Code No: NR410304   **NR**   **Set No. 2**

IV B.Tech I Semester Examinations,November 2010
POWER PLANT ENGINEERING
Mechanical Engineering

Time: 3 hours   Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
⋆ ⋆ ⋆ ⋆ ⋆

1. (a) Mention the different methods of fuel injection used in Diesel plants. Which method is mostly used?

   (b) What are the advantages of Diesel power plant?

   (c) List some applications of Diesel engine plants.   [8+4+4]

2. (a) What is a chain reaction? How it is controlled?

   (b) Draw a neat diagram of nuclear reactor and explain the functions of different components.

   (c) What are the fuels used in nuclear power plants?   [4+8+4]

3. What is a condenser? Name the different types of condensers. Describe the Operation of

   (a) Surface condenser

   (b) Jet condenser   [16]

4. (a) What are main pollutants from a power station? What is meant by air pollution?

   (b) What are the effects of SO_2, NO_x and hydrocarbons on human and vegetation?   [8+8]

5. (a) What are the relative merits and demerits of tidal power plants?

   (b) Describe with a neat sketch the working principle of any one type of wind mill.   [8+8]

6. With a neat sketch explain the working of a simple constant pressure gas turbine. Mention its advantages and disadvantages.   [16]

7. What are the various factors to be considered in selecting the site for a hydro electric power plant and discuss about primary and secondary investigations.   [16]

8. What will be the future planning of power generation in India?   [16]

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Code No: NR410304   **NR**   **Set No. 4**

IV B.Tech I Semester Examinations,November 2010
POWER PLANT ENGINEERING
Mechanical Engineering

Time: 3 hours   Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
⋆ ⋆ ⋆ ⋆ ⋆

1. (a) Mention the different methods of fuel injection used in Diesel plants. Which method is mostly used?

   (b) What are the advantages of Diesel power plant?

   (c) List some applications of Diesel engine plants. [8+4+4]

2. What are the various factors to be considered in selecting the site for a hydro electric power plant and discuss about primary and secondary investigations. [16]

3. What is a condenser? Name the different types of condensers. Describe the Operation of

   (a) Surface condenser

   (b) Jet condenser [16]

4. What will be the future planning of power generation in India? [16]

5. (a) What is a chain reaction? How it is controlled?

   (b) Draw a neat diagram of nuclear reactor and explain the functions of different components.

   (c) What are the fuels used in nuclear power plants? [4+8+4]

6. (a) What are the relative merits and demerits of tidal power plants?

   (b) Describe with a neat sketch the working principle of any one type of wind mill. [8+8]

7. With a neat sketch explain the working of a simple constant pressure gas turbine. Mention its advantages and disadvantages. [16]

8. (a) What are main pollutants from a power station? What is meant by air pollution?

   (b) What are the effects of SO_2, NO_x and hydrocarbons on human and vegetation? [8+8]

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Code No: NR410304 | **NR** | **Set No. 1**

IV B.Tech I Semester Examinations,November 2010
POWER PLANT ENGINEERING
Mechanical Engineering

Time: 3 hours　　　　　　　　　　　　　　　　　　Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. What will be the future planning of power generation in India?　　　[16]

2. (a) What are the relative merits and demerits of tidal power plants?

   (b) Describe with a neat sketch the working principle of any one type of wind mill.
   　　　　　　　　　　　　　　　　　　　　　　　　　　　　[8+8]

3. (a) Mention the different methods of fuel injection used in Diesel plants. Which method is mostly used?

   (b) What are the advantages of Diesel power plant?

   (c) List some applications of Diesel engine plants.　　　　　　[8+4+4]

4. What are the various factors to be considered in selecting the site for a hydro electric power plant and discuss about primary and secondary investigations.　　[16]

5. (a) What is a chain reaction? How it is controlled?

   (b) Draw a neat diagram of nuclear reactor and explain the functions of different components.

   (c) What are the fuels used in nuclear power plants?　　　　　[4+8+4]

6. (a) What are main pollutants from a power station? What is meant by air pollution?

   (b) What are the effects of SO_2, NO_x and hydrocarbons on human and vegetation?
   　　　　　　　　　　　　　　　　　　　　　　　　　　　　[8+8]

7. With a neat sketch explain the working of a simple constant pressure gas turbine. Mention its advantages and disadvantages.　　　　　　　　　[16]

8. What is a condenser? Name the different types of condensers. Describe the Operation of

   (a) Surface condenser

   (b) Jet condenser　　　　　　　　　　　　　　　　　　[16]

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NR **Set No. 3**

IV B.Tech I Semester Examinations,November 2010
POWER PLANT ENGINEERING
Mechanical Engineering

Time: 3 hours
Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. (a) What is a chain reaction? How it is controlled?

   (b) Draw a neat diagram of nuclear reactor and explain the functions of different components.

   (c) What are the fuels used in nuclear power plants? [4+8+4]

2. What will be the future planning of power generation in India? [16]

3. With a neat sketch explain the working of a simple constant pressure gas turbine. Mention its advantages and disadvantages. [16]

4. What are the various factors to be considered in selecting the site for a hydro electric power plant and discuss about primary and secondary investigations. [16]

5. (a) What are the relative merits and demerits of tidal power plants?

   (b) Describe with a neat sketch the working principle of any one type of wind mill.
   [8+8]

6. (a) What are main pollutants from a power station? What is meant by air pollution?

   (b) What are the effects of SO_2, NO_x and hydrocarbons on human and vegetation?
   [8+8]

7. What is a condenser? Name the different types of condensers. Describe the Operation of

   (a) Surface condenser

   (b) Jet condenser [16]

8. (a) Mention the different methods of fuel injection used in Diesel plants. Which method is mostly used?

   (b) What are the advantages of Diesel power plant?

   (c) List some applications of Diesel engine plants. [8+4+4]

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