



# GOVERNMENT COLLEGE OF ENGINEERING, JALGAON

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

Course Code & Course Name : **EE302U - Microcontroller and Its Applications**

Generated At : **19-04-2022 11:01:38**

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 Two
  - a) Explain the Architecture of 8051 microcontroller [8]
  - b) Compare 8051 microcontroller with PIC [8]
  - c) Explain the addressing modes of 8051 microcontroller [8]
- 2) Solve the Following
  - a) Explain the following instruction [6]
    - i) MOV direct,Rn
    - ii) PUSH
    - iii) ANL a,@Rn
  - b) Explain the following instruction [6]
    - i) SWAP
    - ii) DJNZ
    - iii) RET
- 3) Solve any Two
  - a) Draw interfacing diagram showing necessary control lines of ADC and microcontroller. Write assembly language program to take 20 samples from ADC and store it in RAM location starting at 50H address [8]
  - b) Draw interfacing diagram and Write assembly language program of LCD to display "GCOE" [8]
  - c) Explain I2C Protocol with its advantages and disadvantages [8]
- 4) Write short note on following
  - a) Simulator [4]
  - b) Assembler [4]
  - c) Emulator [4]
  - d) Debugger [4]

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