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# MANIPAL ACADEMY OF HIGHER EDUCATION

SEVENTH SEMESTER B. ARCH. DEGREE EXAMINATION – NOVEMBER 2019

SUBJECT: ARC-14-409.2 - ADVANCED ACOUSTICS AND ILLUMINATION  
(2014 SCHEME)

Tuesday, November 12, 2019

Time: 14:00 – 17:00 Hrs.

Max. Marks : 50

✍ Answer any FIVE full questions.

1. Mention any four acoustical defects and develop a acoustical treatment plan in each case.  
(2½ marks × 4 = 10 marks)
- 2A. Identify the possible acoustical defects in an auditorium.
- 2B. How are the issues addressed in typical acoustical design for multipurpose hall?  
(5+5 = 10 marks)
3. What are the sound defects that occur in a live music (Jazz) cafe? How can they be solved?  
Mention two types of acoustical material used and elaborate on their installation process.  
(3+3+4 = 10 marks)
- 4A. What are the key parameters/considerations in choosing a daylighting system?
- 4B. Mention two daylighting system without shading.  
(4+6 = 10 marks)
5. Explain the significance of the following in an illumination design:
  - 5A. Illumination Level
  - 5B. Uniformity of Illumination
  - 5C. Colour of Light
  - 5D. Shadows
  - 5E. Glare

(2 marks × 5 = 10 marks)
- 6A. Suggest a suitable illumination design for retail interiors - citing the considerations for the same.
- 6B. Detail the design with neat explanatory sketches.  
(5+5 = 10 marks)

