



GOVERNMENT COLLEGE OF ENGINEERING, JALGAON

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

Course Code & Course Name : **IN302 - Control System Components**

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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) a) Compare the hydraulic, pneumatic and electronic systems | [8] |
| b) With suitable schematic describe in detail the concept of 2-wire transmitters | [7] |
| OR | |
| C) With suitable schematic describe differential pressure transmitters | [7] |
| 2) a) With circuit and diagram describe working of resistance-to-current converter and voltage-to-current convertor | [8] |
| b) Describe square root extractor in short | [7] |
| OR | |
| c) Write short note on Coefficient of Control valve and selection of control valves for industrial applications | [7] |
| 3) a) With suitable diagram describe 2/2 way, 3/2 way, 5/2 way, 5/3 way control valve | [8] |
| b) Describe Function and Key components of a pressure reducing valve. | [7] |
| 4) a) Describe two position mode and multi-position mode Controller mode | [8] |
| b) What is mean by cavitation in valve working, how to avoid it. Describe with suitable sketch | [7] |

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