

Registration No :

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Total Number of Pages : 01

B.Arch.  
EAR853

8<sup>th</sup> Semester Regular / Back Examination 2017-18  
**BARRIER FREE ENVIRONMENT**

**BRANCH : B.Arch**

**Time : 3 Hours**

**Max Marks : 70**

**Q.CODE : C405**

**Answer Question No.1 which is compulsory and any five from the rest.  
The figures in the right hand margin indicate marks.**

- Q1 Answer the following questions: write short notes on : (2 x 10)**
- a) Barrier free mobility devices
  - b) Semi-Ambulatory type of disability
  - c) Door Thresholds
  - d) Standard size of the interior space of a disable friendly lift.
  - e) Tactile Warning Strip
  - f) Dropped Kerbs
  - g) Directional Tile/Block
  - h) Positional Tile/Block
  - i) Luminous Contrast
  - j) Slip Resistance
- Q2 a) Define barrier free environment. (5)**  
**b) Elaborate different types of disabilities that should be addressed while designing barrier free environment. (5)**
- Q3 a) Briefly explain the requirements for barrier free access route. (5)**  
**b) Explain with neat sketches the standard and specification for barrier free toilet. (5)**
- Q4 a) What are the special design features required for a residential building for a person with impaired vision? (5)**  
**b) What are the design considerations for provision of public information or service counters? (5)**
- Q5 a) What are the standards for accessible car parking spaces designated for the use of persons with a disability? (5)**  
**b) Write down barrier free design requirement for pedestrians. (5)**
- Q6 a) Briefly explain the special requirements for accessible lifts. (5)**  
**b) Explain the technical details for designing ramps. (5)**
- Q7 Explain the requirements for lighting provisions in various areas with respect to the accessible environment. (10)**
- Q8 Write short answer on any TWO : (5 x 2)**
- a) Floor materials for person with impaired vision.
  - b) Passage width for wheelchairs. Explain with neat sketches.
  - c) Braille and Tactile Sign
  - d) Grab Rails