GOVERNMENT COLLEGE OF ENGINEERING, JALGAON
(An Autonomous Institute of Government of Maharashtra)
National Highway No.6, JALGAON – 425 002

Phone No.: 0257-2281522	Fax No.: 0257-2281319
Website : www.gcoej.ac.in	E-mail : princoej@redifmail.com

Name of Examination : **Winter 2020** - (Preview)

Course Code & Course Name : **IN304UB - (Professional Elective- I)-Power Plant Instrumentation**

Generated At : **18-04-2022 16:33:03**

Maximum Marks : **60**   Duration : **3 Hrs**

Edit   Print   View Answer Key   Close   **Answer Key Submission Type:** Marking scheme with model answers and solutions of numerical

Instructions:

1. *All questions are compulsory.*
2. *Illustrate your answer with suitable figures/sketches wherever necessary.*
3. *Assume suitable additional data; if required.*
4. *Use of logarithmic table, drawing instruments and non programmable calculators is allowed.*
5. *Figures to the right indicate full marks.*

---

1) **Solve any Three sub-question**

a) Classify and Compare power plants. [5]

b) With neat schematic, Explain the operation of Nuclear power plant. [5]

c) Describe various factors which determine the location of a steam power station. [5]

d) Discuss Super heater steam temperature control system in detail. [5]

2) **Solve any Three sub-question**

a) Explain Coal handling system with block diagram. [5]

b) Design and explain SCADA system for Boiler monitoring and control in Thermal power plants. [5]

c) What is Economiser? Discuss role of economiser in improving efficiency of thermal power plant. [5]

d) Explain concept of 3 Element Control of a Boiler. [5]

3) **Solve any Three sub-question**

a) Discuss Turbine instrumentation and controlsystems with neat diagram. [5]

b) Discuss Water tube boiler in detail. [5]

c) Design and explain SCADA system for Boiler monitoring and control in Thermal power plants. [5]

d) Explain with neat schematic power generation using Tidal power plants. [5]

4) a) Explain concept of Power generation using wind mills. [6]

b) **Write a note on**

i. Smart grid. [5]

ii. Burner management system. [4]

Auto Generated by SsOES v6.2