

# Atal Bihari Vajpayee Indian Institute of Information Technology & Management, Gwalior

## IT009: Digital Watermarking

Minor Examination (Session 2024–25)

**Maximum Time: 1.5 Hours**

**Max Marks: 25**

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*Note: Attempt all questions. Use neat sketches and mathematical expressions wherever necessary.*

1. Define robustness and imperceptibility in watermarking. Why is there a trade-off between the two? (5 Marks)
2. Explain the Discrete Wavelet Transform (DWT) approach for embedding watermarks. (5 Marks)
3. Differentiate between fragile watermarking and robust watermarking with real-life use cases. (5 Marks)
4. Explain the role of correlation in watermark detection. Provide a simple mathematical derivation. (5 Marks)
5. Write short notes on: (a) Digital Rights Management (DRM) (b) Forensic watermarking (5 Marks)