

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

**BSc DEGREE EXAMINATION MAY 2025  
(Third Semester)**

Branch **VISUAL COMMUNICATION(ELECTRONIC MEDIA)**

**DIGITAL SOUND, IMAGE AND LIGHT PROCESSING**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer **ALL** questions

**ALL questions carry EQUAL marks** (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	As sound requires a medium, it cannot travel through which of the following? a) Glass b) Air c) Vacuum d) Water	K1	CO1
	2	What is the sound motion curves called? a) Frequency b) Cycle c) Overtone d) Waveform	K2	CO1
2	3	Which scale is often convenient to measure sound pressures on a logarithmic scale? a) Amplitude b) Decibel c) Threshold d) Temperature	K1	CO2
	4	When the pitch of sound increases, which of the following increases. a) intensity b) loudness c) wavelength d) frequency	K2	CO2
3	5	Red colour lights are used for emergency purposes because a) It has a long wavelength b) It has a high frequency c) It carries high energy d) none of the above	K1	CO3
	6	Which of the following is described as how pure the color is, which depends on the spread or bandwidth of the light spectrum? a) Hue b) Saturation c) Luminance d) Chrominance	K2	CO3
4	7	Which among the following is the unit of luminance or illumination? a) Lux b) Candela c) Lumen d) Candela/sq.m	K1	CO4
	8	The type of Zoom that uses the camera lens to magnify the image a) Optical b) digital c) neither d) both	K2	CO4
5	9	The video file format is a) Tiff b) AVI c) WAV d) both a & b	K1	CO5
	10	How many scanning lines per frame are there for Indian PAL system? a) 255 b) 365 c) 760 d) 625	K2	CO5

Cont...

**SECTION - B (35 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain the mechanism of hearing with a diagram.	K2	CO1
	(OR)			
	11.b.	Compare analog vs digital audio.		
2	12.a.	Explain how the sound is measured and its importance.	K2	CO2
	(OR)			
	12.b.	Compare Western scale and Indian ragas of music.		
3	13.a.	Distinguish between concave and convex lens.	K5	CO3
	(OR)			
	13.b.	Explain light wave theory in detail.		
4	14.a.	List out the benefits of using light meter in photo shoots.	K4	CO4
	(OR)			
	14.b.	Discover the benefits of using white balance and black balance in cinematography.		
5	15.a.	Explain the four primary broadcast video standards in detail.	K5	CO5
	(OR)			
	15.b.	What kind of TV displays are used by viewers nowadays? Give reason.		

**SECTION -C (30 Marks)**

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain in detail the different sounds of music.	K2	CO1
2	17	How will you apply the different effects used to make the sound feel realistic and enjoyable.	K3	CO2
3	18	Discuss in detail how the human eye perceives light with a diagram.	K5	CO3
4	19	Examine the need to understand the color temperature while learning the concepts of cinematography.	K4	CO4
5	20	Discuss in detail the different TV screens used from the past till date.	K5	CO5

Z-Z-Z END