

**B.Tech. MECHANICAL ENGINEERING  
(BTMEVI)**

**Term-End Examination**

**June, 2013**

**BIME-017 : POWER PLANT ENGINEERING**

*Time : 3 hours*

*Maximum Marks : 70*

*Note : Answer any five questions.*

1. (a) Briefly discuss 8
  - (i) Tidal Energy and
  - (ii) Wave energy with suitable diagrams
- (b) List three main components of Boilers with their functions. 6
  
2. (a) Explain classification of different furnaces. 7
- (b) Write short note on VELOX Boiler. 7
  
3. (a) Describe atomic structure of matter and its Nomenclature. 7
- (b) Explain the working of Boiling Water Reactor. 7
  
4. (a) With schematic diagram, explain CANDU Reactor. 8
- (b) Compare "Incineration" and "Cementation" process of nuclear waste management. 6

5. (a) Explain about Multi-point Fuel Injection system. 7  
(b) Explain about main components of a Brayton-type engine. 7
6. (a) Explain with diagram Gas Turbine of Jet engine. 7  
(b) Explain about the basic components of a conventional hydropower plant. 7
7. Answer *any two* of the following : 17x2=14  
(a) Kaplan Turbine  
(b) Methods of Depreciation  
(c) Diesel power station  
(d) Shrink and Swell in a Boiler system
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