Code No: NR411003 **NR**

IV B.Tech I Semester Supplementary Examinations, April/May 2005
POWER PLANT INSTRUMENTATION
(Electronics & Instrumentation Engineering)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Describe a Wind power generation with the help of block diagram.
2. List the importance parameters that are to be monitored in tidal mill.
3. (a) What is meant by transfer function of an instrument? Explain the principle and operation of electrodynamometer ammeter with a neat diagram. How it operates on A.C. and D.C.?
   (b) A basic d'Arsonval movement with internal resistance of 100 Ω and full scale current of 1mA is to be converted into a multirange ammeter with ranges 0-10mA, 0-50mA, 0-100mA and 0-250mA. Design the multirange ammeter and draw the circuit arrangement.
   (c) What are the sources of error in measurement of current using moving iron ammeter? How the errors can be compensated?
4. Describe with a neat sketch the method of measuring fuel flow rate.
5. With the help of neat sketches. Explain fuel and ash handling system used in power plants?
6. Explain in detail about interlocks in boilers used in power plants?
7. What are the objectives of turbine plant heat determination. Explain.
8. What is the principle of liquid chromatography? Explain the instrumentation involved in liquid chromatography with applications.

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