

**B.TECH.****THEORY EXAMINATION (SEM–VIII) 2016-17  
ADVANCED DISPLAY TECHNOLOGIES & SYSTEMS****Time : 3 Hours****Max. Marks : 100****Note : Be precise in your answer. In case of numerical problem assume data wherever not provided.****SECTION-A****1. Explain the following :****(10×2=20)**

- a) Define snells law of refraction.
- b) Define Horopter
- c) What are the materials used in capacitive touchscreen.
- d) What are the differences between LED and conventional diodes.
- e) Explain the basic principle of CRT.
- f) Explain charge transport in OLEDs.
- g) Explain digital holography.
- h) Classify microdisplays.
- i) Explain LCOS principle of operation.
- j) What are the advantages of DLP projections.

**SECTION-B****2. Attempt any five of the following :****(10×5=50)**

- a) Explain optical modulation in detail.
- b) Explain graphic controllers in detail.
- c) Explain transparent conductors.
- d) Explain fabrication and operation of OLED.
- e) Explain the principles of holographic display.
- f) Explain MEMS Microdisplay.
- g) Explain head won displays.
- h) Explain RT in detail.

**SECTION-C****Attempt any two of the following :****(15×2=30)**

- 3 Explain the concept of optical modulation in detail.
- 4 Explain the following
  - i) Photolithographic Process.
  - ii) Volumetric 3D display
  - iii) Electronic viewfinder
- 5 Explain multifocus displays and occlusion display in detail.