Faculty of Engineering
Architectural Department
Questions Bank
ARCH 426

MULTIPLE CHOICE

1. The sound pressure amplitude is expressed by:
   a. The maximum pressure amplitude pM
   b. The root-mean- square value Prms
   c. The instantaneous pressure below and above ambient pressure
   d. All of the above
2. The sound wave length is defined as :
   a. The distance travelled by the sound pressure wave in during one cycle.
   b. Space dimension between its walls.
   c. all of the above answers
   d. the number of cycles travelled in one second.
3. The transmission loss index in wall is due to:
   a. The wall surface area.
   b. The reflected wave incident on it.
   c. The sound pressure level difference across the wall.
   d. All of the above.

4. The frequency spectrum of a sound signal is :
   a. The sound turbulence
   b. The sinusoidal components of the sound waves
   c. The sound shadow
   d. None of the above

5-Noise id defined as the:

   e. High frequency sound
   f. The pure tone sound
   g. The unwanted sound
   h. none of the above answers.

TRUE OR FALSE:

6-Sound propagates, or travels through air, in waves. The waves are formed when the air molecules closest to the vibration source are pushed into their neighbors, and those neighboring molecules push against their neighbors, and so on.:

True **False**

7-frequency of 500 Hz means something is vibrating, back and forth, 500 times each minute:

True **False**

8-Acoustic shadowing occurs when objects block the direct sound path between a sound source, and one or more listeners

True **False**

9-The smallest dimension of an obstruction is not necessarily the most "significant" dimension for blocking sound from getting to one or more listeners.:

True **False**

10-No blockage: When the most significant dimension is smaller than one-quarter the size of the wavelength dimensions in question, then no significant blockage will occur:

True **False**

11- What are the three acoustical tools they represent the acoustical properties and interactive behavior of various surfaces

12- What are the three methods being used in sound delivery and presentation to live audience in built environment

13- define HZ

14 what is sound spectrum

15-perminant hearing shift

16- how to express sound pressure levels

19-does static pressure component produce sound signal

20-which is the most dominant sound level of the following sound sources 50dB 61 dB and 90 dB

21-how you mange to get equal loudness of room modes in built environment

22- what is the difference between sound insulating material and thermal

insulating material

23-what is meant by complex sound

24- how to achieve attenuation for outside noise generated from high way.

25- are outgoing and incoming traffic in phase or out of phase.

26- How NASA manage to adopt sound to cool the space craft cabin.

27- how is it possible to reduce echo in building design.

28- define reverberation

29- Define anechic chamber

30-what is meant by flutter noise.

31-knowing that the speed of light is 386000 km/s and sound is around 334 m/s how will you estimate the distance from where you stand and the thunder source.

32-why it is so clear to hear speech from a far distance in an early morning time.

33- why does similarities of built environment has to do with room mode

34- what is critical distance means in acoustics.

35-how you explain the inverse square law in acoustics.

36-how to achive fast RT60 in large building.

37-what is meant by acoustically dead room

38- what is meant by acoustically live room.

39-what is the difference between LF and HF sound

40-why it is so difficult control sound waves compared to light waves.