

Code No: **R164104A**

**R16**

**Set No. 1**

**IV B.Tech I Semester Advanced Supplementary Examinations, May - 2022**

**TELEVISION ENGINEERING**

**(Electronics and Communication Engineering)**

**Time: 3 hours**

**Max. Marks: 70**

*Question paper consists of Part-A and Part-B*

*Answer ALL sub questions from Part-A*

*Answer any FOUR questions from Part-B*

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**PART-A (14 Marks)**

1. a) Why is scrambling needed in Television system? [2]  
b) Justify the choice of negative modulation for TV transmission [2]  
c) What do you understand by PAL –D Colour system? [3]  
d) List some merits of high definition television [2]  
e) What is Transport Stream Demultiplexing? [2]  
f) What is “interoperability” and how does it relate to metadata? [3]

**PART-B (4x14 = 56 Marks)**

2. a) Describe how the flicker is solved by interlaced scanning? [7]  
b) Explain the terms: i) primary colours ii) complementary colours iii) additive colour mixing. [7]
3. a) Discuss the factors that affect the bandwidth and resolution and explain the types of resolution and bandwidth in detail. [7]  
b) Draw the structure and explain the raster scanning. [7]
4. a) Explain about FM Sound detectors. [7]  
b) Explain the principle and operation of 180° PAL–SWITCH circuitry. [7]
5. a) Mention four special features of Digital TV which cannot be easily incorporated in analog TV. [7]  
b) Discuss about H.264. [7]
6. a) With neat sketch explain Digital TV Receiver [7]  
b) Discuss about Cable DTV Standards. [7]
7. a) What are the emerging technologies and standards? Explain. [7]  
b) Write short notes on Technology and Standards Development. [7]

