18	72.21	0.44	0.21	5.22	12.40	0.00	0.00	0.00	1485.88	0.53
31-May-83	149	9	5.7	1.26	1.28	75.99	0.52	0.23	5.60	12.30	0.00	0.00	0.00	1485.35	0.53

Table 1 TANK MODEL(Phewa Lake calibration)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data

Result of Simulation

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Surface runoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Jun-83	150	0	4.7	1.13	1.14	70.39	0.41	0.20	5.04	11.64	0.00	0.00	0.00	1484.83	0.53
02-Jun-83	151	11.3	4.7	1.26	1.29	76.65	0.53	0.23	5.66	12.50	0.00	0.00	0.00	1484.30	0.53
03-Jun-83	152	11.3	4.7	1.36	1.43	82.26	0.65	0.26	6.23	14.13	0.00	0.00	0.00	1483.78	0.53
04-Jun-83	153	4	4.7	1.47	1.38	80.06	0.60	0.25	6.01	15.44	0.00	0.00	0.00	1483.25	0.53
05-Jun-83	154	41	4.7	1.57	2.25	115.05	1.30	0.43	9.50	20.24	0.00	0.00	0.00	1482.73	0.52
06-Jun-83	155	43.7	4.7	1.63	3.11	149.24	1.98	0.60	12.92	28.47	0.00	0.00	0.00	1482.20	0.52
07-Jun-83	156	10	4.7	1.47	3.03	146.32	1.93	0.58	12.63	36.40	0.00	0.00	4.86	1486.54	0.53
08-Jun-83	157	0.1	4.7	1.41	2.72	133.79	1.68	0.52	11.38	38.22	0.00	0.00	6.50	1492.51	0.53
09-Jun-83	158	43	4.7	1.36	3.52	165.41	2.31	0.68	14.54	41.56	0.00	0.00	9.51	1501.49	0.53
10-Jun-83	159	0.3	4.7	1.22	3.16	151.17	2.02	0.61	13.12	40.47	0.00	0.00	8.53	1509.48	0.53
11-Jun-83	160	1.8	4.7	1.22	2.88	139.85	1.80	0.55	11.99	39.23	0.00	0.00	7.41	1516.35	0.54
12-Jun-83	161	1.6	4.7	1.17	2.63	129.47	1.59	0.50	10.95	38.07	0.00	0.00	6.36	1522.18	0.54
13-Jun-83	162	0	4.7	1.17	2.35	118.52	1.37	0.44	9.85	36.86	0.00	0.00	5.27	1526.91	0.54
14-Jun-83	163	0	4.7	1.36	2.11	108.67	1.17	0.39	8.87	35.75	0.00	0.00	4.28	1530.65	0.54
15-Jun-83	164	19.4	4.7	1.41	2.37	119.20	1.38	0.45	9.92	36.70	0.00	0.00	5.13	1535.24	0.54
16-Jun-83	165	18.8	4.7	1.31	2.60	128.08	1.56	0.49	10.81	37.68	0.00	0.00	6.01	1540.70	0.55
17-Jun-83	166	12	4.7	1.36	2.63	129.27	1.59	0.50	10.93	37.90	0.00	0.00	6.21	1546.36	0.55
18-Jun-83	167	15.6	4.7	1.31	2.75	133.95	1.68	0.52	11.39	38.38	0.00	0.00	6.65	1552.46	0.55
19-Jun-83	168	16.2	4.7	1.31	2.87	138.75	1.78	0.54	11.88	38.91	0.00	0.00	7.12	1559.03	0.55
20-Jun-83	169	0	4.7	1.26	2.58	126.88	1.54	0.48	10.69	37.78	0.00	0.00	6.10	1564.58	0.55
21-Jun-83	170	13.6	4.7	1.17	2.65	129.79	1.60	0.50	10.98	37.96	0.00	0.00	6.26	1570.29	0.56
22-Jun-83	171	0	4.7	1.13	2.38	118.81	1.38	0.44	9.88	36.88	0.00	0.00	5.29	1575.02	0.56
23-Jun-83	172	6	4.7	1.13	2.28	114.93	1.30	0.42	9.49	36.38	0.00	0.00	4.84	1579.31	0.56
24-Jun-83	173	19.8	4.7	1.17	2.54	125.24	1.50	0.48	10.52	37.36	0.00	0.00	5.73	1584.47	0.56
25-Jun-83	174	0	4.7	1.26	2.28	114.71	1.29	0.42	9.47	36.41	0.00	0.00	4.87	1588.78	0.56
26-Jun-83	175	16.9	4.7	1.36	2.47	122.14	1.44	0.46	10.21	37.05	0.00	0.00	5.45	1593.67	0.56
27-Jun-83	176	32.3	4.7	1.36	3.02	144.23	1.88	0.57	12.42	39.33	0.00	0.00	7.50	1600.60	0.57
28-Jun-83	177	21.8	4.7	2.01	3.26	153.60	2.07	0.62	13.36	40.49	0.00	0.00	8.54	1608.57	0.57
29-Jun-83	178	20	4.7	2.30	3.43	160.24	2.20	0.65	14.02	41.27	0.00	0.00	9.25	1617.25	0.57
30-Jun-83	179	27	4.7	2.97	3.76	173.22	2.46	0.72	15.32	42.65	0.00	0.00	10.48	1627.16	0.58

Table 1 TANK MODEL(Phewa Lake calibration)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data

Result of Simulation

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Subsurface ruoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Jul-83	180	11.7	6.3	4.64	3.67	169.60	2.39	0.70	14.96	42.42	0.00	0.00	10.28	1636.87	0.58
02-Jul-83	181	30.8	13.6	3.57	4.07	185.44	2.71	0.78	16.54	42.39	0.00	0.00	10.25	1646.54	0.58
03-Jul-83	182	12.9	0.1	3.68	3.98	181.79	2.64	0.76	16.18	34.72	0.00	0.00	3.35	1649.30	0.58
04-Jul-83	183	10	6.3	2.88	4.75	175.61	2.51	0.73	15.56	46.83	0.00	0.92	14.25	1662.97	0.59
05-Jul-83	184	73.6	6.3	3.26	6.15	233.65	3.67	1.02	21.37	46.73	0.00	0.87	14.16	1676.54	0.59
06-Jul-83	185	21.7	6.3	2.79	6.20	233.99	3.68	1.02	21.40	46.81	0.00	0.90	14.23	1690.17	0.60
07-Jul-83	186	39.4	6.3	4.14	7.54	251.99	4.04	1.11	23.20	48.58	0.00	1.79	15.82	1705.39	0.60
08-Jul-83	187	64.3	6.3	5.05	11.66	293.09	4.86	1.32	27.31	51.98	1.38	3.49	18.88	1723.67	0.61
09-Jul-83	188	15.1	6.3	3.06	7.99	280.88	4.62	1.25	26.09	48.01	0.00	1.51	15.31	1736.37	0.62
10-Jul-83	189	28	12.1	4.77	10.45	282.79	4.66	1.26	26.28	51.17	0.82	3.09	18.16	1755.91	0.62
11-Jul-83	190	1.5	6.3	3.57	5.92	258.01	4.16	1.14	23.80	40.81	0.00	0.00	8.83	1764.12	0.62
12-Jul-83	191	0	7.6	3.26	6.39	234.21	3.68	1.02	21.42	47.10	0.00	1.05	14.49	1777.98	0.63
13-Jul-83	192	0	6.8	5.48	4.80	212.79	3.26	0.91	19.28	43.24	0.00	0.00	11.01	1788.37	0.63
14-Jul-83	193	18.3	8.1	4.02	4.78	211.81	3.24	0.91	19.18	44.61	0.00	0.00	12.24	1799.98	0.64
15-Jul-83	194	46.2	6.3	10.62	6.18	240.83	3.82	1.05	22.08	46.34	0.00	0.67	13.81	1813.15	0.64
16-Jul-83	195	29.7	2.5	6.97	7.41	248.45	3.97	1.09	22.84	48.41	0.00	1.70	15.67	1828.18	0.65
17-Jul-83	196	111.1	6.3	87.66	22.67	336.70	5.73	1.53	31.67	60.21	7.15	7.60	26.29	1853.82	0.66
18-Jul-83	197	6	5.2	13.08	7.29	311.03	5.22	1.41	29.10	41.98	0.00	0.00	9.88	1863.04	0.66
19-Jul-83	198	0.7	8.5	9.65	12.87	282.63	4.65	1.26	26.26	53.16	2.21	4.08	19.94	1882.32	0.67
20-Jul-83	199	18.2	5.8	8.75	6.38	274.57	4.49	1.22	25.46	43.88	0.00	0.00	11.59	1893.25	0.67
21-Jul-83	200	13.4	5.6	6.12	9.48	262.51	4.25	1.16	24.25	50.74	0.52	2.87	17.77	1910.34	0.68
22-Jul-83	201	32	5.8	7.92	8.29	270.26	4.41	1.20	25.03	49.01	0.00	2.01	16.21	1925.88	0.68
23-Jul-83	202	1.8	0.4	6.61	7.06	247.03	3.94	1.09	22.70	47.70	0.00	1.35	15.03	1940.22	0.69
24-Jul-83	203	1.5	6	14.62	9.49	225.83	3.52	0.98	20.58	51.50	1.05	3.25	18.45	1957.99	0.69
25-Jul-83	204	1.4	3.4	9.19	4.71	206.65	3.13	0.88	18.66	41.41	0.00	0.00	9.37	1966.67	0.70
26-Jul-83	205	57.3	10.5	10.62	9.59	245.28	3.91	1.08	22.53	51.17	0.82	3.08	18.15	1984.12	0.70
27-Jul-83	206	23	4.5	9.88	5.70	245.75	3.92	1.08	22.58	41.19	0.00	0.00	9.17	1992.59	0.71
28-Jul-83	207	0	5.5	9.65	6.56	223.18	3.46	0.97	20.32	47.84	0.00	1.42	15.15	2007.04	0.71
29-Jul-83	208	21.2	12.3	7.92	5.75	224.06	3.48	0.97	20.41	46.17	0.00	0.59	13.65	2019.98	0.72
30-Jul-83	209	7.7	5.1	13.08	4.85	211.35	3.23	0.91	19.14	38.77	0.00	0.00	6.99	2026.26	0.72
31-Jul-83	210	13.1	2.8	8.97	4.81	205.32	3.11	0.88	18.53	45.21	0.00	0.10	12.79	2038.33	0.72

Table 1 TANK MODEL(Phewa Lake calibration)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data

Result of Simulation — Surface runoff tank — Subsurface ruoff tank — Base runoff tank

