



ANJUMAN-I-ISLAM'S  
**KALSEKAR TECHNICAL CAMPUS, NEW PANVEL**  
 School of Engineering & Technology

**DEPARTMENT OF MECHANICAL ENGINEERING**

CLASS:- BE ME-2	SEM:- VII
SUBJECT:- PPE	DATE:- <b>16 / 09 / 2016</b>
DURATION:- <b>60 min.</b>	MARKS:- <b>20</b>

**CLASS TEST 01**

**Q.01 Attempt any four: (08 Marks)**

a)	Write note on Hydrograph	2
b)	What is flow duration curve and its significance?	2
c)	Write short note on run-off river plant	2
d)	What is surge tank in hydro-power plant?	2
e)	Explain buttress dam	2

**Q.02 Attempt any two: (12 Marks)**

a)	<p>The run off data of a river for 12 months at a particular site is given below</p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <thead> <tr> <th style="width: 25%;">Month</th> <th style="width: 25%;">Discharge millions of m<sup>3</sup> per month</th> <th style="width: 25%;">Month</th> <th style="width: 25%;">Discharge millions of m<sup>3</sup> per month</th> </tr> </thead> <tbody> <tr> <td>Jan.</td> <td style="text-align: center;">1500</td> <td>July</td> <td style="text-align: center;">3000</td> </tr> <tr> <td>Feb.</td> <td style="text-align: center;">1200</td> <td>Aug.</td> <td style="text-align: center;">3600</td> </tr> <tr> <td>March</td> <td style="text-align: center;">900</td> <td>Sept.</td> <td style="text-align: center;">3000</td> </tr> <tr> <td>April</td> <td style="text-align: center;">600</td> <td>Oct.</td> <td style="text-align: center;">2400</td> </tr> <tr> <td>May</td> <td style="text-align: center;">300</td> <td>Nov.</td> <td style="text-align: center;">2100</td> </tr> <tr> <td>June</td> <td style="text-align: center;">2100</td> <td>Dec.</td> <td style="text-align: center;">1800</td> </tr> </tbody> </table> <p>Draw i) Hydrograph and ii) Flow duration curve. If available water head at site is 90 m find power generated. Take turbine and generator efficiency as 90% and 95% respectively for 30 days</p>	Month	Discharge millions of m <sup>3</sup> per month	Month	Discharge millions of m <sup>3</sup> per month	Jan.	1500	July	3000	Feb.	1200	Aug.	3600	March	900	Sept.	3000	April	600	Oct.	2400	May	300	Nov.	2100	June	2100	Dec.	1800	6
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b)	Explain in detail different types of spillways and control gates.	6																												
c)	What different methods are used to measure rainfall?	6																												