

**MultiMedia Systems**  
**Minor - II**

Time - 1 Hr

Max Marks - 20

Q1. What are the problems of designing coding and compression schemes for video of depth information required for depth image based rendering in 3D TV? Suggest a compression scheme that does not distort depth discontinuity.

(1+3)

Q2. What is Memory Endurance? Reducing process geometry has what effect on memory endurance and why?

(1+3)

Q3. Define Code Rates. Higher Code rates lead to weaker correction capability. Explain.

(1+1)

Q4. DSP data path design requires Shifters and Guard Bits. Why? How does this help.

(1.5+1.5)

Q4 (b) Saturation is a key support needed in DSP design. Why? Explain with context how saturation is important for DSP operations.

(2)

Q5. Pick any two-multimedia applications from the list below and give Block Diagram of the SOC required for each one of them - clearly demarcating the reason for picking up the blocks for each one of those. The differences and similarities (if any) need to be clearly highlighted.

1. Cell phone

2. Digital Camera
3. Video Security
4. Medical Imaging
5. Automotive Vision