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Tank storage capacity (mm)	Storm rainfall runoff	Rainfall runoff	Subsurface percolation	Tank storage capacity	Rapid runoff	Subsurface runoff	Subsurface percolation	Tank storage capacity	runoff
01-Aug-83	211	61.2	7.17	16.66	11.06	247.99	3.96	1.09	22.80	52.32	1.62	3.66	19.18	2056.79	0.73
02-Aug-83	212	169.2	6.4	23.22	21.69	394.39	6.89	1.82	37.44	58.12	5.69	6.56	24.41	2080.47	0.74
03-Aug-83	213	10.1	10.9	12.78	11.15	367.05	6.34	1.69	34.70	49.77	0.00	2.39	16.89	2096.63	0.74
04-Aug-83	214	43.4	6.5	10.37	17.69	375.74	6.51	1.73	35.57	55.17	3.62	5.08	21.75	2117.64	0.75
05-Aug-83	215	28.6	7.17	12.21	15.04	368.77	6.38	1.69	34.88	53.09	2.17	4.05	19.88	2136.77	0.76
06-Aug-83	216	22.6	6.3	11.93	15.20	356.49	6.13	1.63	33.65	53.48	2.43	4.24	20.23	2156.24	0.76
07-Aug-83	217	15.6	13.6	8.12	13.13	338.44	5.77	1.54	31.84	52.12	1.48	3.56	19.01	2174.49	0.77
08-Aug-83	218	30.4	17.2	7.53	8.63	337.00	5.74	1.53	31.70	46.17	0.00	0.58	13.65	2187.37	0.77
09-Aug-83	219	49	7.17	8.97	10.07	354.30	6.09	1.62	33.43	48.16	0.00	1.58	15.45	2202.04	0.78
10-Aug-83	220	120	7.17	12.21	32.42	440.87	7.82	2.05	42.09	66.05	11.24	10.53	31.55	2232.81	0.79
11-Aug-83	221	18.7	7.5	11.13	10.24	417.48	7.35	1.94	39.75	45.32	0.00	0.16	12.89	2244.91	0.79
12-Aug-83	222	0.2	4.5	11.93	24.28	377.93	6.56	1.74	35.79	60.56	7.40	7.78	26.61	2270.72	0.80
13-Aug-83	223	0	7.1	8.53	8.96	342.14	5.84	1.56	32.21	46.49	0.00	0.75	13.94	2283.86	0.81
14-Aug-83	224	1	5	6.44	14.49	310.93	5.22	1.40	29.09	53.80	2.66	4.40	20.52	2303.57	0.82
15-Aug-83	225	2.4	1.6	5.79	8.10	284.23	4.68	1.27	26.42	47.65	0.00	1.32	14.98	2317.74	0.82
16-Aug-83	226	18.4	8.2	5.48	15.52	276.21	4.52	1.23	25.62	55.36	3.75	5.18	21.93	2338.84	0.83
17-Aug-83	227	3.1	8.3	6.44	6.02	253.69	4.07	1.12	23.37	39.67	0.00	0.00	7.80	2345.82	0.83
18-Aug-83	228	8	4.5	5.79	5.84	238.32	3.77	1.04	21.83	45.40	0.00	0.20	12.96	2357.95	0.83
19-Aug-83	229	0.6	7.2	5.33	6.34	217.09	3.34	0.94	19.71	47.45	0.00	1.22	14.80	2371.92	0.84
20-Aug-83	230	16.1	7.17	5.19	5.03	213.48	3.27	0.92	19.35	43.57	0.00	0.00	11.31	2382.39	0.84
21-Aug-83	231	0	6.1	4.26	4.55	194.13	2.88	0.82	17.41	42.50	0.00	0.00	10.35	2391.90	0.85
22-Aug-83	232	1.1	3.5	6.79	4.15	177.82	2.56	0.74	15.78	41.83	0.00	0.00	9.75	2400.80	0.85
23-Aug-83	233	0	8.4	5.48	3.75	162.04	2.24	0.66	14.20	42.79	0.00	0.00	10.61	2410.56	0.85
24-Aug-83	234	42.7	6.3	4.77	4.47	190.53	2.81	0.80	17.05	40.83	0.00	0.00	8.65	2418.55	0.86
25-Aug-83	235	40	7.17	8.32	5.05	213.48	3.27	0.92	19.35	43.03	0.00	0.00	10.83	2428.52	0.86
26-Aug-83	236	29.6	4.9	16.66	5.51	223.73	3.47	0.97	20.37	45.41	0.00	0.20	12.97	2440.63	0.86
27-Aug-83	237	11.3	7.17	11.13	5.99	214.66	3.29	0.92	19.47	46.80	0.00	0.90	14.22	2453.99	0.87
28-Aug-83	238	73	7.17	9.42	8.59	268.19	4.36	1.19	24.82	49.33	0.00	2.18	16.50	2469.61	0.87
29-Aug-83	239	156.2	4.6	11.13	25.97	399.57	6.99	1.85	37.96	61.46	8.02	8.23	27.41	2496.15	0.88
30-Aug-83	240	4.2	7.17	10.37	10.27	365.82	6.32	1.68	34.58	47.78	0.00	1.39	15.10	2510.37	0.89
31-Aug-83	241	81.7	7.17	11.93	28.67	412.93	7.26	1.91	39.29	63.41	9.39	9.21	29.17	2538.65	0.90

Table 1 TANK MODEL(Phewa Lake calibration)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data

Result of Simulation

						Surface runoff tank				Subsurface ruoff tank				Base runoff tank	
Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Tank storage capacity (mm)	Storm rainfall runoff	Rainfall runoff	Subsurface percolation	Tank storage capacity	Rapid runoff	Subsurface runoff	Subsurface percolation	Tank storage capacity	runoff
01-Sep-83	242	79.3	6.02	20.56	15.70	452.94	8.06	2.11	43.29	51.77	1.24	3.39	18.69	2558.45	0.90
02-Sep-83	243	28.8	9.7	11.13	30.36	438.45	7.77	2.04	41.84	64.28	9.99	9.64	29.95	2585.49	0.92
03-Sep-83	244	3.6	5.6	9.19	9.77	400.20	7.00	1.85	38.02	43.02	0.00	0.00	10.81	2595.39	0.92
04-Sep-83	245	7.6	6.6	22.30	25.42	369.78	6.40	1.70	34.98	61.58	8.11	8.29	27.52	2621.99	0.93
05-Sep-83	246	32.4	10.2	16.31	9.35	367.20	6.34	1.69	34.72	45.78	0.00	0.39	13.30	2634.37	0.93
06-Sep-83	247	72	6.02	24.16	24.81	404.48	7.09	1.87	38.45	60.34	7.23	7.67	26.40	2659.84	0.94
07-Sep-83	248	48.4	6.02	13.08	16.60	414.44	7.29	1.92	39.44	52.45	1.72	3.73	19.31	2678.21	0.95
08-Sep-83	249	17.8	5.2	13.08	22.88	392.79	6.86	1.81	37.28	58.96	6.27	6.98	25.16	2702.42	0.96
09-Sep-83	250	7	6.8	17.03	11.17	362.51	6.25	1.66	34.25	49.60	0.00	2.30	16.74	2718.20	0.96
10-Sep-83	251	39	6.02	15.96	21.69	367.26	6.35	1.69	34.73	58.49	5.94	6.74	24.74	2741.98	0.97
11-Sep-83	252	6	6.02	11.39	9.24	338.54	5.77	1.54	31.85	46.90	0.00	0.95	14.31	2755.31	0.98
12-Sep-83	253	15.6	2.6	8.53	17.41	322.28	5.45	1.46	30.23	55.85	4.09	5.42	22.36	2776.70	0.98
13-Sep-83	254	2.9	7.8	7.92	9.14	294.95	4.90	1.32	27.50	48.86	0.00	1.93	16.08	2791.79	0.99
14-Sep-83	255	5.3	1.5	11.66	8.33	272.76	4.46	1.21	25.28	48.33	0.00	1.67	15.60	2806.40	0.99
15-Sep-83	256	39	11.2	9.88	16.97	286.48	4.73	1.28	26.65	56.22	4.35	5.61	22.69	2828.11	1.00
16-Sep-83	257	25	6.02	8.97	6.97	284.83	4.70	1.27	26.48	38.85	0.00	0.00	7.06	2834.17	1.00
17-Sep-83	258	55.8	6.02	8.53	16.43	314.15	5.28	1.42	29.42	55.18	3.63	5.09	21.76	2854.92	1.01
18-Sep-83	259	11.4	5.6	18.53	7.92	296.14	4.92	1.33	27.61	46.30	0.00	0.65	13.77	2867.68	1.02
19-Sep-83	260	105	6.02	26.65	25.67	373.52	6.47	1.72	35.35	61.63	8.14	8.32	27.57	2894.24	1.02
20-Sep-83	261	24.4	6.02	32.83	9.36	362.57	6.25	1.66	34.26	45.84	0.00	0.42	13.36	2906.57	1.03
21-Sep-83	262	29.6	4.5	11.13	23.14	357.91	6.16	1.64	33.79	59.84	6.88	7.42	25.95	2931.49	1.04
22-Sep-83	263	1.8	9.6	41.53	8.38	325.92	5.52	1.48	30.59	45.67	0.00	0.34	13.21	2943.66	1.04
23-Sep-83	264	19.8	6.02	16.66	12.73	315.13	5.30	1.43	29.51	52.04	1.43	3.52	18.94	2961.55	1.05
24-Sep-83	265	3.1	0.8	9.65	9.12	288.72	4.77	1.29	26.87	49.00	0.00	2.00	16.20	2976.71	1.05
25-Sep-83	266	0.6	5	7.34	14.06	262.44	4.25	1.16	24.24	54.24	2.97	4.62	20.92	2996.57	1.06
26-Sep-83	267	15.9	6.1	6.11	6.27	254.10	4.08	1.12	23.41	44.14	0.00	0.00	11.83	3007.34	1.06
27-Sep-83	268	0	3.5	5.63	6.83	230.69	3.61	1.00	21.07	47.28	0.00	1.14	14.65	3020.93	1.07
28-Sep-83	269	3.8	8	5.19	6.42	213.42	3.27	0.92	19.34	47.33	0.00	1.16	14.70	3034.56	1.07
29-Sep-83	270	0	2.3	4.38	4.78	194.08	2.88	0.82	17.41	40.88	0.00	0.00	8.89	3042.37	1.08
30-Sep-83	271	12.6	7.7	4.51	5.47	189.27	2.79	0.80	16.93	46.61	0.00	0.81	14.05	3055.35	1.08

Table 1 TANK MODEL(Phewa Lake calibration)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data

Result of Simulation

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Subsurface ruoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Oct-83	272	0	4.8	5.63	4.24	172.34	2.45	0.71	15.23	39.29	0.00	0.00	7.46	3061.73	1.08
02-Oct-83	273	0	4.1	5.48	3.86	157.11	2.14	0.64	13.71	40.74	0.00	0.00	8.77	3069.41	1.09
03-Oct-83	274	17.6	3.6	4.91	3.96	161.00	2.22	0.65	14.10	41.97	0.00	0.00	9.88	3078.20	1.09
04-Oct-83	275	0	3.6	3.46	3.62	146.90	1.94	0.58	12.69	41.19	0.00	0.00	9.17	3086.28	1.09
05-Oct-83	276	0	4.4	3.16	3.30	134.21	1.68	0.52	11.42	39.84	0.00	0.00	7.96	3093.14	1.09
06-Oct-83	277	0	3.6	2.37	3.02	122.79	1.46	0.46	10.28	37.76	0.00	0.00	6.09	3098.13	1.10
07-Oct-83	278	0	4.3	2.88	2.76	112.51	1.25	0.41	9.25	37.33	0.00	0.00	5.69	3102.73	1.10
08-Oct-83	279	0	6.5	2.70	2.53	103.26	1.07	0.37	8.33	35.66	0.00	0.00	4.19	3105.83	1.10
09-Oct-83	280	13.1	5.7	2.79	2.65	108.03	1.16	0.39	8.80	33.77	0.00	0.00	2.49	3107.22	1.10
10-Oct-83	281	76.6	4.1	4.02	4.35	175.83	2.52	0.73	15.58	41.16	0.00	0.00	9.14	3115.26	1.10
11-Oct-83	282	28.4	5.6	11.39	4.67	188.65	2.77	0.79	16.86	44.78	0.00	0.00	12.40	3126.56	1.11
12-Oct-83	283	47.7	4.1	6.61	6.31	219.48	3.39	0.95	19.95	46.73	0.00	0.86	14.15	3139.61	1.11
13-Oct-83	284	9.9	2	4.14	5.98	209.43	3.19	0.90	18.94	46.55	0.00	0.78	14.00	3152.49	1.12
14-Oct-83	285	0	4.1	3.79	5.65	190.49	2.81	0.80	17.05	46.83	0.00	0.91	14.25	3165.62	1.12
15-Oct-83	286	0	4.1	3.46	4.31	173.44	2.47	0.72	15.34	42.91	0.00	0.00	10.72	3175.22	1.12
16-Oct-83	287	17.9	8	3.16	4.38	176.00	2.52	0.73	15.60	43.69	0.00	0.00	11.42	3185.52	1.13
17-Oct-83	288	1	4.3	3.16	4.01	161.40	2.23	0.66	14.14	38.41	0.00	0.00	6.67	3191.06	1.13
18-Oct-83	289	0	3.8	2.70	3.66	147.26	1.95	0.59	12.73	40.17	0.00	0.00	8.25	3198.18	1.13
19-Oct-83	290	13.6	5.3	2.53	3.69	148.13	1.96	0.59	12.81	40.93	0.00	0.00	8.94	3205.99	1.13
20-Oct-83	291	0.2	3.5	2.53	3.37	135.52	1.71	0.53	11.55	38.24	0.00	0.00	6.52	3211.37	1.14
21-Oct-83	292	0	3.3	2.45	3.09	123.97	1.48	0.47	10.40	38.62	0.00	0.00	6.86	3217.10	1.14
22-Oct-83	293	0	4.3	2.45	2.83	113.57	1.27	0.42	9.36	37.82	0.00	0.00	6.14	3222.09	1.14
23-Oct-83	294	0	3.2	2.30	2.60	104.21	1.08	0.37	8.42	35.80	0.00	0.00	4.32	3225.28	1.14
24-Oct-83	295	3.4	2.5	2.22	2.47	99.19	0.98	0.35	7.92	36.20	0.00	0.00	4.68	3228.81	1.14
25-Oct-83	296	0.3	4.1	2.15	2.28	91.57	0.83	0.31	7.16	36.18	0.00	0.00	4.66	3232.33	1.14
26-Oct-83	297	0	2.3	2.08	2.11	84.42	0.69	0.27	6.44	33.86	0.00	0.00	2.57	3233.76	1.14
27-Oct-83	298	0	4.3	2.08	1.94	77.97	0.56	0.24	5.80	34.78	0.00	0.00	3.40	3236.02	1.15
28-Oct-83	299	0	3.5	2.08	1.80	72.18	0.44	0.21	5.22	32.30	0.00	0.00	1.17	3236.04	1.15
29-Oct-83	300	0	1.6	1.94	1.67	66.96	0.34	0.18	4.70	32.33	0.00	0.00	1.19	3236.09	1.15
30-Oct-83	301	0	3.8	1.88	1.55	62.26	0.25	0.16	4.23	33.76	0.00	0.00	2.48	3237.43	1.15
31-Oct-83	302	6	4.2	1.88	1.60	64.04	0.28	0.17	4.40	31.88	0.00	0.00	0.79	3237.07	1.15

