Electronics & Communication Engineering (CBC and CBCS Pattern) M.Tech. Second Semester
Old+CBCS

PECS241 - Elective-II : Advanced Audio & Video Communication

P. Pages : 1 **GUG/W/18/11034**

Time : Three Hours * 3 1 5 3 * Max. Marks : 70

Notes : 1. Attempt **any five** questions.
2. All questions carry equal marks.
3. Illustrate your answers wherever necessary with the help of neat sketches.

1.	a)	Explain Auditory psychophysic for coding application.	**7**
	b)	What do you mean by loudness of pitch in detail.	**7**
2.	a)	Explain threshold of heating in detail.	**4**
	b)	Explain speech production models.	**5**
	c)	Write a short note on theory of wave propagation in vocal tracts.	**5**
3.	a)	What do you mean by differential threshold.	**7**
	b)	What do you mean by Masked threshold.	**7**
4.	a)	Write a note on geometry of vocal and Nasal tracts with neat sketch.	**7**
	b)	Explain sources of excitation.	**7**
5.	a)	Write a short note on different attribute of speech coders.	**7**
	b)	Explain how linear production analysis synthesis speech coder works.	**7**
6.	a)	Define digital image and give the common values associated with it.	**8**
	b)	Explain the types of operations applied to digital images to transform an input image into an output image.	**6**
7.	a)	Explain how digital video overcome the drawbacks of an analog video.	**7**
	b)	How convolution and its properties are useful in digital image processing.	**7**
8.	a)	What are different filtering operation involved in digital image processing.	**7**
	b)	Explain in detail the photometric image formation models.	**7**

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