| Tota  | l No.     | of Questions : 10] SEAT No. :   |
|-------|-----------|---|
| P20   | 30        | [Total No. of Pages : 2   |
|       |           | [5059] - 636  |
| ]     | B.E.      | (Electronics & Telecommunication) (Semester - II)   |
|       |           | AUDIO VIDEO ENGINEERING   |
|       |           | (2012 Pattern) (Elective - III)   |
| Time  | e: 2½     | [Max. Marks: 70   |
| Insti | ructio    | ons to the candidates:  |
|       | <i>1)</i> | Answer questions Q1 or Q2, Q3 or Q4, Q5 or Q6, Q 7 or Q8, Q9 or Q 10.                                 |
|       | <i>2)</i> | Neat diagrams must be drawn wherever necessary.   |
|       | 3)        | Figures to the right side indicate full marks.  |
|       | 4)        | Use of Calculator is allowed.   |
|       | <i>5)</i> | Assume Suitable data if necessary.  |
| Q1)   | a)        | In analog PAL TV system, justify the total channel bandwidth (VSB) is 7 MHz with suitable sketch. [5] |
|       | b)        | Compare high level and low level TV transmitters. [5]   |
|       |           | OR  |
| Q2)   | a)        | Explain the use of Wobbuloscope in TV receiver alignments. [5]  |
|       | b)        | Discuss Digital TV signals and Digitized Video parameters along with bandwidth requirements. [5]      |

Q3) a) Discuss the necessity of video compression techniques with various steps involved in the compression. [5]

b) Explain Set Top box used in Direct to Home TV. [5]

OR

**Q4)** a) Discuss HDTV standards and main features of HDTV. [5]

b) Explain the terms in brief: i) Video on Demand, ii) CAS [5]

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| <b>Q5</b> ) | a)          | Explain in detail the IPTV technology.   | [8]            |
|-------------|-------------|--|----------------|
|             | b)          | Explain the working of Video Door Phone systems.   | [8]            |
|             |             | OR   |                |
| Q6)         | a)          | Discuss 3G Mobile TV systems.  | [8]            |
|             | b)          | Explain the working of Video Projector with neat diagram.  |                |
|             |             | State the typical specifications for it.   | [8]            |
| Q7)         | a)          | Discuss the various methods of optical recording of sound.   |                |
|             |             | Explain optical recording on CD in detail.   | [10]           |
|             | b)          | Explain the terms:   | [8]            |
|             |             | i) Blue Ray DVD and HD DVD   |                |
|             |             | ii) Audio standards for recording  |                |
|             |             | OR   |                |
| Q8)         | a)          | Explain the principle of operation for CD/ DVD Player.   |                |
|             |             | Discuss specifications for CD and DVD.   | [10]           |
|             | b)          | Explain the terms:   | [8]            |
|             |             | i) Stereo Sound System   |                |
|             |             | ii) Dolby Digital sound System   |                |
| Q9)         | a)          | Discuss the technology of Satellite Radio reception with necessary diagram.                            | y block<br>[8] |
|             | b)          | With block diagram, explain cordless microphone based PA S State four important specifications for it. | ystem.<br>[8]  |
|             |             | OR   |                |
| Q10         | <b>)</b> a) | Explain in brief, typical PA System installation plan for an audi-<br>having large capacity.           | torium<br>[8]  |
|             | b)          | Discuss Acoustic Chamber in detail.  | [8]            |
|             |             |  |                |



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