Table 1 TANK MODEL(Phewa Lake calibration)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data — *Surface runoff tank* — Result of Simulation — *Subsurface ruoff tank* — *Base runoff tank*

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Tank storage capacity (mm)	Storm rainfall runoff	Rainfall runoff	Subsurface percolation	Tank storage capacity	Rapid runoff	Subsurface runoff	Subsurface percolation	Tank storage capacity	runoff
01-Nov-83	303	0	2.4	1.81	1.49	59.63	0.19	0.15	3.96	30.85	0.00	0.00	0.00	3235.93	1.15
02-Nov-83	304	0	3.7	1.81	1.39	55.67	0.11	0.13	3.57	32.02	0.00	0.00	0.92	3235.70	1.15
03-Nov-83	305	0	2.2	1.75	1.30	52.10	0.04	0.11	3.21	30.61	0.00	0.00	0.00	3234.55	1.15
04-Nov-83	306	0	4.8	1.69	1.24	48.89	0.00	0.09	2.89	31.30	0.00	0.00	0.27	3233.68	1.14
05-Nov-83	307	0	1.9	1.75	1.22	46.00	0.00	0.08	2.60	28.83	0.00	0.00	0.00	3232.53	1.14
06-Nov-83	308	0	3.2	1.69	1.21	43.40	0.00	0.07	2.34	29.27	0.00	0.00	0.00	3231.39	1.14
07-Nov-83	309	0	3.7	1.63	1.20	41.06	0.00	0.06	2.11	26.18	0.00	0.00	0.00	3230.24	1.14
08-Nov-83	310	0	3.3	1.57	1.19	38.96	0.00	0.04	1.90	26.37	0.00	0.00	0.00	3229.10	1.14
09-Nov-83	311	0	2.8	1.57	1.18	37.06	0.00	0.04	1.71	24.78	0.00	0.00	0.00	3227.96	1.14
10-Nov-83	312	0	3.2	1.52	1.17	35.35	0.00	0.03	1.54	23.51	0.00	0.00	0.00	3226.81	1.14
11-Nov-83	313	0	2.6	1.47	1.16	33.82	0.00	0.02	1.38	21.70	0.00	0.00	0.00	3225.67	1.14
12-Nov-83	314	0	4.1	1.47	1.15	32.44	0.00	0.01	1.24	20.34	0.00	0.00	0.00	3224.53	1.14
13-Nov-83	315	0	2.3	1.41	1.15	31.19	0.00	0.01	1.12	17.36	0.00	0.00	0.00	3223.39	1.14
14-Nov-83	316	0	3.7	1.41	1.14	30.07	0.00	0.00	1.01	16.07	0.00	0.00	0.00	3222.25	1.14
15-Nov-83	317	0	2.8	1.41	1.14	29.07	0.00	0.00	0.91	13.27	0.00	0.00	0.00	3221.11	1.14
16-Nov-83	318	0	0.9	1.41	1.14	28.16	0.00	0.00	0.82	11.29	0.00	0.00	0.00	3219.97	1.14
17-Nov-83	319	0	2.5	1.41	1.14	27.34	0.00	0.00	0.73	11.12	0.00	0.00	0.00	3218.83	1.14
18-Nov-83	320	0	3.6	1.41	1.14	26.61	0.00	0.00	0.66	9.28	0.00	0.00	0.00	3217.69	1.14
19-Nov-83	321	0	1.8	1.36	1.14	25.95	0.00	0.00	0.59	6.28	0.00	0.00	0.00	3216.55	1.14
20-Nov-83	322	0	2.3	1.36	1.14	25.35	0.00	0.00	0.54	5.01	0.00	0.00	0.00	3215.41	1.14
21-Nov-83	323	0	3.6	1.36	1.14	24.82	0.00	0.00	0.48	3.20	0.00	0.00	0.00	3214.27	1.14
22-Nov-83	324	0	2.7	1.31	1.14	24.34	0.00	0.00	0.43	3.63	0.00	0.00	0.00	3213.13	1.14
23-Nov-83	325	0	1.3	1.31	1.14	23.90	0.00	0.00	0.39	1.32	0.00	0.00	0.00	3212.00	1.14
24-Nov-83	326	0	2.3	1.31	1.14	23.51	0.00	0.00	0.35	0.37	0.00	0.00	0.00	3210.86	1.14
25-Nov-83	327	0	1.4	1.31	1.14	23.16	0.00	0.00	0.32	0.69	0.00	0.00	0.00	3209.72	1.14
26-Nov-83	328	0	2	1.31	1.14	22.85	0.00	0.00	0.28	0.97	0.00	0.00	0.00	3208.59	1.14
27-Nov-83	329	0	0.9	1.31	1.14	22.56	0.00	0.00	0.26	1.23	0.00	0.00	0.00	3207.45	1.14
28-Nov-83	330	0	4	1.31	1.14	22.30	0.00	0.00	0.23	0.56	0.00	0.00	0.00	3206.31	1.14
29-Nov-83	331	0	1.8	1.26	1.13	22.07	0.00	0.00	0.21	0.77	0.00	0.00	0.00	3205.18	1.13
30-Nov-83	332	0	2.7	1.26	1.13	21.87	0.00	0.00	0.19	0.95	0.00	0.00	0.00	3204.05	1.13

Table 1 TANK MODEL(Phewa Lake calibration)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data

Result of Simulation

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Subsurface runoff tank: Subsurface percolation	Subsurface runoff tank: Tank storage capacity	Subsurface runoff tank: Rapid runoff	Subsurface runoff tank: Subsurface runoff	Subsurface runoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Dec-83	333	0	2.16	1.22	1.13	21.68	0.00	0.00	0.17	1.12	0.00	0.00	0.00	3202.91	1.13
02-Dec-83	334	0	2.16	1.26	1.13	21.51	0.00	0.00	0.15	1.27	0.00	0.00	0.00	3201.78	1.13
03-Dec-83	335	0	2.16	1.22	1.13	21.36	0.00	0.00	0.14	1.41	0.00	0.00	0.00	3200.64	1.13
04-Dec-83	336	0	2.3	1.26	1.13	21.22	0.00	0.00	0.12	1.53	0.00	0.00	0.00	3199.51	1.13
05-Dec-83	337	0	2.5	1.22	1.13	21.10	0.00	0.00	0.11	1.64	0.00	0.00	0.00	3198.38	1.13
06-Dec-83	338	0	2.3	1.22	1.13	20.99	0.00	0.00	0.10	1.74	0.00	0.00	0.00	3197.25	1.13
07-Dec-83	339	0	2.2	1.22	1.13	20.89	0.00	0.00	0.09	1.83	0.00	0.00	0.00	3196.11	1.13
08-Dec-83	340	0	2.3	1.22	1.13	20.80	0.00	0.00	0.08	1.91	0.00	0.00	0.00	3194.98	1.13
09-Dec-83	341	0	2.1	1.17	1.13	20.72	0.00	0.00	0.07	1.98	0.00	0.00	0.00	3193.85	1.13
10-Dec-83	342	0	0.5	1.17	1.13	20.65	0.00	0.00	0.07	2.05	0.00	0.00	0.00	3192.72	1.13
11-Dec-83	343	0	2.1	1.17	1.13	20.59	0.00	0.00	0.06	1.61	0.00	0.00	0.00	3191.59	1.13
12-Dec-83	344	0	2	1.17	1.13	20.53	0.00	0.00	0.05	1.66	0.00	0.00	0.00	3190.46	1.13
13-Dec-83	345	0	2.3	1.17	1.13	20.47	0.00	0.00	0.05	1.71	0.00	0.00	0.00	3189.33	1.13
14-Dec-83	346	0	1.5	1.17	1.13	20.43	0.00	0.00	0.04	1.75	0.00	0.00	0.00	3188.20	1.13
15-Dec-83	347	0	2	1.17	1.13	20.38	0.00	0.00	0.04	0.29	0.00	0.00	0.00	3187.07	1.13
16-Dec-83	348	0	2	1.13	1.13	20.35	0.00	0.00	0.03	0.32	0.00	0.00	0.00	3185.95	1.13
17-Dec-83	349	0	1.9	1.13	1.13	20.31	0.00	0.00	0.03	0.35	0.00	0.00	0.00	3184.82	1.13
18-Dec-83	350	0	1.6	1.13	1.13	20.28	0.00	0.00	0.03	0.38	0.00	0.00	0.00	3183.69	1.13
19-Dec-83	351	0	1.8	1.13	1.13	20.25	0.00	0.00	0.03	0.41	0.00	0.00	0.00	3182.56	1.13
20-Dec-83	352	0	1.7	1.13	1.13	20.23	0.00	0.00	0.02	0.43	0.00	0.00	0.00	3181.44	1.13
21-Dec-83	353	0	2	1.13	1.13	20.20	0.00	0.00	0.02	0.45	0.00	0.00	0.00	3180.31	1.13
22-Dec-83	354	0	1.7	1.13	1.13	20.18	0.00	0.00	0.02	0.47	0.00	0.00	0.00	3179.18	1.13
23-Dec-83	355	0	1.9	1.13	1.13	20.17	0.00	0.00	0.02	0.48	0.00	0.00	0.00	3178.06	1.13
24-Dec-83	356	0	2	1.13	1.12	20.15	0.00	0.00	0.01	0.50	0.00	0.00	0.00	3176.93	1.12
25-Dec-83	357	0	0.2	1.13	1.12	20.13	0.00	0.00	0.01	0.51	0.00	0.00	0.00	3175.81	1.12
26-Dec-83	358	76.8	9.4	1.17	2.40	96.92	0.94	0.33	7.69	8.00	0.00	0.00	0.00	3174.69	1.12
27-Dec-83	359	17.8	4.6	1.22	2.65	107.03	1.14	0.39	8.70	16.71	0.00	0.00	0.00	3173.56	1.12
28-Dec-83	360	0	0.1	1.13	2.43	98.33	0.97	0.34	7.83	19.94	0.00	0.00	0.00	3172.44	1.12
29-Dec-83	361	0	1.7	1.13	2.23	90.49	0.81	0.30	7.05	26.89	0.00	0.00	0.00	3171.32	1.12
30-Dec-83	362	0	1.9	1.13	2.06	83.44	0.67	0.27	6.34	31.53	0.00	0.00	0.48	3170.67	1.12
31-Dec-83	363	0	2	1.13	1.90	77.10	0.54	0.24	5.71	34.86	0.00	0.00	3.48	3173.03	1.12
			Average	3.8265	3.8327										
	Verification value			1.00											

