



PAPER ID-420317

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Subject Code: KOE092

Roll No:

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**BTECH**  
**(SEM VIII) THEORY EXAMINATION 2021-22**  
**COMPUTERIZED PROCESS CONTROL**

**Time: 3 Hours****Total Marks: 100****Note:** Attempt all Sections. If you require any missing data, then choose suitably.**SECTION A****1. Attempt all questions in brief.****2\*10 = 20**

Q.no	Questions	Marks	CO
(a)	What do you mean by Computerized Process Control?	2	1
(b)	What is the concept of Aided Process Control?	2	1
(c)	What do you mean by Industrial communication System?	2	2
(d)	What is the need of Communication Networking?	2	2
(e)	Discuss the concept of Process Modelling.	2	3
(f)	What are the needs of Process model?	2	3
(g)	Discuss about the Cascade Control.	2	4
(h)	Discuss about the Predictive control.	2	4
(i)	Write a short note on Electric Oven Temperature Control.	2	5
(j)	Write a short note on Furnace Temperature Control.	2	5

**SECTION B****2. Attempt any three of the following:****10\*3 = 30**

Q.no	Questions	Marks	CO
(a)	Explain about the Thickness and Flatness control System for metal Rolling in Computerized Process Control.	10	5
(b)	Describe in detail about Data Transfer Techniques in Industrial communication System.	10	2
(c)	Describe in detail about any two of the following. (i) Physical model (ii) Control Model (iii) Process Modelling.	10	3
(d)	Discuss about the need and advantages of Advanced Strategies For Computerized Process control.	10	4
(e)	Discuss in detail about the Role of computers in process control.	10	1

**SECTION C****3. Attempt any one part of the following:****10\*1 = 10**

Q.no	Questions	Marks	CO
(a)	Define Computer-Aided control of Electric Power Generation Plant.	10	5
(b)	Describe about the Computer Aided Process control software.	10	2



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4. Attempt any *one* part of the following: 10 \*1 = 10

Q.no	Questions	Marks	CO
(a)	Discuss about the Elements of a computer aided Process control System.	10	1
(b)	What do you mean by Goals, Definition and Information Preparation under the Modelling Procedure?	10	3

5. Attempt any *one* part of the following: 10\*1 = 10

Q.no	Questions	Marks	CO
(a)	Discuss in detail about the Adaptive Control and Inferential control under the Advanced Strategies For Computerized Process control.	10	4
(b)	Discuss about the Supervisory control under the Computerized Process control.	10	5

6. Attempt any *one* part of the following: 10\*1 = 10

Q.no	Questions	Marks	CO
(a)	Discuss about the Homogenous Transform and its Inverse in Robot Elements.	10	2
(b)	Describe about the Types of Computer control Process Software in Industrial communication System.	10	1

7. Attempt any *one* part of the following: 10\*1 = 10

Q.no	Questions	Marks	CO
(a)	Describe in detail about any two of the following. (i) Model Formulation. (ii) Solution Finding. (iii) Results Analysis.	10	3
(b)	What do you understand by Intelligent Control and Statistical control under the Advanced Strategies For Computerized Process control?	10	4