

Midterm Review | TechnoSonics 2017

People / Groups

Alvin Lucier	Halim El-Dabh	Miles Davis
Beatles	Herbie Hancock	Moody Blues
Bebe Barron	Herbert Einmart	Morton Subotnick
Brian Eno	Hugh Le Caine	Muddy Waters
Brian Wilson	Iannis Xenakis	Paul Lansky
Charlie Christian	Isao Tomita	Pauline Oliveros
Christian Marclay	James Brown	Phillip Glass
Clara Rockmore	Jimi Hendrix	Pierre Schaeffer
Daphne Oram	Jimmy Smith	Pink Floyd
Dave Smith	John Cage	Raymond Scott
David Bowie	Karlheinz Stockhausen	Robert Moog
David Tudor	Keith Emmerson	Steve Reich
Delia Derbyshire	Kraftwerk	Sister Rosetta Tharpe
DJ Kool Herc	La Monte Young	Tangerine Dream
Donald Buchla	Laurie Spiegel	Terry Riley
Edgard Varèse	Leon Theremin	Thaddeus Cahill
Éliane Radigue	Les Paul	Thomas Edison
Emile Berliner	Luigi Russolo	Velvet Underground
Erik Satie	Maria Chavez	Vladimir Ussachevsky
Frank Zappa	Maryanne Amacher	Wendy Carlos
Grandmaster Flash	Max Matthews	
George Martin	Meredith Monk	
Yoko Ono		

Technologies / Terms

Acoustics	Fuzzface	Phonograph
Additive Synthesis	Gramophone	Polyphonic
ADSR Envelope	Hammond Organ	Process Music
Ambient Music	Hertz	Psychoacoustics
l'Objet Sonore	Inverse square law	Reverberation
Loudness / Amplitude	Magnetic Tape	Room resonance
Pitch / Frequency	Minimoog	Slip-cueing
Quality / Timbre	Modular Synthesizer	Single-coil pickup
Arp2500	Modulation	Spectral Analysis
Art of Noises	Mono vs. Stereo	Studio Album
Basic Waveforms	Monophonic	Tape techniques
Bouncing (to tape)	Music Concrete	Telharmonium
Chance procedures	Muzak	Theremin
Concept Album	Oblique Strategies	The Log
Decibels	Ondes Martenot	Tonewheel
Elektronische Musik	Oramics	Trautonium
Filter Types	Harmonic Series	Tremolo
Fourier's Theorem	Period	VCOs & VCFs
Fundamental	Periodic vs Aperiodic	
Vibrato	Wah-Wah	

Listening

Imaginary Landscape #1 (1939)	John Cage
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
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)
Study 21 (1961)	Conlon Nancarrow
Phaedra (1974)	Tangerine Dream
Trans-Europe Express (1977)	Kraftwerk
The Robots (1978)	Kraftwerk

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.