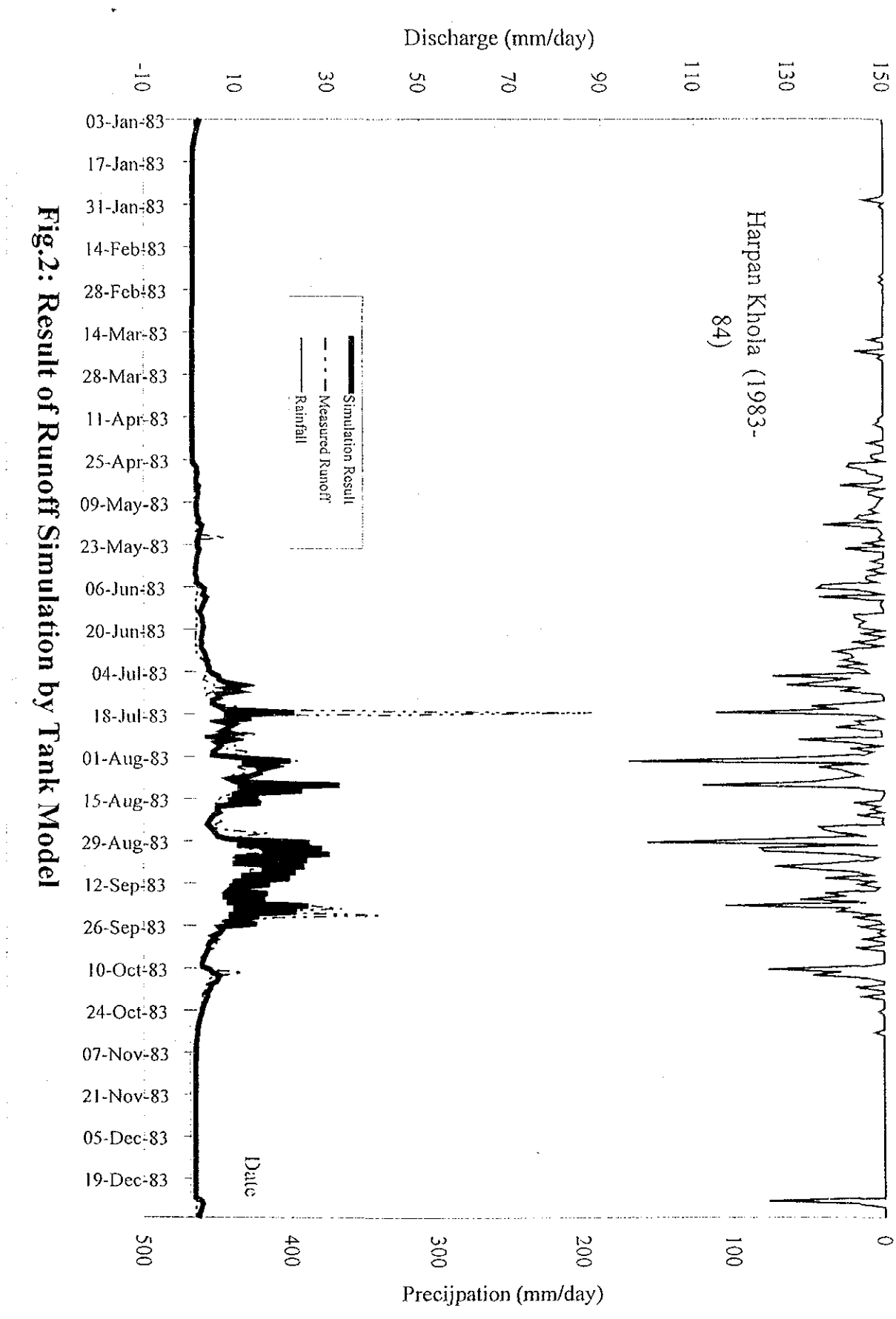

Fig.2: Result of Runoff Simulation by Tank Model

Table 2 TANK MODEL(Phewa Lake Validation)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data **Result of Simulation**

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Surface runoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Jan-84	1	0	1.9	1.08	1.88	100.00	1.00	0.35	7.87	32.87	0.00	0.00	1.68	1501.68	0.53
02-Jan-84	2	0	1.9	1.08	1.69	92.13	0.84	0.31	7.21	36.50	0.00	0.00	4.95	1506.10	0.53
03-Jan-84	3	0	1.9	1.08	1.51	84.92	0.70	0.27	6.49	36.14	0.00	0.00	4.63	1510.19	0.53
04-Jan-84	4	0	1.9	1.08	1.35	78.43	0.57	0.24	5.84	35.46	0.00	0.00	4.01	1513.67	0.54
05-Jan-84	5	0	1.9	1.08	1.20	72.59	0.45	0.21	5.26	34.80	0.00	0.00	3.42	1516.56	0.54
06-Jan-84	6	0	1.9	1.08	1.07	67.33	0.35	0.19	4.73	34.21	0.00	0.00	2.89	1518.91	0.54
07-Jan-84	7	0	1.9	1.08	0.95	62.59	0.25	0.16	4.26	33.68	0.00	0.00	2.41	1520.79	0.54
08-Jan-84	8	0	1.9	1.08	0.85	58.34	0.17	0.14	3.83	33.20	0.00	0.00	1.98	1522.23	0.54
09-Jan-84	9	0	1.9	1.08	0.75	54.50	0.09	0.12	3.45	32.77	0.00	0.00	1.59	1523.28	0.54
10-Jan-84	10	0	1.9	1.08	0.67	51.05	0.02	0.11	3.11	32.38	0.00	0.00	1.24	1523.99	0.54
11-Jan-84	11	0	1.9	1.08	0.63	47.95	0.00	0.09	2.79	32.03	0.00	0.00	0.93	1524.38	0.54
12-Jan-84	12	0	1.9	1.04	0.62	45.15	0.00	0.08	2.52	31.72	0.00	0.00	0.65	1524.49	0.54
13-Jan-84	13	0	1.9	1.04	0.60	42.64	0.00	0.06	2.26	31.44	0.00	0.00	0.39	1524.34	0.54
14-Jan-84	14	0	1.9	1.04	0.59	40.37	0.00	0.05	2.04	31.18	0.00	0.00	0.16	1523.96	0.54
15-Jan-84	15	0	1.9	1.04	0.58	38.34	0.00	0.04	1.83	30.95	0.00	0.00	0.00	1523.42	0.54
16-Jan-84	16	0	1.9	1.04	0.57	36.50	0.00	0.03	1.65	30.70	0.00	0.00	0.00	1522.88	0.54
17-Jan-84	17	47.1	1.9	1.08	1.44	81.95	0.64	0.26	6.20	35.00	0.00	0.00	3.60	1525.94	0.54
18-Jan-84	18	0.7	1.9	1.04	1.30	76.46	0.53	0.23	5.65	35.15	0.00	0.00	3.73	1529.13	0.54
19-Jan-84	19	0	1.9	1.04	1.16	70.81	0.42	0.20	5.08	34.60	0.00	0.00	3.24	1531.83	0.54
20-Jan-84	20	0	1.9	1.04	1.04	65.73	0.31	0.18	4.57	34.03	0.00	0.00	2.73	1534.01	0.54
21-Jan-84	21	0	1.9	1.04	0.92	61.16	0.22	0.16	4.12	33.52	0.00	0.00	2.27	1535.74	0.54
22-Jan-84	22	0	1.9	1.04	0.82	57.04	0.14	0.14	3.70	33.06	0.00	0.00	1.85	1537.04	0.54
23-Jan-84	23	0	1.9	1.04	0.73	53.34	0.07	0.12	3.33	32.64	0.00	0.00	1.48	1537.98	0.54
24-Jan-84	24	0	1.9	1.04	0.64	50.00	0.00	0.10	3.00	32.26	0.00	0.00	1.14	1538.57	0.54
25-Jan-84	25	0	1.9	1.04	0.63	47.00	0.00	0.09	2.70	31.93	0.00	0.00	0.83	1538.86	0.54
26-Jan-84	26	0	1.9	1.04	0.62	44.30	0.00	0.07	2.43	31.62	0.00	0.00	0.56	1538.87	0.54
27-Jan-84	27	0	1.9	1.04	0.60	41.87	0.00	0.06	2.19	31.35	0.00	0.00	0.31	1538.64	0.54
28-Jan-84	28	0	1.9	1.04	0.59	39.69	0.00	0.05	1.97	31.10	0.00	0.00	0.09	1538.19	0.54
29-Jan-84	29	0	1.9	1.04	0.58	37.72	0.00	0.04	1.77	30.88	0.00	0.00	0.00	1537.65	0.54
30-Jan-84	30	0	1.9	1.04	0.57	35.95	0.00	0.03	1.59	30.58	0.00	0.00	0.00	1537.10	0.54
31-Jan-84	31	0	1.9	1.04	0.57	34.35	0.00	0.02	1.44	30.11	0.00	0.00	0.00	1536.56	0.54

Table 2 TANK MODEL(Phewa Lake Validation)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data **Result of Simulation**

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Surface runoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Feb-84	32	0	2.8	1.04	0.56	32.92	0.00	0.01	1.29	29.50	0.00	0.00	0.00	1536.02	0.54
02-Feb-84	33	0	2.8	1.04	0.55	31.62	0.00	0.01	1.16	27.87	0.00	0.00	0.00	1535.47	0.54
03-Feb-84	34	0	2.8	1.04	0.55	30.46	0.00	0.00	1.05	26.11	0.00	0.00	0.00	1534.93	0.54
04-Feb-84	35	0	2.8	1.00	0.54	29.42	0.00	0.00	0.94	24.25	0.00	0.00	0.00	1534.38	0.54
05-Feb-84	36	0	2.8	1.00	0.54	28.47	0.00	0.00	0.85	22.30	0.00	0.00	0.00	1533.84	0.54
06-Feb-84	37	0	2.8	1.00	0.54	27.63	0.00	0.00	0.76	20.26	0.00	0.00	0.00	1533.30	0.54
07-Feb-84	38	0	2.8	1.00	0.54	26.86	0.00	0.00	0.69	18.15	0.00	0.00	0.00	1532.76	0.54
08-Feb-84	39	0	2.8	1.00	0.54	26.18	0.00	0.00	0.62	15.97	0.00	0.00	0.00	1532.21	0.54
09-Feb-84	40	0	2.8	1.04	0.54	25.56	0.00	0.00	0.56	13.72	0.00	0.00	0.00	1531.67	0.54
10-Feb-84	41	0	2.8	1.00	0.54	25.00	0.00	0.00	0.50	11.42	0.00	0.00	0.00	1531.13	0.54
11-Feb-84	42	11.1	2.8	1.00	0.57	35.60	0.00	0.03	1.56	10.18	0.00	0.00	0.00	1530.59	0.54
12-Feb-84	43	0	2.8	1.00	0.56	34.04	0.00	0.02	1.40	8.79	0.00	0.00	0.00	1530.04	0.54
13-Feb-84	44	0	2.8	1.00	0.55	32.64	0.00	0.01	1.26	7.25	0.00	0.00	0.00	1529.50	0.54
14-Feb-84	45	0	2.8	1.00	0.55	31.37	0.00	0.01	1.14	5.59	0.00	0.00	0.00	1528.96	0.54
15-Feb-84	46	0	2.8	0.96	0.54	30.24	0.00	0.00	1.02	3.81	0.00	0.00	0.00	1528.42	0.54
16-Feb-84	47	0	2.8	0.96	0.54	29.21	0.00	0.00	0.92	1.93	0.00	0.00	0.00	1527.88	0.54
17-Feb-84	48	0	2.8	0.96	0.54	28.29	0.00	0.00	0.83	2.76	0.00	0.00	0.00	1527.34	0.54
18-Feb-84	49	0	2.8	0.93	0.54	27.46	0.00	0.00	0.75	3.51	0.00	0.00	0.00	1526.80	0.54
19-Feb-84	50	0	2.8	0.93	0.54	26.72	0.00	0.00	0.67	1.38	0.00	0.00	0.00	1526.26	0.54
20-Feb-84	51	6.7	2.8	1.00	0.55	32.75	0.00	0.01	1.27	2.66	0.00	0.00	0.00	1525.72	0.54
21-Feb-84	52	0	2.8	0.96	0.55	31.47	0.00	0.01	1.15	3.80	0.00	0.00	0.00	1525.18	0.54
22-Feb-84	53	0	2.8	0.93	0.54	30.32	0.00	0.00	1.03	2.04	0.00	0.00	0.00	1524.64	0.54
23-Feb-84	54	0	2.8	0.93	0.54	29.29	0.00	0.00	0.93	2.97	0.00	0.00	0.00	1524.10	0.54
24-Feb-84	55	0	2.8	0.93	0.54	28.36	0.00	0.00	0.84	1.00	0.00	0.00	0.00	1523.56	0.54
25-Feb-84	56	0	2.8	0.89	0.54	27.53	0.00	0.00	0.75	1.75	0.00	0.00	0.00	1523.02	0.54
26-Feb-84	57	0	2.8	0.89	0.54	26.77	0.00	0.00	0.68	2.43	0.00	0.00	0.00	1522.48	0.54
27-Feb-84	58	0	2.8	0.89	0.54	26.10	0.00	0.00	0.61	3.04	0.00	0.00	0.00	1521.94	0.54
28-Feb-84	59	0	2.8	0.89	0.54	25.49	0.00	0.00	0.55	0.79	0.00	0.00	0.00	1521.40	0.54
29-Feb-84	60	0	2.8	0.89	0.54	24.94	0.00	0.00	0.49	1.28	0.00	0.00	0.00	1520.86	0.54

Table 2 TANK MODEL(Phewa Lake Validation)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data **Result of Simulation**

