

13/05/20

Printing Pages : 1

Paper Code : - BECE-403

(A) (SVSU) : 2023-2024/R

Enrollment No.

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B.Tech (ECE)
II YEAR, IV SEMESTER EXAMINATION
MICROCONTROLLERS

[Time : 03:00 Hours]

[Max. Marks : 70]

NOTE:- ATTEMPT ALL THE QUESTIONS AS PER GIVEN INSTRUCTIONS.

QUESTION NO. 1: ATTEMPT ANY FOUR PARTS.

(4*3=12)

- A) How does a microprocessor differentiate between data and instruction?
- B) Define bit, byte, word and instruction.
- C) Define opcode and operand, and specify the opcode and the operand in the instruction MOV H, L.
- D) Mention the salient features of 8086 microprocessor.
- E) List the various applications of a microcontroller.
- F) Define Instruction cycle, Machine cycle and T-state for microprocessor.

QUESTION NO. 2: ATTEMPT ANY THREE PARTS.

(3*4=12)

- A) Mention the differences between microprocessors and microcontrollers.
- B) Explain the timing diagram of Memory write machine cycle.
- C) Write a short note on addressing modes of 8086.
- D) Explain the following instructions of 8085 microprocessor with an example.
 - a) Data transfer instructions
 - b) Logical instructions
 - c) Arithmetic instructions
 - d) Machine control instructions

QUESTION NO. 3: ATTEMPT ANY THREE PARTS.

(3*6=18)

- A) Write a short note on input and output (I/O) devices in microprocessor.
- B) Explain interrupt structure of a microprocessor. Explain masking with a suitable diagram.
- C) Discuss in detail, with suitable diagrams, a Microprocessor-Controlled Temperature System (MCTS).
- D) Give classification of Microcontroller according to bit size, memory and instruction set.

QUESTION NO. 4: ATTEMPT ANY TWO PARTS.

(2*7=14)

- A) Explain classification of memory with help of a diagram. Explain each type in detail.
- B) Draw the pin diagram of 8085 μ P and explain the functionality of each pin.
- C) Explain different types of logic devices for interfacing the components of a bus-oriented system.

QUESTION NO. 5: ATTEMPT ANY TWO PARTS.

(2*7=14)

- A) Define interrupt. Write a brief description of the interrupts present in 8051 μ C.
- B) With the help of a neat block diagram, explain the internal architecture of 8051 microcontroller in detail.
- C) Write a detailed note on 80286 Processor.



B.TECH. (ECE)
2ND YEAR IVTH SEM EXAMINATION
SUBJECT NAME: - Industrial Psychology
[BHU-401]

[Time : 3:00 Hours]

[Max. Marks : 70]

- 1 Answer Any Four** [4×3=12]
- a. What is the meaning of accidents and safety explains with diagram?
 - b. Explain the meaning of job analysis and recruitment?
 - c. What is the process of selection and interview?
 - d. What is the meaning of Industrial Psychology?
 - e. What is the meaning of leadership?
 - f. What is the meaning of fatigue?
- 2. Answer Any Three** [3×4=12]
- a. Explain the procedure of reliability and validity test with the diagram?
 - b. What is the meaning of training explain in detail?
 - c. What is the purpose of development in the industrial psychology?
 - d. Explain performance management with diagram?
- 3. Answer Any Three** [3×6=18]
- a. What is the meaning of Training & Development?
 - b. Explore the stress management with example?
 - c. What is the meaning of motivation and job satisfaction?
 - d. What is the meaning of cultural behavior?
- 4. Answer Any Two** [2×7=14]
- a. Explore the meaning of boredom and Monotony?
 - b. What is the meaning of Accidents and Safety?
 - c. What is the purpose of job analysis?
- 5. Answer Any Two** [2×7=14]
- a. Explain Reliability & Validity of Recruitment tests?
 - b. What is the meaning of Stress management and Organizational culture?
 - c. Explain Scientific Management and Human relations?

IIND YEAR IVTH SEM EXAMINATION
ANALOG AND DIGITAL COMMUNICATION

[Max. Marks : 70]

[$4 \times 3 = 12$]

- [3×4=12]

- [3×6=18]

- [2x7=14]

- [2x7=14]

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Enrollment No.

B.TECH. (ECE)
IIND YEAR IVTH SEM EXAMINATION
ANALOG CIRCUITS

[Time : 3:00 Hours]

[Max. Marks : 70]

1 Answer Any Four

[4×3=12]

- Explain a voltage amplifier?
- Explain the concept of trans-conductance amplifier?
- What is a transistor, explain with diagram?
- What is the difference between multistage amplifiers, cascade amplifier?
- Explain block diagram of an operation amplifier?
- What is digital to analog converter? Discuss in brief.

2. Answer Any Three

[3×4=12]

- a. Explain current amplifier with diagram and elaborate?
- b. Explain various classes of cascaded amplifier and discuss?
- c. What is oscillator circuit, explain with a diagram?
- d. Explain non inverting amplifier with a diagram?

3. Answer Any Three

[3×6=18]

- a. What is the R-2R register method, explain it with a diagram?
- b. Explore biasing scheme of FET with diagram?
- c. What is the meaning of a multistage amplifier? Design it.
- d. What is the meaning of summing amplifier? Explain its concept with a diagram?

4. Answer Any Two

[2x7=14]

- a. Explain different types of analog to digital converter with diagram?
- b. Explore Schmitt trigger and its applications in full detail?
- c. Explain different types of power amplifier and explain them?

5. Answer Any Two

[2x7=14]

5. Answer Any Two
 - a. Explain different types of analog to digital converter with diagram?
 - b. Explore the different configuration of FET in detail?
 - c. What is the purpose of operation amplifier ? Explain it with block diagram?
