



CBCS SCHEME - Make-Up Exam

BEC/BVL654B

Sixth Semester B.E/B.Tech. Degree Examination, June/July 2025 Consumer Electronics

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

| Module - 1 | | | M | L | C |
|------------|----|---|----|----|-----|
| 1 | a. | What is a Microphone? Mention the requirements for a Microphone. | 7 | L2 | CO1 |
| | b. | Explain briefly the different qualities of Microphone technically for its use. | 7 | L2 | CO1 |
| | c. | Mention the important features of loudspeaker with their significance. | 6 | L1 | CO1 |
| OR | | | | | |
| 2 | a. | With a neat diagram explain the construction and working of an Electrodynamic loudspeaker. | 6 | L2 | CO1 |
| | b. | Explain the working principle of Horn loudspeaker with a neat diagram with its advantages and disadvantages. | 7 | L2 | CO1 |
| | c. | List the features of Ribbon Microphone. Mention its advantages, disadvantages and applications. | 7 | L1 | CO1 |
| Module - 2 | | | | | |
| 3 | a. | What are the advantages and disadvantages of using Audio Compact discs for sound recording. Explain in detail. | 7 | L1 | CO2 |
| | b. | Describe the process of optical recording in audio CD with relevant diagrams. | 7 | L2 | CO2 |
| | c. | Explain briefly the Geometry of Audio Disc with relevant diagram. | 6 | L2 | CO2 |
| OR | | | | | |
| 4 | a. | Describe the En-Coding process and Error Correction in Audio Compact Disc. | 10 | L1 | CO2 |
| | b. | Explain in steps the details of Play Back Process in Audio CD. | 10 | L1 | CO2 |
| Module - 3 | | | | | |
| 5 | a. | Write a short note on Primary colours, Tristimulus values. | 6 | L1 | CO3 |
| | b. | Apply the knowledge of Mixing of Primary Colours and explain the following: i) Additive Mixing of Colours. ii) Subtractive Mixing of Colours. | 7 | L2 | CO3 |
| | c. | Analyze the colour circle with detailed explanations of spectral and Non-spectral colours. | 7 | L2 | CO3 |
| OR | | | | | |
| 6 | a. | Analyze and describe the various colour specifications. | 10 | L2 | CO3 |
| | b. | Explain with a relevant block diagrams Digital T.V. or HDTV. | 5 | L2 | CO3 |
| | c. | Write a note on VSB transmission and B, P, I frames. | 5 | L1 | CO3 |
| Module - 4 | | | | | |
| 7 | a. | Describe and analyze how a video monitor is different from television receiver. | 6 | L4 | CO4 |
| | b. | With a neat block diagram explain the working of CCTV system. | 8 | L2 | CO4 |
| | c. | List the applications of CCTV and analyze the difference between each. | 6 | L2 | CO4 |

OR

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|---|----|--|---|----|-----|
| 8 | a. | Illustrate how cable television system is different from CCTV system with relevant diagrams. | 8 | L2 | CO4 |
| | b. | Demonstrate the working of digital watch / clock with suitable circuit and block diagrams. | 7 | L2 | CO4 |
| | c. | Demonstrate the architecture of an Electronic Calculator with its functional subsystems. | 5 | L2 | CO4 |

Module – 5

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|---|----|---|---|----|-----|
| 9 | a. | Illustrate the working of Mobile Telephone with the role of base station and cells in a cellular network. | 8 | L2 | CO5 |
| | b. | Distinguish between the working of pager and mobile telephone. | 6 | L2 | CO5 |
| | c. | Demonstrate the role of Inverter in working of UPS power supply system. | 6 | L2 | CO5 |

OR

| | | | | | |
|----|----|---|---|----|-----|
| 10 | a. | Compare the conventional Ignition system with Electronic ignition system for Automobiles. | 8 | L2 | CO5 |
| | b. | Analyze the organization of digital computer with various functional components with a block diagram. | 6 | L2 | CO5 |
| | c. | Illustrate the recent Advances in consumer Electronics with examples. | 6 | L2 | CO5 |

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2 of 2