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Surface runoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Mar-84	61	0	4.1	0.89	0.54	24.44	0.00	0.00	0.44	1.73	0.00	0.00	0.00	1520.32	0.54
02-Mar-84	62	0	4.1	0.89	0.54	24.00	0.00	0.00	0.40	2.13	0.00	0.00	0.00	1519.79	0.54
03-Mar-84	63	0	4.1	0.89	0.54	23.60	0.00	0.00	0.36	2.49	0.00	0.00	0.00	1519.25	0.54
04-Mar-84	64	0	4.1	0.89	0.54	23.24	0.00	0.00	0.32	2.81	0.00	0.00	0.00	1518.71	0.54
05-Mar-84	65	0	4.1	0.89	0.54	22.92	0.00	0.00	0.29	3.10	0.00	0.00	0.00	1518.17	0.54
06-Mar-84	66	0	4.1	0.89	0.54	22.62	0.00	0.00	0.26	3.37	0.00	0.00	0.00	1517.64	0.54
07-Mar-84	67	0	4.1	0.89	0.54	22.36	0.00	0.00	0.24	3.60	0.00	0.00	0.00	1517.10	0.54
08-Mar-84	68	0	4.1	0.89	0.54	22.13	0.00	0.00	0.21	3.81	0.00	0.00	0.00	1516.56	0.54
09-Mar-84	69	0	4.1	0.89	0.54	21.91	0.00	0.00	0.19	4.01	0.00	0.00	0.00	1516.02	0.54
10-Mar-84	70	0	4.1	0.89	0.54	21.72	0.00	0.00	0.17	4.18	0.00	0.00	0.00	1515.49	0.54
11-Mar-84	71	0	4.1	0.89	0.54	21.55	0.00	0.00	0.15	0.23	0.00	0.00	0.00	1514.95	0.54
12-Mar-84	72	0.2	4.1	0.89	0.54	21.59	0.00	0.00	0.16	0.39	0.00	0.00	0.00	1514.42	0.54
13-Mar-84	73	0	4.1	0.89	0.54	21.44	0.00	0.00	0.14	0.54	0.00	0.00	0.00	1513.88	0.54
14-Mar-84	74	0	4.1	0.89	0.54	21.29	0.00	0.00	0.13	0.66	0.00	0.00	0.00	1513.34	0.54
15-Mar-84	75	0	4.1	0.89	0.54	21.16	0.00	0.00	0.12	0.78	0.00	0.00	0.00	1512.81	0.54
16-Mar-84	76	0	4.1	0.89	0.54	21.05	0.00	0.00	0.10	0.89	0.00	0.00	0.00	1512.27	0.54
17-Mar-84	77	0	4.1	0.89	0.54	20.94	0.00	0.00	0.09	0.98	0.00	0.00	0.00	1511.74	0.54
18-Mar-84	78	0	4.1	0.89	0.53	20.85	0.00	0.00	0.08	1.06	0.00	0.00	0.00	1511.20	0.53
19-Mar-84	79	0	4.1	0.85	0.53	20.76	0.00	0.00	0.08	1.14	0.00	0.00	0.00	1510.67	0.53
20-Mar-84	80	0	4.1	0.85	0.53	20.69	0.00	0.00	0.07	1.21	0.00	0.00	0.00	1510.13	0.53
21-Mar-84	81	0	4.1	0.89	0.53	20.62	0.00	0.00	0.06	1.27	0.00	0.00	0.00	1509.60	0.53
22-Mar-84	82	0	4.1	0.85	0.53	20.56	0.00	0.00	0.06	1.33	0.00	0.00	0.00	1509.06	0.53
23-Mar-84	83	0	4.1	0.85	0.53	20.50	0.00	0.00	0.05	1.38	0.00	0.00	0.00	1508.53	0.53
24-Mar-84	84	0	4.1	0.85	0.53	20.45	0.00	0.00	0.05	1.42	0.00	0.00	0.00	1507.99	0.53
25-Mar-84	85	0	4.1	0.85	0.53	20.41	0.00	0.00	0.04	1.46	0.00	0.00	0.00	1507.46	0.53
26-Mar-84	86	0	4.1	0.85	0.53	20.36	0.00	0.00	0.04	1.50	0.00	0.00	0.00	1506.93	0.53
27-Mar-84	87	10.2	4.1	0.89	0.54	30.53	0.00	0.00	1.05	2.55	0.00	0.00	0.00	1506.39	0.53
28-Mar-84	88	0	4.1	0.85	0.53	29.48	0.00	0.00	0.95	3.50	0.00	0.00	0.00	1505.86	0.53
29-Mar-84	89	0	4.1	0.85	0.53	28.53	0.00	0.00	0.85	4.35	0.00	0.00	0.00	1505.33	0.53
30-Mar-84	90	0	4.1	0.85	0.53	27.68	0.00	0.00	0.77	1.02	0.00	0.00	0.00	1504.79	0.53
31-Mar-84	91	1	4.1	0.85	0.53	27.91	0.00	0.00	0.79	1.81	0.00	0.00	0.00	1504.26	0.53

Table 2 TANK MODEL(Phewa Lake Validation)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data **Result of Simulation**

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Surface runoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Apr-84	92	25.1	5	0.93	0.69	52.22	0.04	0.11	3.22	5.03	0.00	0.00	0.00	1503.73	0.53
02-Apr-84	93	13.2	5	0.93	0.94	62.20	0.24	0.16	4.22	4.25	0.00	0.00	0.00	1503.20	0.53
03-Apr-84	94	0	5	0.85	0.83	57.98	0.16	0.14	3.80	8.05	0.00	0.00	0.00	1502.66	0.53
04-Apr-84	95	0	5	0.85	0.74	54.18	0.08	0.12	3.42	6.47	0.00	0.00	0.00	1502.13	0.53
05-Apr-84	96	0	5	0.85	0.65	50.76	0.02	0.10	3.08	4.54	0.00	0.00	0.00	1501.60	0.53
06-Apr-84	97	0	5	0.85	0.62	47.68	0.00	0.09	2.77	7.31	0.00	0.00	0.00	1501.07	0.53
07-Apr-84	98	0	5	0.85	0.61	44.92	0.00	0.07	2.49	4.80	0.00	0.00	0.00	1500.54	0.53
08-Apr-84	99	0	5	0.85	0.59	42.42	0.00	0.06	2.24	7.05	0.00	0.00	0.00	1500.01	0.53
09-Apr-84	100	0	5	0.85	0.58	40.18	0.00	0.05	2.02	4.06	0.00	0.00	0.00	1499.48	0.53
10-Apr-84	101	0	5	0.89	0.57	38.16	0.00	0.04	1.82	5.88	0.00	0.00	0.00	1498.94	0.53
11-Apr-84	102	0.4	5	0.85	0.56	36.75	0.00	0.03	1.67	2.55	0.00	0.00	0.00	1498.41	0.53
12-Apr-84	103	0	5	0.82	0.56	35.07	0.00	0.03	1.51	4.06	0.00	0.00	0.00	1497.88	0.53
13-Apr-84	104	0	5	0.82	0.55	33.57	0.00	0.02	1.36	5.42	0.00	0.00	0.00	1497.35	0.53
14-Apr-84	105	0	5	0.82	0.54	32.21	0.00	0.01	1.22	1.64	0.00	0.00	0.00	1496.82	0.53
15-Apr-84	106	0	5	0.82	0.53	30.99	0.00	0.00	1.10	2.74	0.00	0.00	0.00	1496.29	0.53
16-Apr-84	107	0	5	0.82	0.53	29.89	0.00	0.00	0.99	3.73	0.00	0.00	0.00	1495.76	0.53
17-Apr-84	108	0	5	0.82	0.53	28.90	0.00	0.00	0.89	4.62	0.00	0.00	0.00	1495.23	0.53
18-Apr-84	109	18.7	5	0.82	0.61	46.71	0.00	0.08	2.67	7.29	0.00	0.00	0.00	1494.71	0.53
19-Apr-84	110	0	5	0.82	0.60	44.04	0.00	0.07	2.40	4.69	0.00	0.00	0.00	1494.18	0.53
20-Apr-84	111	0	5	0.82	0.59	41.64	0.00	0.06	2.16	6.86	0.00	0.00	0.00	1493.65	0.53
21-Apr-84	112	0	5	0.82	0.58	39.47	0.00	0.05	1.95	3.80	0.00	0.00	0.00	1493.12	0.53
22-Apr-84	113	0	5	0.82	0.57	37.52	0.00	0.04	1.75	5.55	0.00	0.00	0.00	1492.59	0.53
23-Apr-84	114	2.2	5	0.93	0.57	37.97	0.00	0.04	1.80	2.35	0.00	0.00	0.00	1492.06	0.53
24-Apr-84	115	0.3	5	0.85	0.56	36.47	0.00	0.03	1.65	4.00	0.00	0.00	0.00	1491.53	0.53
25-Apr-84	116	13.3	5	0.85	0.62	48.13	0.00	0.09	2.81	6.81	0.00	0.00	0.00	1491.01	0.53
26-Apr-84	117	0	5	0.85	0.60	45.31	0.00	0.08	2.53	4.34	0.00	0.00	0.00	1490.48	0.53
27-Apr-84	118	9.8	5	0.93	0.69	52.58	0.05	0.11	3.26	7.60	0.00	0.00	0.00	1489.95	0.53
28-Apr-84	119	0	5	1.04	0.62	49.32	0.00	0.10	2.93	5.53	0.00	0.00	0.00	1489.42	0.53
29-Apr-84	120	32.4	5	1.17	1.35	78.79	0.58	0.24	5.88	6.41	0.00	0.00	0.00	1488.90	0.53
30-Apr-84	121	3.7	5	1.04	1.29	76.61	0.53	0.23	5.66	7.08	0.00	0.00	0.00	1488.37	0.53

Table 2 TANK MODEL(Phewa Lake Validation)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data **Result of Simulation**

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Surface runoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-May-84	122	2.7	5	1.00	1.22	73.65	0.47	0.22	5.37	7.44	0.00	0.00	0.00	1487.84	0.53
02-May-84	123	2.9	5.8	0.96	1.16	71.19	0.42	0.21	5.12	7.56	0.00	0.00	0.00	1487.31	0.53
03-May-84	124	0	5.6	0.93	1.03	66.07	0.32	0.18	4.61	6.37	0.00	0.00	0.00	1486.79	0.53
04-May-84	125	31.7	9.3	0.96	1.71	93.16	0.86	0.32	7.32	8.08	0.00	0.00	0.00	1486.26	0.53
05-May-84	126	1.9	5.5	1.04	1.57	87.75	0.75	0.29	6.77	14.86	0.00	0.00	0.00	1485.74	0.53
06-May-84	127	14.8	4.2	1.26	1.77	95.77	0.92	0.33	7.58	16.93	0.00	0.00	0.00	1485.21	0.53
07-May-84	128	35.9	5	1.13	2.48	124.09	1.48	0.47	10.41	23.14	0.00	0.00	0.00	1484.68	0.53
08-May-84	129	19.8	5.3	1.04	2.71	133.48	1.67	0.52	11.35	29.49	0.00	0.00	0.00	1484.16	0.53
09-May-84	130	102.3	5	2.79	4.99	224.44	3.49	0.97	20.44	44.63	0.00	0.00	12.27	1495.90	0.53
10-May-84	131	5.9	5	1.47	5.31	209.89	3.20	0.90	18.99	46.35	0.00	0.68	13.82	1509.19	0.53
11-May-84	132	0	4	1.17	4.16	190.90	2.82	0.80	17.09	43.95	0.00	0.00	11.65	1520.31	0.54
12-May-84	133	0	3.9	1.13	3.74	173.81	2.48	0.72	15.38	43.68	0.00	0.00	11.41	1531.18	0.54
13-May-84	134	45.9	9.2	1.36	5.41	204.33	3.09	0.87	18.43	46.80	0.00	0.90	14.22	1544.86	0.55
14-May-84	135	2.2	3	1.31	4.10	188.10	2.76	0.79	16.81	39.29	0.00	0.00	7.46	1551.77	0.55
15-May-84	136	2.7	3.6	1.26	3.75	173.99	2.48	0.72	15.40	44.23	0.00	0.00	11.91	1563.13	0.55
16-May-84	137	3.7	6.8	1.31	3.46	162.29	2.25	0.66	14.23	42.95	0.00	0.00	10.76	1573.33	0.56
17-May-84	138	24.8	10.1	1.17	3.73	172.86	2.46	0.71	15.29	40.68	0.00	0.00	8.71	1581.49	0.56
18-May-84	139	0	4.3	1.08	3.36	157.57	2.15	0.64	13.76	35.63	0.00	0.00	4.16	1585.09	0.56
19-May-84	140	0.2	5.8	1.04	3.01	144.02	1.88	0.57	12.40	39.56	0.00	0.00	7.71	1592.24	0.56
20-May-84	141	0	5	1.04	2.71	131.62	1.63	0.51	11.16	37.22	0.00	0.00	5.60	1597.27	0.57
21-May-84	142	11.4	5	1.04	2.71	131.85	1.64	0.51	11.19	37.81	0.00	0.00	6.13	1602.83	0.57
22-May-84	143	19	11	1.00	2.91	139.67	1.79	0.55	11.97	38.65	0.00	0.00	6.88	1609.15	0.57
23-May-84	144	36.7	13.7	1.04	3.53	164.40	2.29	0.67	14.44	35.20	0.00	0.00	3.78	1612.36	0.57
24-May-84	145	0	7.4	1.04	3.17	149.96	2.00	0.60	13.00	30.72	0.00	0.00	0.00	1611.79	0.57
25-May-84	146	19.2	10.8	1.26	3.33	156.17	2.12	0.63	13.62	36.93	0.00	0.00	5.34	1616.56	0.57
26-May-84	147	34.3	5	1.63	3.85	176.85	2.54	0.73	15.68	36.48	0.00	0.00	4.93	1620.92	0.57
27-May-84	148	0	3.1	1.36	3.46	161.16	2.22	0.66	14.12	40.66	0.00	0.00	8.70	1629.04	0.58
28-May-84	149	16	1.5	1.41	3.51	163.05	2.26	0.67	14.30	43.17	0.00	0.00	10.95	1639.42	0.58
29-May-84	150	19.4	6.2	3.57	3.90	168.14	2.36	0.69	14.81	45.53	0.00	0.27	13.08	1651.92	0.58
30-May-84	151	3.2	5	1.75	3.35	156.53	2.13	0.63	13.65	39.64	0.00	0.00	7.78	1659.11	0.59
31-May-84	152	3.6	5	2.45	3.10	146.48	1.93	0.58	12.65	39.51	0.00	0.00	7.66	1666.18	0.59

