- 1. What are the fundamental types of input devices used in computer graphics, and how do they facilitate user interaction with graphical applications?
- 2. Describe the concept of clients and servers in the context of input and interaction. How does this architecture work, and what advantages does it offer in the development of interactive systems?
- 3. Explain the purpose of display lists in computer graphics. How do they improve rendering efficiency, and what types of graphical data are typically stored in display lists?
- 4. How can display lists be utilized in modeling to optimize the rendering of complex 3D scenes? Provide an example of a scenario where display lists are particularly beneficial.
- 5. What is event-driven programming, and how does it relate to capturing and responding to user input in interactive graphics applications?
- 6. Discuss the concept of "menus picking" in interactive graphics. How are menus typically implemented, and how can users select options from these menus?
- 7. When building interactive models, what are the key considerations for creating a user-friendly and engaging experience for the audience?
- 8. How are interactive programs animated to provide a dynamic and responsive user experience, and what are some techniques for achieving smooth animations in real-time graphics?
- 9. What principles should be considered when designing interactive programs to ensure logical and intuitive user interactions?
- 10. Can you explain the role of logic operations in interactive graphics and how they contribute to creating responsive and visually engaging applications?
- 11. Provide examples of real-world applications or industries where effective input and interaction design are critical for user satisfaction and functionality.
- 12. What are the challenges and considerations when developing interactive programs that need to work across various input devices, such as touchscreens, keyboards, and gesture-based interfaces?

- 13. What are curved surfaces in computer graphics, and how do they differ from flat or planar surfaces in terms of representation and rendering?
- 14. Explain the concept of quadric surfaces. What are some examples of quadric surfaces, and how are they defined mathematically?
- 15. In OpenGL, what are quadric-surface functions, and how are they used to render objects with quadric surfaces?
- 16. How can quadric surfaces be employed in modeling real-world objects or geometric shapes, and what are the advantages of using them in computer graphics?
- 17. Describe the principles and mathematics behind Bezier spline curves. How are control points used to define and manipulate Bezier curves?
- 18. What are some practical applications of Bezier spline curves in computer graphics and design, such as in modeling and animation?
- 19. Explain the concept of Bezier surfaces and how they extend the idea of Bezier curves to represent complex 3D shapes.
- 20. In OpenGL, what are the corresponding curves and surface functions that developers can utilize to create and manipulate Bezier curves and surfaces?
- 21. Discuss the advantages and challenges of using Bezier surfaces in 3D modeling and design, particularly in comparison to other surface modeling techniques.
- 22. Can you provide examples of real-world projects or industries where the use of Bezier curves and surfaces, in conjunction with OpenGL, has led to innovative and visually appealing results?
- 23. How do OpenGL curve functions and surface functions contribute to the development of interactive 3D applications, and what capabilities do they offer to developers in terms of user interaction and visualization?
- 24. What are the considerations and best practices for integrating curved surfaces, such as Bezier curves and surfaces, into real-time 3D graphics applications while ensuring performance and visual fidelity?