

## Engineering

1. Give the definition of a one-family house, as laid down in the building law.
2. Give the division of buildings into groups in terms of height, as used to define the technical and usable requirements.
3. Describe the requirements regarding access for the disabled to a multi-family house.
4. Describe the requirements regarding access for the disabled to a public utility building.
5. Describe the requirements regarding the distance of parking places for motor cars from the elements of the building and the borders of the building plot.
6. Give the dimension of parking places for motor cars for perpendicular and parallel parking.
7. Give the requirements on the width of the access road in an open space carpark, with various options of parking places (perpendicular, parallel and at an angle).
8. Give the requirements on the insulation of residential rooms under regarding from the technical conditions.
9. Quote and discuss one definition of architecture, give the name of the author. E.g.: Vitruvius: Architecture is a science enriched with knowledge from various fields, used in any other type of art. It consist of Practice and Theory.
10. Give three characteristics of a multi-generational one-family house.
11. Give and discuss the types of one-family houses.
12. Characterise the impact of structural solutions on the form of a multi-family house.
13. Discuss the aesthetic and practical conditions of the use of wood on building facades.
14. Discuss the aesthetic and practical conditions of the use of natural stone on building facades.
15. Explain what an escape route is and what its width depends on.
16. Explain what an escape route is and what its length depends on.
17. Discuss three types of systems of multi-family houses in terms of the methods of internal communication solutions.
18. Discuss three types of multi-family house systems in terms of spatial arrangement and their relation to the street.
19. Discuss the functions and importance of the entrance area in a multi-family house.
20. Discuss the functions and importance of the entrance area in a public utility building.
21. Discuss the functions and importance of the entrance area in a school.
22. Give the types of designed ventilation in residential buildings and discuss the constraints of their applications.
23. Discuss the rules of shaping basic functional areas in a flat and discuss the relations between the rooms.
24. Give the basic requirements regarding sanitary facilities in a flat in terms of their size and equipment.
25. Give the basic requirements regarding sanitary facilities in public utility buildings in terms of their size, location and accessibility.
26. Discuss the basic rules of designing the audience area in public utility buildings.
27. List the functional areas in a school and discuss the constraints of their location in the building and in terms of directions of the world.
28. List the elements of methods of correct organization of an office work station.
29. List and characterize the life cycle phases of a building.
30. Explain what digital fabrication is and give three examples of its uses in architecture.
31. Say what the abbreviation BIM stands for and discuss the role of BIM in the design and maintenance of a building.
32. Give three characteristics of a correctly designed classroom.
33. Explain the concept of the clean route and the dirty route and say in what buildings these are applicable.
34. Discuss two chosen factors which impact how material forms and solutions are shaped in traditional rural architecture.

35. Discuss the characteristics of regional architecture in a chosen region of Poland.
36. List and characterize the elements of a contemporary farmstead.
37. Explain what rapid prototyping is and discuss its impact on the process of the design and realization of an architectural object.
38. Say where the rules of ethics of the profession of architect are laid down and what institutions supervise that they are followed.
39. Provide at least four anthropogenic characteristics of a rural landscape.
40. Discuss the impact of a farmstead on an open landscape.
41. Explain the concept of regional architecture.
42. Discuss the properties and use of dispersed, indirect and direct light in architecture.
43. Explain the differences of the concepts of scale and proportions in architecture.
44. Explain what parametric modelling in architecture consists of.
45. Give three architectural features characterizing exhibition buildings.
46. Give three architectural features characterizing multi-family houses.
47. Give three architectural features characterizing school buildings.
48. Give the differences between raster and vector files, and then discuss the formats of computer files used to save architectural graphics.
49. Define and discuss the concepts: multimedia transmission and interactive transmission.
50. Define the concept of the model and give the types of models used in architectural design.