Table 2 TANK MODEL(Phewa Lake Validation)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data **Result of Simulation**

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Surface runoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Jun-84	153	0	5.9	1.57	2.79	133.83	1.68	0.52	11.38	38.23	0.00	0.00	6.51	1672.10	0.59
02-Jun-84	154	49	14.8	2.08	3.73	171.45	2.43	0.71	15.14	40.97	0.00	0.00	8.97	1680.48	0.59
03-Jun-84	155	70	4.7	3.46	5.10	226.30	3.53	0.98	20.63	37.83	0.00	0.00	6.14	1686.03	0.60
04-Jun-84	156	15.8	4.7	2.70	6.05	221.47	3.43	0.96	20.15	47.13	0.00	1.06	14.52	1699.95	0.60
05-Jun-84	157	118.3	4.7	10.87	18.12	319.62	5.39	1.45	29.96	56.81	4.77	5.91	23.23	1722.58	0.61
06-Jun-84	158	9	4.7	2.45	7.47	298.66	4.97	1.34	27.87	46.07	0.00	0.54	13.57	1735.54	0.61
07-Jun-84	159	0.4	6.4	11.39	11.62	271.20	4.42	1.21	25.12	52.39	1.67	3.69	19.25	1754.17	0.62
08-Jun-84	160	0.5	4.1	4.02	5.64	246.58	3.93	1.08	22.66	44.03	0.00	0.00	11.73	1765.28	0.62
09-Jun-84	161	0	1.2	3.06	6.88	223.92	3.48	0.97	20.39	48.59	0.00	1.80	15.84	1780.49	0.63
10-Jun-84	162	95.2	4.7	13.08	18.62	298.73	4.97	1.34	27.87	57.63	5.34	6.32	23.97	1803.83	0.64
11-Jun-84	163	13	4.7	5.05	6.59	283.85	4.68	1.27	26.39	43.69	0.00	0.00	11.42	1814.61	0.64
12-Jun-84	164	16.3	6.1	4.91	12.38	273.77	4.48	1.22	25.38	52.95	2.06	3.97	19.75	1833.72	0.65
13-Jun-84	165	19.6	2.4	4.38	6.63	267.99	4.36	1.19	24.80	45.86	0.00	0.43	13.37	1846.44	0.65
14-Jun-84	166	0	4.2	3.79	10.46	243.19	3.86	1.07	22.32	51.98	1.38	3.49	18.88	1864.67	0.66
15-Jun-84	167	0	4.7	3.26	5.04	220.87	3.42	0.95	20.09	44.11	0.00	0.00	11.80	1875.81	0.66
16-Jun-84	168	112.7	4.7	3.57	18.21	313.49	5.27	1.42	29.35	56.96	4.87	5.98	23.36	1898.51	0.67
17-Jun-84	169	18	4.7	0.82	7.71	302.14	5.04	1.36	28.21	46.26	0.00	0.63	13.73	1911.57	0.68
18-Jun-84	170	31.2	4.7	32.23	16.51	305.12	5.10	1.38	28.51	55.71	4.00	5.35	22.24	1933.13	0.68
19-Jun-84	171	0.2	4.7	11.13	6.51	276.81	4.54	1.23	25.68	45.10	0.00	0.05	12.69	1945.14	0.69
20-Jun-84	172	161.5	4.7	37.32	32.67	412.63	7.25	1.91	39.26	66.92	11.65	10.96	32.33	1976.78	0.70
21-Jun-84	173	18	4.7	15.28	9.34	391.37	6.83	1.81	37.14	44.22	0.00	0.00	11.90	1987.98	0.70
22-Jun-84	174	2.2	5.4	11.39	24.49	356.43	6.13	1.63	33.64	61.27	7.89	8.13	27.24	2014.51	0.71
23-Jun-84	175	0.3	8.2	10.62	7.64	323.09	5.46	1.47	30.31	42.92	0.00	0.00	10.73	2024.53	0.72
24-Jun-84	176	4.6	1.2	5.79	11.58	297.38	4.95	1.34	27.74	51.73	1.21	3.36	18.66	2042.47	0.72
25-Jun-84	177	9.5	6.3	5.95	12.91	279.14	4.58	1.25	25.91	53.21	2.25	4.11	19.99	2061.73	0.73
26-Jun-84	178	5.7	1.5	5.63	6.06	258.93	4.18	1.14	23.89	44.46	0.00	0.00	12.11	2073.12	0.73
27-Jun-84	179	1.4	2.8	4.38	10.99	236.43	3.73	1.03	21.64	52.49	1.74	3.74	19.34	2091.73	0.74
28-Jun-84	180	15.1	9.3	6.61	5.77	229.89	3.60	1.00	20.99	45.85	0.00	0.43	13.37	2104.35	0.74
29-Jun-84	181	23.2	8.9	5.33	5.40	232.10	3.64	1.01	21.21	43.97	0.00	0.00	11.67	2115.28	0.75
30-Jun-84	182	12.6	7.6	13.99	5.19	223.49	3.47	0.97	20.35	43.75	0.00	0.00	11.47	2126.00	0.75

Table 2 TANK MODEL(Phewa Lake Validation)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data — **Result of Simulation**

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Surface runoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Jul-84	183	3.6	5.2	13.37	4.77	206.74	3.13	0.88	18.67	43.35	0.00	0.00	11.11	2136.36	0.76
02-Jul-84	184	17.6	7.1	11.39	5.05	205.67	3.11	0.88	18.57	45.60	0.00	0.30	13.14	2148.75	0.76
03-Jul-84	185	15.2	7.8	12.49	4.67	202.30	3.05	0.86	18.23	43.29	0.00	0.00	11.06	2159.05	0.76
04-Jul-84	186	43.2	4	15.62	5.38	227.27	3.55	0.99	20.73	45.16	0.00	0.08	12.74	2171.02	0.77
05-Jul-84	187	53.5	4	83.79	11.44	260.04	4.20	1.15	24.00	52.34	1.64	3.67	19.21	2189.46	0.78
06-Jul-84	188	64	4	28.23	11.83	300.04	5.00	1.35	28.00	51.83	1.28	3.41	18.75	2207.43	0.78
07-Jul-84	189	18.4	4	21.86	11.12	290.44	4.81	1.30	27.04	51.43	1.00	3.22	18.39	2225.04	0.79
08-Jul-84	190	95	4	57.38	21.50	358.39	6.17	1.64	33.84	58.66	6.06	6.83	24.90	2249.15	0.80
09-Jul-84	191	31	4	24.16	11.55	355.55	6.11	1.63	33.56	50.43	0.30	2.71	17.48	2265.84	0.80
10-Jul-84	192	2.4	4.4	15.96	17.92	324.40	5.49	1.47	30.44	56.37	4.46	5.69	22.83	2287.87	0.81
11-Jul-84	193	127	4	29.33	23.60	420.96	7.42	1.95	40.10	59.09	6.36	7.04	25.28	2312.34	0.82
12-Jul-84	194	171.5	4	60.27	39.56	552.36	10.05	2.61	53.24	69.64	13.75	12.32	34.78	2346.30	0.83
13-Jul-84	195	56.8	4	20.14	26.15	555.93	10.12	2.63	53.59	58.39	5.87	6.69	24.65	2370.11	0.84
14-Jul-84	196	41.9	4	16.31	39.32	544.23	9.88	2.57	52.42	69.60	13.72	12.30	34.74	2404.01	0.85
15-Jul-84	197	51.3	4	12.49	24.37	543.11	9.86	2.57	52.31	57.16	5.01	6.08	23.54	2426.70	0.86
16-Jul-84	198	68.4	4	27.70	43.14	559.20	10.18	2.65	53.92	72.45	15.71	13.72	37.30	2463.15	0.87
17-Jul-84	199	4.7	4	13.08	15.82	509.98	9.20	2.40	49.00	50.70	0.49	2.85	17.73	2480.01	0.88
18-Jul-84	200	11.6	6.2	10.37	39.11	472.58	8.45	2.21	45.26	70.88	14.62	12.94	35.89	2515.02	0.89
19-Jul-84	201	18	6.3	8.32	13.36	445.32	7.91	2.08	42.53	49.96	0.00	2.48	17.06	2531.20	0.90
20-Jul-84	202	0	7	7.72	27.20	402.79	7.06	1.86	38.28	62.39	8.68	8.70	28.26	2558.56	0.91
21-Jul-84	203	25.5	7.5	12.78	10.39	390.01	6.80	1.80	37.00	46.77	0.00	0.88	14.19	2571.84	0.91
22-Jul-84	204	48	4	28.23	27.05	401.01	7.02	1.86	38.10	62.29	8.61	8.65	28.16	2599.10	0.92
23-Jul-84	205	9.5	4	15.62	10.64	372.41	6.45	1.71	35.24	48.12	0.00	1.56	15.41	2613.58	0.93
24-Jul-84	206	6	4.2	16.66	22.23	343.17	5.86	1.57	32.32	59.47	6.63	7.23	25.62	2638.28	0.93
25-Jul-84	207	8.2	1.3	10.62	8.11	319.05	5.38	1.45	29.91	45.69	0.00	0.34	13.22	2650.57	0.94
26-Jul-84	208	24	7.9	32.23	22.29	313.15	5.26	1.42	29.31	60.14	7.10	7.57	26.23	2675.85	0.95
27-Jul-84	209	128.3	4	37.32	13.28	412.13	7.24	1.91	39.21	50.56	0.39	2.78	17.60	2692.51	0.95
28-Jul-84	210	8	4	14.62	26.09	380.92	6.62	1.75	36.09	61.88	8.31	8.44	27.79	2719.34	0.96
29-Jul-84	211	92.7	4	27.70	19.37	437.53	7.75	2.04	41.75	55.09	3.56	5.04	21.68	2740.06	0.97
30-Jul-84	212	73.2	4	40.80	32.89	468.97	8.38	2.19	44.90	65.70	10.99	10.35	31.23	2770.32	0.98
31-Jul-84	213	12	4	25.13	14.12	436.08	7.72	2.03	41.61	50.74	0.52	2.87	17.76	2787.11	0.99

Table 2 TANK MODEL(Phewa Lake Validation)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data **Result of Simulation**

