

Please write your answers on a **white paper** using **pencils**. When you complete your exam, **scan** your sheet into a **pdf file** which must not exceed **5 mb**. You need to submit your answers by **uploading** this pdf file to online.yildiz.edu.tr **before the end of exam hours**, other means of transfer or late submissions cannot be acceptable. Make sure that your **handwriting** and **scanned document** are **legible**. One sheet of paper with short, precise answers should be preferred. Expressions in Turkish or any other language will not be evaluated.

Questions:

1. Define the basic properties of plate, tempered, laminated, obscured and insulating glass (2p x 5) with short sentences. Draw a simple sketch (1p x 5) for each product. Give an example for each type of glass that an architect should prefer it and explain the reason briefly (1p x 5).
2. Please answer each question separately:
 - a) What kind of a physical change may happen if a building product is exposed to heat (2 p)? Draw a simple sketch to show before and after situation (2 p).
 - b) If a building product has pores, how does this aspect affect its ability to transfer heat (2 p)?
 - c) If a building product has closed pores, will there be any physical change when this product is exposed to water in liquid state (2 p)? What is the reason for your answer (2 p)?
 - d) If a building product has open pores, how does this aspect affect its ability to transfer water vapor (2 p)? What is the reason for your answer (2 p)?
 - e) If a building product has open pores, how does this product behave when it encounters a certain level of noise? Will it absorb, reflect or transfer the sound (2 p)? What is the reason for your answer (2 p)?
3. Please explain the strength and vulnerability against water of plywood, fiberboard, OSB, particle board with synthetic and cement binder separately (1p x 5). Draw a simple sketch that defines the basic properties (1p x 5) for each type.
4. How can steel products be protected against rusting and corrosion? Please give five examples by writing short definitions (2p x 5) and drawing sketches (2p x 5) for each example.
5. Watch the video of "[8 Habits of Successful Architects](#)" by 30 x 40 Design Workshop on Youtube. Select five habits that you find most important, summarize them in your own words (1p x 5) and write short explanations why you choose them (1p x 5).
6. Define the concept(s) (4 p) of Sendai Mediatheque by Toyo Ito in your own words briefly. Identify four building products used in this building which represent the concept(s) (1p x 4) best in your opinion. Explain why you choose these products and in which way they represent the idea(s) with short sentences (2p x 4) and simple sketches (1p x 4). You can watch this [video](#) as a reference.