

B.TECH. DEGREE EXAMINATION, MAY 2014**Eighth Semester**

Branch : Applied Electronics and Instrumentation Engineering /
 Electronics and Instrumentation Engineering

AI 010 802/EI 010 802 – INSTRUMENTATION IN PROCESS INDUSTRIES (AI, EI)

(New Scheme-2010 Admissions)

[Regular]

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 3 marks.

1. Explain the principle of commonly used unit operators.
2. List out few advantages of using computer in Food Industry.
3. Explain briefly about any *three* valves used in Iron and Steel Industry.
4. Write briefly about control rods in Nuclear Industry.
5. List various valves used on Pharmaceutical Industry.

(5 × 3 = 15 marks)

Part B

Answer all questions.

Each question carries 5 marks.

6. Write a note on extruders and its uses.
7. What are the commonly used controller and display methods in Food Industry?
8. Write a note on analysers in Iron and Steel Industry.
9. Discuss briefly about valves and feeders used in Paper Industry.
10. Write briefly about controllers and displays used in Pharmaceutical Industry.

(5 × 5 = 25 marks)

Part C

Answer all questions.

Each question carries 12 marks.

11. Explain in detail about batch reactors with the help of necessary diagrams.

Or

Turn over



12. With the help of a neat diagram, explain the working of heat exchanger.
13. Explain in detail about most commonly used control schemes in food industry.

Or

14. Give a detailed description of food industry with the help of an example.
15. Explain in detail about measurement of hardware in iron and steel industry.

Or

16. Discuss in detail about various control schemes in iron and steel industry.
17. Compare and contrast between analysers in paper industry and nuclear industry.

Or

18. Explain in detail about valves and controllers in nuclear industry.
19. Write notes on the following with reference to pharmaceutical industry :

- (a) Analysers.
- (b) Valves and feeders.

Or

20. Explain in detail about typical control schemes in pharmaceutical industry.

(5 × 12 = 60 marks)