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Storm rainfall runoff	Rainfall runoff	Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Rapid runoff	Subsurface runoff	Subsurface percolation	Base runoff tank: Tank storage capacity	runoff
01-Aug-84	214	31	4.1	18.15	32.35	425.47	7.51	1.98	40.55	66.13	11.29	10.57	31.62	2817.74	1.00
02-Aug-84	215	0	4.1	12.49	9.50	384.92	6.70	1.77	36.49	45.04	0.00	0.02	12.64	2829.38	1.00
03-Aug-84	216	19.6	7.2	9.65	27.26	368.03	6.36	1.69	34.80	63.09	9.16	9.04	28.88	2857.26	1.01
04-Aug-84	217	0	4.9	7.34	8.19	333.23	5.66	1.52	31.32	40.13	0.00	0.00	8.22	2864.46	1.01
05-Aug-84	218	28.5	8.7	7.15	20.30	330.40	5.61	1.50	31.04	58.05	5.64	6.53	24.35	2887.80	1.02
06-Aug-84	219	69.5	4.1	10.62	10.46	368.86	6.38	1.69	34.89	47.73	0.00	1.36	15.05	2901.83	1.03
07-Aug-84	220	11	4.1	7.34	22.66	344.98	5.90	1.57	32.50	59.71	6.79	7.35	25.84	2926.64	1.04
08-Aug-84	221	80	4.1	17.39	15.65	392.48	6.85	1.81	37.25	52.87	2.01	3.94	19.68	2945.26	1.04
09-Aug-84	222	1.4	4.1	8.97	19.48	356.63	6.13	1.63	33.66	56.81	4.76	5.90	23.22	2967.47	1.05
10-Aug-84	223	5	4.5	9.19	10.41	327.97	5.56	1.49	30.80	49.61	0.00	2.31	16.75	2983.17	1.06
11-Aug-84	224	3.5	6.9	7.53	14.88	300.67	5.01	1.35	28.07	54.12	2.89	4.56	20.81	3002.92	1.06
12-Aug-84	225	16	6.5	6.61	7.55	288.60	4.77	1.29	26.86	45.83	0.00	0.41	13.34	3015.20	1.07
13-Aug-84	226	56	4.1	10.12	16.78	317.74	5.35	1.44	29.77	55.34	3.74	5.17	21.91	3036.04	1.07
14-Aug-84	227	0	4.1	5.63	8.24	287.97	4.76	1.29	26.80	47.22	0.00	1.11	14.60	3049.56	1.08
15-Aug-84	228	44.5	12	11.66	17.25	305.67	5.11	1.38	28.57	55.98	4.19	5.49	22.48	3070.97	1.09
16-Aug-84	229	1.2	2.7	7.34	6.90	278.31	4.57	1.24	25.83	37.65	0.00	0.00	5.99	3075.87	1.09
17-Aug-84	230	24.6	6.9	7.92	14.98	277.07	4.54	1.24	25.71	54.67	3.27	4.84	21.31	3096.08	1.10
18-Aug-84	231	0.3	0.9	7.53	6.24	251.67	4.03	1.11	23.17	41.53	0.00	0.00	9.47	3104.46	1.10
19-Aug-84	232	7.5	6.1	6.79	11.66	236.00	3.72	1.03	21.60	52.75	1.93	3.88	19.58	3122.94	1.11
20-Aug-84	233	30	4.1	26.13	6.07	244.40	3.89	1.07	22.44	43.71	0.00	0.00	11.44	3133.28	1.11
21-Aug-84	234	35	4.1	11.66	11.13	256.96	4.14	1.13	23.70	51.87	1.31	3.43	18.78	3150.95	1.12
22-Aug-84	235	9	1	18.92	6.76	242.26	3.85	1.06	22.23	46.47	0.00	0.74	13.93	3163.76	1.12
23-Aug-84	236	4.2	4.2	23.22	9.56	224.24	3.48	0.97	20.42	51.23	0.86	3.12	18.21	3180.85	1.13
24-Aug-84	237	46	4.1	38.68	7.64	249.81	4.00	1.10	22.98	47.82	0.00	1.41	15.14	3194.86	1.13
25-Aug-84	238	0	4.1	40.80	7.08	226.83	3.54	0.98	20.68	47.85	0.00	1.43	15.17	3208.90	1.14
26-Aug-84	239	56	4.1	32.83	10.69	262.15	4.24	1.16	24.21	51.37	0.96	3.19	18.34	3226.10	1.14
27-Aug-84	240	4.2	4.1	17.77	7.05	242.13	3.84	1.06	22.21	47.00	0.00	1.00	14.40	3239.36	1.15
28-Aug-84	241	7.2	4.1	22.75	7.29	227.12	3.54	0.99	20.71	48.21	0.00	1.61	15.49	3253.70	1.15
29-Aug-84	242	45	8	12.49	8.98	251.41	4.03	1.11	23.14	50.16	0.11	2.58	17.24	3269.79	1.16
30-Aug-84	243	42.2	4.1	11.93	7.91	270.47	4.41	1.20	25.05	47.27	0.00	1.14	14.65	3283.28	1.16
31-Aug-84	244	26.8	4.1	12.49	12.46	272.22	4.44	1.21	25.22	52.61	1.83	3.81	19.45	3301.57	1.17

Table 2 TANK MODEL(Phewa Lake Validation)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK11	100	TK21	25	TK31	1500

Input Data **Result of Simulation**

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank				Subsurface ruoff tank				Base runoff tank	
						Tank storage capacity (mm)	Storm rainfall runoff	Rainfall runoff	Subsurface percolation	Tank storage capacity	Rapid runoff	Subsurface runoff	Subsurface percolation	Tank storage capacity	runoff
01-Sep-84	245	32	7	11.93	9.16	279.00	4.58	1.24	25.90	49.33	0.00	2.16	16.49	3316.90	1.17
02-Sep-84	246	2.5	5.5	11.39	7.53	255.60	4.11	1.13	23.56	47.23	0.00	1.11	14.61	3330.33	1.18
03-Sep-84	247	10	3.6	10.37	7.69	242.04	3.84	1.06	22.20	48.21	0.00	1.61	15.49	3344.64	1.18
04-Sep-84	248	7.6	5.5	8.32	7.35	227.44	3.55	0.99	20.74	46.26	0.00	1.63	15.53	3358.99	1.19
05-Sep-84	249	8.6	3.6	6.75	5.49	215.29	3.31	0.93	19.53	45.13	0.00	0.06	12.71	3370.51	1.19
06-Sep-84	250	96	3.6	8.97	16.96	291.76	4.84	1.31	27.18	55.93	4.15	5.46	22.43	3391.75	1.20
07-Sep-84	251	32	3.6	48.54	8.94	296.59	4.93	1.33	27.66	47.94	0.00	1.47	15.25	3405.80	1.21
08-Sep-84	252	0.3	3.6	14.30	12.35	269.23	4.38	1.20	24.92	52.55	1.78	3.77	19.39	3423.99	1.21
09-Sep-84	253	17.6	1.9	9.88	8.21	261.90	4.24	1.16	24.19	48.19	0.00	1.59	15.47	3438.24	1.22
10-Sep-84	254	0	8.5	9.88	9.71	237.71	3.75	1.04	21.77	51.00	0.70	3.00	18.00	3455.02	1.22
11-Sep-84	255	26.6	3	12.21	6.14	242.54	3.85	1.06	22.25	43.06	0.00	0.00	10.85	3464.65	1.23
12-Sep-84	256	6.4	19.2	10.62	8.19	226.69	3.53	0.98	20.67	49.87	0.00	2.44	16.99	3480.41	1.23
13-Sep-84	257	78.6	2.1	11.13	7.20	284.62	4.69	1.27	26.46	37.71	0.00	0.00	6.04	3485.22	1.23
14-Sep-84	258	10.2	3.6	11.66	14.59	268.36	4.37	1.19	24.84	54.41	3.08	4.70	21.07	3505.06	1.24
15-Sep-84	259	32.4	3.6	11.39	8.27	275.92	4.52	1.23	25.59	47.54	0.00	1.27	14.89	3518.70	1.25
16-Sep-84	260	33.3	1.1	9.65	14.67	283.63	4.67	1.27	26.36	54.15	2.90	4.57	20.83	3538.29	1.25
17-Sep-84	261	17.8	12.8	12.78	9.78	275.07	4.50	1.23	25.51	50.25	0.17	2.62	17.32	3554.36	1.26
18-Sep-84	262	75.8	3.6	11.66	9.68	325.36	5.51	1.48	30.54	47.86	0.00	1.43	15.18	3568.28	1.26
19-Sep-84	263	81.6	3.6	11.66	27.99	376.42	6.53	1.73	35.64	63.30	9.31	9.15	29.07	3596.08	1.27
20-Sep-84	264	0	3.6	11.66	8.65	340.78	5.82	1.55	32.08	44.25	0.00	0.00	11.93	3606.74	1.28
21-Sep-84	265	0.8	3.6	9.19	19.58	309.50	5.19	1.40	28.95	57.68	5.37	6.34	24.01	3629.47	1.28
22-Sep-84	266	0.7	2.9	8.75	7.17	281.25	4.63	1.26	26.13	44.48	0.00	0.00	12.13	3640.32	1.29
23-Sep-84	267	0	5.2	6.79	12.58	255.13	4.10	1.13	23.51	52.96	2.07	3.98	19.76	3658.79	1.30
24-Sep-84	268	0	4.8	5.63	5.94	231.62	3.63	1.01	21.16	43.10	0.00	0.00	10.89	3668.39	1.30
25-Sep-84	269	0	3.5	5.48	6.14	210.45	3.21	0.90	19.05	46.46	0.00	0.73	13.91	3681.00	1.30
26-Sep-84	270	0	4.7	5.19	5.17	191.41	2.83	0.81	17.14	45.46	0.00	0.23	13.01	3692.71	1.31
27-Sep-84	271	0	4.9	4.64	4.52	174.27	2.49	0.72	15.43	42.94	0.00	0.00	10.75	3702.15	1.31
28-Sep-84	272	0	4.1	4.38	4.13	158.84	2.18	0.64	13.88	41.18	0.00	0.00	9.16	3710.00	1.31
29-Sep-84	273	0	4.2	4.26	3.79	144.96	1.90	0.57	12.50	40.41	0.00	0.00	8.47	3717.16	1.32
30-Sep-84	274	0	4.7	4.02	3.48	132.46	1.65	0.51	11.25	38.99	0.00	0.00	7.19	3723.04	1.32

Table 2 TANK MODEL(Phewa Lake Validation)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data **Result of Simulation**

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Surface runoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Oct-84	275	0	4.3	3.79	3.20	121.21	1.42	0.46	10.12	37.22	0.00	0.00	5.60	3727.32	1.32
02-Oct-84	276	0	4.2	3.57	2.95	111.09	1.22	0.41	9.11	36.43	0.00	0.00	4.89	3730.89	1.32
03-Oct-84	277	0	3	3.26	2.72	101.98	1.04	0.36	8.20	35.54	0.00	0.00	4.09	3733.65	1.32
04-Oct-84	278	0	4.9	3.16	2.52	93.79	0.88	0.32	7.38	35.83	0.00	0.00	4.35	3736.68	1.32
05-Oct-84	279	1.2	5	3.06	2.36	87.61	0.75	0.29	6.76	33.34	0.00	0.00	2.11	3737.47	1.32
06-Oct-84	280	1.4	5	3.06	2.23	82.25	0.64	0.26	6.22	32.46	0.00	0.00	1.31	3737.46	1.32
07-Oct-84	281	0	4.2	2.97	2.07	76.02	0.52	0.23	5.60	31.75	0.00	0.00	0.67	3736.81	1.32
08-Oct-84	282	0	3.7	2.70	1.93	70.42	0.41	0.20	5.04	31.92	0.00	0.00	0.83	3736.31	1.32
09-Oct-84	283	0	3.5	2.62	1.81	65.38	0.31	0.18	4.54	31.93	0.00	0.00	0.84	3735.82	1.32
10-Oct-84	284	0	4.1	2.62	1.69	60.84	0.22	0.15	4.08	31.68	0.00	0.00	0.61	3735.11	1.32
11-Oct-84	285	0	2	2.53	1.59	56.76	0.14	0.13	3.68	30.64	0.00	0.00	0.00	3733.79	1.32
12-Oct-84	286	0	2.9	2.45	1.50	53.08	0.06	0.12	3.31	31.95	0.00	0.00	0.86	3733.32	1.32
13-Oct-84	287	0	4.4	2.45	1.42	49.77	0.00	0.10	2.98	31.17	0.00	0.00	0.16	3732.16	1.32
14-Oct-84	288	0	2.4	2.45	1.40	46.80	0.00	0.08	2.68	29.30	0.00	0.00	0.00	3730.83	1.32
15-Oct-84	289	17	4.9	3.57	1.70	61.12	0.22	0.16	4.11	31.01	0.00	0.00	0.01	3729.52	1.32
16-Oct-84	290	12.6	5.2	2.53	1.91	69.80	0.40	0.20	4.98	31.08	0.00	0.00	0.07	3728.27	1.32
17-Oct-84	291	0	3.7	2.45	1.79	64.82	0.30	0.17	4.48	30.29	0.00	0.00	0.00	3726.95	1.32
18-Oct-84	292	6.6	6.3	2.70	1.84	66.94	0.34	0.18	4.69	31.28	0.00	0.00	0.26	3725.89	1.32
19-Oct-84	293	19	8.7	2.53	2.20	81.25	0.62	0.26	6.12	30.85	0.00	0.00	0.00	3724.57	1.32
20-Oct-84	294	0	2.5	2.70	2.05	75.12	0.50	0.23	5.51	27.67	0.00	0.00	0.00	3723.25	1.32
21-Oct-84	295	0	4.6	2.53	1.91	69.61	0.39	0.20	4.96	30.13	0.00	0.00	0.00	3721.94	1.32
22-Oct-84	296	0	3.9	2.45	1.78	64.65	0.29	0.17	4.46	29.99	0.00	0.00	0.00	3720.62	1.32
23-Oct-84	297	0	2.6	2.45	1.67	60.18	0.20	0.15	4.02	30.11	0.00	0.00	0.00	3719.30	1.32
24-Oct-84	298	0	3.1	2.45	1.57	56.17	0.12	0.13	3.62	31.13	0.00	0.00	0.11	3718.10	1.32
25-Oct-84	299	0	4.6	2.37	1.48	52.55	0.05	0.11	3.25	31.17	0.00	0.00	0.15	3716.93	1.32
26-Oct-84	300	0	2.8	2.37	1.41	49.29	0.00	0.10	2.93	29.35	0.00	0.00	0.00	3715.62	1.32
27-Oct-84	301	0	3.3	2.37	1.40	46.36	0.00	0.08	2.64	29.18	0.00	0.00	0.00	3714.30	1.31
28-Oct-84	302	0	3.7	2.37	1.38	43.73	0.00	0.07	2.37	28.26	0.00	0.00	0.00	3712.99	1.31
29-Oct-84	303	0	5.2	2.15	1.37	41.36	0.00	0.06	2.14	26.69	0.00	0.00	0.00	3711.67	1.31
30-Oct-84	304	0	1.5	2.08	1.36	39.22	0.00	0.05	1.92	23.41	0.00	0.00	0.00	3710.36	1.31
31-Oct-84	305	0	0.7	2.08	1.35	37.30	0.00	0.04	1.73	23.64	0.00	0.00	0.00	3709.04	1.31

