



# ABV- Indian Institute of Information Technology & Management, Gwalior

## EE201: Signals and Systems

Minor Examination (Session 2023–24)

Maximum Time: 1.5 Hours

Max Marks: 25

---

**Note: Attempt all questions. Neat diagrams carry weightage.**

1. Define and classify signals as energy and power signals with suitable examples. (5 Marks)
2. State and prove the time-shifting and time-scaling properties of signals. (5 Marks)
3. Find whether the following signals are periodic or not: (a)  $\sin(5t)$ , (b)  $\cos(3\pi t)$ , (c)  $e^{j2t}$ . (5 Marks)
4. Determine the convolution of two unit step signals  $u(t)$  and  $u(t - 2)$ . (5 Marks)
5. Write short notes on any one: (a) Dirac Delta Function (b) Discrete-Time Unit Impulse. (5 Marks)