M.Tech Augmented Reality and Virtual Reality

Sample Questions:

Q1. What is the rank of the matrix
$\begin{bmatrix} 1 & 2 \\ 3 & 6 \end{bmatrix}$?
A. 0
B. 1
C. 2
D. 3
Answer: B. 1

Q2. If the probability of rain today is 0.3, what is the probability that it will not rain today?
A. 0.3
B. 0.5
C. 0.7
D. 1.0
Answer: C. 0.7

Q3. Which physical phenomenon is primarily responsible for the formation of rainbows?
A. Refraction and reflection
B. Diffraction
C. Polarization
D. Interference
Answer: A. Refraction and reflection

Q4. Gravity affects simulation dynamics by influencing:
A. Light behavior
B. Object velocity and acceleration
C. Audio frequency
D. Frame rate
Answer: B. Object velocity and acceleration

Q5. Which sorting algorithm repeatedly selects the smallest (or largest) element and moves it to the correct position?
A. Bubble Sort
B. Insertion Sort
C. Merge Sort
D. Selection Sort
Answer: D. Selection Sort

Q6. Which of the following best describes a stack data structure?
A. FIFO
B. LIFO
C. FILO
D. LILO
Answer: B. LIFO

Q7. Which OOP principle is being applied when a subclass inherits methods from a superclass?
A. Polymorphism
B. Abstraction
C. Inheritance
D. Encapsulation
Answer: C. Inheritance

Q8. What is the binary representation of the decimal number 9?
A. 1000
B. 1001
C. 1010
D. 1100
Answer: B. 1001

Q9. Which image format supports animation?
A. JPEG
B. PNG
C. GIF
D. BMP
Answer: C. GIF

Q10. Typography deals primarily with:
A. Visual motion
B. Image rendering
C. Text layout and font styles
D. Color correction
Answer: C. Text layout and font styles