

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024  
(Third Semester)

Branch – VISUAL COMMUNICATION

DIGITAL SOUND, IMAGE AND LIGHT PROCESSING/  
BASICS OF SOUND OPTICS & ILLUMINATION ENGINEERING

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 ADCs are  
(i) Converters (ii) Recorders  
(iii) Editors (iv) EFX
- 2 Which hand-held device that emits an audible tone of very accurate level and frequency?  
(i) Audio recorders (ii) Acoustic Calibrator  
(iii) Sound Emitters (iv) Acoustic treatment
- 3 The \_\_\_\_\_ curve is the CIE standard curve used in the CIE 1931 color space.  
(i) Autotopic (ii) Metaphor  
(iii) Photopic (iv) None of these
- 4 Correlated colour temperature (CCT) is one measure of the quality of \_\_\_\_\_.  
(i) White light (ii) Car light  
(iii) Green light (iv) Yellow light
- 5 \_\_\_\_\_ offers affordable 3D projection display from a single unit. and can be used with both active and passive 3D solutions.  
(i) Mercury (ii) DLP  
(iii) DPL (iv) All of these

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Describe the perception of sound.  
OR  
b Narrate the sound Aesthetics.
- 7 a Write about the SPL and dB scale and sound level meter.  
OR  
b Derivate the sabine formula.
- 8 a Explain the features of electromagnetic waves.  
OR  
b Analyze the visible light spectrum.
- 9 a Explain the measuring nature of color meter and unified glare rating.  
OR  
b List out the light controlling devices and light cutters.
- 10 a Describe the Lumens and candela.  
OR  
b Summarize the techniques of 'full motion video'.

Cont...

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11 a Describe the sound signals and Digital informations.

OR

b Highlight the speech, vocal and sound musics.

12 a Classify the Indian musical instruments.

OR

b Analyze the various kinds of sound monitors and its features.

13 a Discuss about the importance of colour sampling system.

OR

b Discuss the data rates for various kinds of digital videos.

14 a Summarize the salient features of colour temperature in cinematography.

OR

b Narrate the communication protocols.

15 a Explain the multiple display matrixes and its processes.

OR

b Discuss the growth of OLED and LED display usage in recent days.

Z-Z-Z

END