

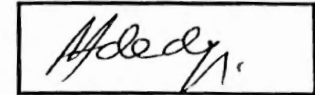
ELIZADE UNIVERSITY, ILARA-MOKIN, ONDO STATE

**FACULTY OF HUMANITIES
DEPARTMENT OF PERFORMING AND FILM ARTS
FIRST SEMESTER EXAMINATION
2017/2018 ACADEMIC SESSION**

COURSE CODE: PFA 303

COURSE TITLE: **ACOUSTIC & ELECTRONIC FOR THE PFA**

DURATION: 2 Hours



HOD's SIGNATURE

INSTRUCTION: Answer one and any two questions. (Write legibly and explain yourself clearly).

| Question No. | | Total Mark |
|--------------|---|--|
| 1. | <p>a. Write short notes on any 4 of the following.</p> <ul style="list-style-type: none"> i. Decibel ii. Consonance and Dissonance iii. Diffraction of sound iv. Reflection of sound v. Refraction of sound vi. Impact transmission vii. Why Wind instruments go out of tune. viii. Amplitude | <p>2marks 2marks 2marks 2marks 2marks 2marks 2marks 2marks</p> |
| | <p>b. Explain the difference between Noise and a Musical Tone</p> | <p>4marks</p> |
| 2. | <p>a. Discuss fully the nature of Sound, from the state of vibration to audibility with</p> <p>b. i. A sound was generated at a frequency of 120cps and a velocity of 1100 ft/sec Calculate the wavelength.</p> <p>ii. A sound was generated at a frequency of 256cps and a wavelength of 8 ft. Calculate the velocity.</p> <p>iii. What is the frequency of a note of a wave-length 8ft? Assume the velocity of Sound = 1,100ft. per second.</p> | <p>8marks 4marks 4marks 4marks</p> |

- a. Discuss fully the Doppler Effect **10marks**
- b. A man standing on a particular sport at the front of Faculty building saw an ambulance with its wailing siren coming from health center and zoomed past him at a speed of 100ft/sec. to campus gate. If the frequency of the siren is 500cps, calculate the apparent frequency
(1) as it approaches the man, and
(2) as it recedes from him (Given: speed of sound in air = 1100ft/sec). **10marks**
- a. State the Law of Pythagoras **5marks**
- b. State the Law of Mersenne **5marks**
- c. Discuss fully the acoustic applications of each of the above laws **10marks**
- a. Discuss fully the overtone with regard to color in music. **5marks**
- b. The frequency of the fundamental of an organ pipe is 64cps. Calculate the frequency of its 1st 10 overtone **10marks**
- c. State the principle of Formants and Transients and give acoustic implication. **5marks**
- a. Discuss various microphones used in enhancing the film and sound production. **10marks**
- b. Why do we need a separate microphone for the film production? **5marks**
- c. Discuss basic tools needed for a home studio **5marks**