

**PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION MAY 2017**  
(Fourth Semester)

Branch - **VISUAL COMMUNICATION (ELECTRONIC MEDIA)**

**BASICS OF SOUND OPTICS & ILLUMINATION ENGINEERING**

Time : Three Hours

Maximum : 75 Marks

**SECTION-A (20 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10x2 = 20)

- 1 What is sound energy?
- 2 What do you mean by sound pressure?
- 3 Define octave.
- 4 What is musical note?
- 5 Define resonance.
- 6 What are standing waves?
- 7 Define prisms.
- 8 What is optics?
- 9 What is color index?
- TO Define illumination.

**SECTION - B (25 Marks!)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks {5x5 = 25}

- 11 a Discuss speed of sound in air.  
OR  
b Explain how the sound is produced and propagated.
- 12 a Write short note on (1) Rhythm (2) Tempo and (3) Meter.  
OR  
b ■ Explain musical note.
- 13 a Discuss about resonance.  
OR  
b Explain distortion in sound.
- 14 a Distinguish the properties of concave and convex lens.  
OR  
b Explain the basic principle of prism.
- 15a Discuss the basic theory of illumination.  
OR  
b Write short note on international standard colors.

**SECTION - C (30 Marks!)**

Answer any **THREE** Questions

**ALL** Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Explain the basic theory of sound.
- 17 What is noise? Explain the pink noise & white noise.
- 18 Discuss the following : (1) Loudness (2) Standing waves.
- 19 Calculate the value of focal length of the lens.
- 20 Discuss the basic theory of illumination and explain color index.