Table 2 TANK MODEL(Phewa Lake Validation)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data *Result of Simulation*

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Surface runoff tank: Storm rainfall runoff	Surface runoff tank: Rainfall runoff	Surface runoff tank: Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Subsurface ruoff tank: Rapid runoff	Subsurface ruoff tank: Subsurface runoff	Subsurface ruoff tank: Subsurface percolation	Base runoff tank: Tank storage capacity	Base runoff tank: runoff
01-Nov-84	306	0	3.3	2.08	1.34	35.57	0.00	0.03	1.56	24.50	0.00	0.00	0.00	3707.73	1.31
02-Nov-84	307	0	4	1.94	1.33	34.01	0.00	0.02	1.40	22.60	0.00	0.00	0.00	3706.42	1.31
03-Nov-84	308	0	2.8	1.94	1.32	32.61	0.00	0.01	1.26	19.86	0.00	0.00	0.00	3705.11	1.31
04-Nov-84	309	0	2.7	1.94	1.32	31.35	0.00	0.01	1.13	18.20	0.00	0.00	0.00	3703.80	1.31
05-Nov-84	310	0	3.1	1.81	1.31	30.21	0.00	0.00	1.02	16.52	0.00	0.00	0.00	3702.48	1.31
06-Nov-84	311	0	3.6	1.81	1.31	29.19	0.00	0.00	0.92	14.34	0.00	0.00	0.00	3701.17	1.31
07-Nov-84	312	0	3.2	1.81	1.31	28.27	0.00	0.00	0.83	11.56	0.00	0.00	0.00	3699.86	1.31
08-Nov-84	313	0	3.4	1.81	1.31	27.45	0.00	0.00	0.74	9.11	0.00	0.00	0.00	3698.55	1.31
09-Nov-84	314	0	3.5	1.81	1.31	26.70	0.00	0.00	0.67	6.38	0.00	0.00	0.00	3697.24	1.31
10-Nov-84	315	0	3.7	1.81	1.31	26.03	0.00	0.00	0.60	3.48	0.00	0.00	0.00	3695.94	1.31
11-Nov-84	316	0	3	1.75	1.31	25.43	0.00	0.00	0.54	4.03	0.00	0.00	0.00	3694.63	1.31
12-Nov-84	317	0	3.7	1.75	1.31	24.89	0.00	0.00	0.49	1.51	0.00	0.00	0.00	3693.32	1.31
13-Nov-84	318	0	2.4	1.75	1.31	24.40	0.00	0.00	0.44	1.95	0.00	0.00	0.00	3692.01	1.31
14-Nov-84	319	0	3.6	1.75	1.31	23.96	0.00	0.00	0.40	2.35	0.00	0.00	0.00	3690.70	1.31
15-Nov-84	320	0	2.3	1.75	1.31	23.56	0.00	0.00	0.36	2.71	0.00	0.00	0.00	3689.40	1.31
16-Nov-84	321	0	2.4	1.75	1.31	23.21	0.00	0.00	0.32	0.73	0.00	0.00	0.00	3688.09	1.31
17-Nov-84	322	0	4.1	1.75	1.31	22.88	0.00	0.00	0.29	1.01	0.00	0.00	0.00	3686.79	1.31
18-Nov-84	323	0	3	1.75	1.30	22.60	0.00	0.00	0.26	1.27	0.00	0.00	0.00	3685.48	1.30
19-Nov-84	324	0	2	1.75	1.30	22.34	0.00	0.00	0.23	1.51	0.00	0.00	0.00	3684.18	1.30
20-Nov-84	325	0	3.1	1.75	1.30	22.10	0.00	0.00	0.21	1.72	0.00	0.00	0.00	3682.87	1.30
21-Nov-84	326	0	2.7	1.69	1.30	21.89	0.00	0.00	0.19	1.91	0.00	0.00	0.00	3681.57	1.30
22-Nov-84	327	0	4.4	1.69	1.30	21.70	0.00	0.00	0.17	2.08	0.00	0.00	0.00	3680.27	1.30
23-Nov-84	328	0	2.9	1.63	1.30	21.53	0.00	0.00	0.15	2.23	0.00	0.00	0.00	3678.96	1.30
24-Nov-84	329	0	3.1	1.63	1.30	21.38	0.00	0.00	0.14	2.37	0.00	0.00	0.00	3677.66	1.30
25-Nov-84	330	0	4.1	1.63	1.30	21.24	0.00	0.00	0.12	2.49	0.00	0.00	0.00	3676.35	1.30
26-Nov-84	331	0	1.4	1.63	1.30	21.12	0.00	0.00	0.11	2.61	0.00	0.00	0.00	3675.05	1.30
27-Nov-84	332	0	0.9	1.63	1.30	21.01	0.00	0.00	0.10	1.31	0.00	0.00	0.00	3673.76	1.30
28-Nov-84	333	0	3.7	1.63	1.30	20.91	0.00	0.00	0.09	0.50	0.00	0.00	0.00	3672.46	1.30
29-Nov-84	334	0	3.6	1.57	1.30	20.81	0.00	0.00	0.08	0.58	0.00	0.00	0.00	3671.16	1.30
30-Nov-84	335	0	2.8	1.57	1.30	20.73	0.00	0.00	0.07	0.65	0.00	0.00	0.00	3669.86	1.30

Table 2 TANK MODEL(Phewa Lake Validation)

Component of the model

Surface runoff tank		Subsurface runoff tank		Base runoff tank	
P1(P1O)	20	P1(P2O)	31	P1(P3O)	100
A1(A1O)	0.1	A1(A2O)	0.9	A1(A3O)	0.000354
P2(P1T)	30	P2(P2T)	45	P2(P3T)	
A2(A1T)	0.005	A2(A2T)	0.5	A3(A3T)	
P3(P1TH)	50	P3(P2TH)	50	P3(P3TH)	
A3(A1TH)	0.02	A3(A2TH)	0.7	A3(A3TH)	
TK1I	100	TK2I	25	TK3I	1500

Input Data **Result of Simulation**

Date	Order	Daily Rainfall (mm)	Daily EVP mm/day	Observed discharge (mm)	Calculated Discharge (mm)	Surface runoff tank: Tank storage capacity (mm)	Storm rainfall runoff	Rainfall runoff	Subsurface percolation	Subsurface ruoff tank: Tank storage capacity	Rapid runoff	Subsurface runoff	Subsurface percolation	Base runoff tank: Tank storage capacity	runoff
01-Dec-84	336	0	2	1.57	1.30	20.66	0.00	0.00	0.07	0.72	0.00	0.00	0.00	3668.56	1.30
02-Dec-84	337	0	2	1.57	1.30	20.59	0.00	0.00	0.06	0.78	0.00	0.00	0.00	3667.26	1.30
03-Dec-84	338	0	2.3	1.52	1.30	20.53	0.00	0.00	0.05	0.83	0.00	0.00	0.00	3665.96	1.30
04-Dec-84	339	0	3.2	1.52	1.30	20.48	0.00	0.00	0.05	0.88	0.00	0.00	0.00	3664.66	1.30
05-Dec-84	340	0	1.3	1.52	1.30	20.43	0.00	0.00	0.04	0.92	0.00	0.00	0.00	3663.37	1.30
06-Dec-84	341	0	2.7	1.52	1.30	20.39	0.00	0.00	0.04	0.96	0.00	0.00	0.00	3662.07	1.30
07-Dec-84	342	0	2.1	1.52	1.30	20.35	0.00	0.00	0.04	1.00	0.00	0.00	0.00	3660.77	1.30
08-Dec-84	343	0	0.5	1.52	1.30	20.32	0.00	0.00	0.03	1.03	0.00	0.00	0.00	3659.48	1.30
09-Dec-84	344	0	0.4	1.52	1.29	20.28	0.00	0.00	0.03	0.56	0.00	0.00	0.00	3658.18	1.29
10-Dec-84	345	0	1.7	1.52	1.29	20.26	0.00	0.00	0.03	0.18	0.00	0.00	0.00	3656.89	1.29
11-Dec-84	346	0	1.9	1.52	1.29	20.23	0.00	0.00	0.02	0.20	0.00	0.00	0.00	3655.59	1.29
12-Dec-84	347	0	1.3	1.52	1.29	20.21	0.00	0.00	0.02	0.22	0.00	0.00	0.00	3654.30	1.29
13-Dec-84	348	0.3	1.7	1.52	1.29	20.49	0.00	0.00	0.05	0.27	0.00	0.00	0.00	3653.00	1.29
14-Dec-84	349	0.8	0.5	1.52	1.29	21.24	0.00	0.00	0.12	0.40	0.00	0.00	0.00	3651.71	1.29
15-Dec-84	350	0	2.2	1.52	1.29	21.11	0.00	0.00	0.11	0.51	0.00	0.00	0.00	3650.42	1.29
16-Dec-84	351	0	1	1.52	1.29	21.00	0.00	0.00	0.10	0.61	0.00	0.00	0.00	3649.13	1.29
17-Dec-84	352	0	2.1	1.52	1.29	20.90	0.00	0.00	0.09	0.70	0.00	0.00	0.00	3647.83	1.29
18-Dec-84	353	0	4	1.52	1.29	20.81	0.00	0.00	0.08	0.78	0.00	0.00	0.00	3646.54	1.29
19-Dec-84	354	0	2.5	1.47	1.29	20.73	0.00	0.00	0.07	0.85	0.00	0.00	0.00	3645.25	1.29
20-Dec-84	355	0	1.9	1.52	1.29	20.66	0.00	0.00	0.07	0.92	0.00	0.00	0.00	3643.96	1.29
21-Dec-84	356	0	1.5	1.52	1.29	20.59	0.00	0.00	0.06	0.98	0.00	0.00	0.00	3642.67	1.29
22-Dec-84	357	0	2.9	1.47	1.29	20.53	0.00	0.00	0.05	1.03	0.00	0.00	0.00	3641.38	1.29
23-Dec-84	358	0	2	1.47	1.29	20.48	0.00	0.00	0.05	1.08	0.00	0.00	0.00	3640.09	1.29
24-Dec-84	359	0	2	1.41	1.29	20.43	0.00	0.00	0.04	1.12	0.00	0.00	0.00	3638.80	1.29
25-Dec-84	360	0	1.8	1.41	1.29	20.39	0.00	0.00	0.04	1.16	0.00	0.00	0.00	3637.52	1.29
26-Dec-84	361	0	2	1.36	1.29	20.35	0.00	0.00	0.03	1.20	0.00	0.00	0.00	3636.23	1.29
27-Dec-84	362	0	2.2	1.36	1.29	20.31	0.00	0.00	0.03	1.23	0.00	0.00	0.00	3634.94	1.29
28-Dec-84	363	0	2.8	1.36	1.29	20.28	0.00	0.00	0.03	1.26	0.00	0.00	0.00	3633.65	1.29
29-Dec-84	364	0	2	1.36	1.29	20.25	0.00	0.00	0.03	1.28	0.00	0.00	0.00	3632.37	1.29
30-Dec-84	365	0	1.9	1.36	1.29	20.23	0.00	0.00	0.02	1.30	0.00	0.00	0.00	3631.08	1.29
31-Dec-84	366	0	1	1.36	1.28	20.21	0.00	0.00	0.02	1.33	0.00	0.00	0.00	3629.80	1.28
			Average	2099.85	1890.87										
		Veryfication Value		1.11											