

Midterm Review I TechnoSonics 2016

People / Groups

Alvin Lucier

Beatles

Brian Eno

Brian Wilson

Charlie Christian

Christian Marclay

Clara Rockmore

Daphne Oram

Dave Smith

David Bowie

David Tudor

Donald Buchla

Edgard Varèse

Éliane Radigue

Emile Berliner

Erik Satie

Frank Zappa

Grandmaster Flash

George Martin

Herbie Hancock

Hugh Le Caine

Iannis Xenakis

Isao Tomita

Jimi Hendrix

Jimmy Smith

John Cage

John Chowning

Karlheinz Stockhausen

Keith Emmerson

La Monte Young

Laurie Spiegel

Leon Theremin

Les Paul

Luigi Russolo

Maria Chavez

Maryanne Amacher

Maurice Martenot

Max Matthews

Meredith Monk

Morton Subotnick

Muddy Waters

Pauline Oliveros

Pierre Schaeffer

Pink Floyd

Raymond Scott

Robert Moog

Steve Reich

Tangerine Dream

Terry Riley

Thaddeus Cahill

Thomas Edison

Velvet Underground

Vladimir Ussachevsky

Wendy Carlos

Technologies / Terms

Acoustics	Fundamental	Periodic vs Aperiodic
Additive Synthesis	Fuzzface	Phonograph
ADSR Envelope	Gramophone	Polyphonic
Ambient Music	Hammond Organ	Process Music
l'Objet Sonore	Hertz	Psychoacoustics
Loudness / Amplitude	Inverse square law	Reverberation
Pitch / Frequency	Magnetic Tape	Room resonance
Quality / Timbre	Minimoog	Slip-cueing
Arp 2500	Modular Synthesizer	Single-coil pickup
Art of Noises	Modulation	Spectral Analysis
Basic Waveforms	Mono vs. Stereo	Studio Album
Bouncing (to tape)	Monophonic	Tape techniques
Chance procedures	Music Concrete	Telharmonium
Concept Album	Muzak	Theremin
Decibels	Oblique Strategies	The Log
Electronium	Ondes Martenot	Tonewheel
Elektronische Musik	Oramics	Trautonium
Filters Types	Harmonic Series	Tremolo
Fourier's Theorem	Period	VCOs & VCFs
Vibrato	Wah-Wah	

Listening

Imaginary Landscape #1 (1939)	John Cage
Oraison (1937)	Oliver Messiaen
Poème Électronique (1958)	Edgard Varèse
Concret Ph (1958)	Iannis Xenakis
Etude Aux Allures (1958)	Pierre Schaeffer
Klangstudie II (1952)	Herbert Eimart
Gesang Der Jünglinge (Song Of The Youths) (1956)	Karlheinz Stockhausen
Studie 2 (1958)	Karlheinz Stockhausen
Dripsody (1955)	Hugh Le Caine
Oramics (~1962)	Daphne Oram
Doctor Who Theme (1963)	Delia Derbyshire & Ron Grainer
Good Vibrations (1966)	The Beach Boys
A Day In The Life (1967)	The Beatles
Brown Shoes Don't Make It (1967)	Frank Zappa (Mothers Of Invention)
Come Out (1966)	Steve Reich
Purple Haze (1967)	Jimi Hendrix
Piano Phase (1967)	Steve Reich
Arthesis (1973)	Eliane Radigue
In C (1964)	Terry Riley
I Am Sitting In A Room (1969)	Alvin Lucier
Silver Apples of the Moon (1967)	Morton Subotnick
Lightworks (1950s)	Raymond Scott
Book of Days (excerpt) (1988)	Meredith Monk
Two-part Invention in F major (1968)	Wendy Carlos
The Champ (1956)	Jimmy Smith
Music for Airports – 2/1 (1978)	Brian Eno
Swan by Saint-Saens	Clara Rockmore (performer)

Sample Questions

Part I: Listening

You will hear 8 excerpts. Identify the early electronic instrument featured in each one.

- a. Theremin
- b. Ondes Martenot
- c. Electric Guitar
- d. Moog Modular
- e. Hammond Organ

- 1) fill in correct letter from list above
- 2) fill in correct letter from list above
- 3) fill in correct letter from list above
- 4) fill in correct letter from list above
- 5) fill in correct letter from list above

Name that tune:

- a. Poème Électronique | Edgard Varèse
- b. Brown Shoes Don't Make It | Mothers of Invention (Frank Zappa)
- c. Come Out | Steve Reich
- d. Doctor Who Theme | Delia Derbyshire & Ron Grainer
- e. Arthesis | Eliane Radigue

- 6) fill in correct letter from list above
- 7) fill in correct letter from list above
- 8) fill in correct letter from list above
- 9) fill in correct letter from list above

Choose the primary technique used in the following examples:

- a. Phase Music
- b. Elektronische Musik
- c. Multi-track Studio Album
- d. Live Record Manipulation
- e. Ambient Music

- 10) fill in correct letter from list above
- 11) fill in correct letter from list above
- 12) fill in correct letter from list above

Part II: Multiple Choice

- 1) Around the turn of the 20th Century, inventor Thaddeus Cahill premiered his massive new electronic instrument, the _____:
 - a. Theremin
 - b. Trautonium
 - c. Hammond Organ
 - d. Telharmonium
 - e. Ondes Martenot

- 2) The Theremin is difficult to play because _____:
 - a. it creates bursts of random noise.
 - b. the performer primarily doesn't touch it.
 - c. it overheats and crashes often.
 - d. the computer processor was very slow.
 - e. the keyboard presented the performer with a microtonal 13 keys for each octave.

- 3) What frequency is 1 octave above 300Hz?
 - a. 100Hz
 - b. 150Hz
 - c. 600Hz
 - d. 900Hz
 - e. 300kHz

Part III: True / False

- a) true
- b) false

- 1) The range of human hearing is approximately 20Hz to 50kHz.
- 2) White noise contains an equal amount of energy in all frequency bands.