

## Information Technology Act, 2000

### Chapter II - Digital Signature and Electronic Signature

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(1) Subject to the provisions of this section, any subscriber may authenticate an electronic record by affixing his digital signature.

(2) The authentication of the electronic record shall be effected by the use of asymmetric crypto system and hash function which envelop and transform the initial electronic record into another electronic record.

Explanation.--For the purposes of this sub-section, "hash function" means an algorithm mapping or translation of one sequence of bits into another, generally smaller, set known as "hash result" such that an electronic record yields the same hash result every time the algorithm is executed with the same electronic record as its input making it computationally infeasible--

(a) to derive or reconstruct the original electronic record from the hash result produced by the algorithm;

(b) that two electronic records can produce the same hash result using the algorithm.

(3) Any person by the use of a public key of the subscriber can verify the electronic record.

(4) The private key and the public key are unique to the subscriber and constitute a functioning key pair.

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### Section 3A - Electronic signature

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<sup>1</sup>[3A. Electronic signature.--

(1) Notwithstanding anything contained in section 3, but subject to the provisions of sub-section (2), a subscriber may authenticate any electronic record by such electronic signature or electronic authentication technique which--

(a) is considered reliable; and

(b) may be specified in the Second Schedule.

(2) For the purposes of this section any electronic signature or electronic authentication technique shall be considered reliable if--

(a) the signature creation data or the authentication data are, within the context in which they are used, linked to the signatory' or, as (the case may be, the authenticator and to no other person;

(b) the signature creation data or the authentication data were, at the time of signing, under the control of the signatory or, as the case may be, the authenticator and of no other person;

(c) any alteration to the electronic signature made after affixing such signature is detectable;

(d) any alteration to the information made after its authentication by electronic signature is detectable; and

(e) it fulfils such other conditions which may be prescribed.

(3) The Central Government may prescribe the procedure for the purpose of ascertaining whether electronic signature is that of the person by whom it is purported to have been affixed or authenticated.

(4) The Central Government may, by notification in the Official Gazette, add to or omit any electronic signature or electronic authentication technique and the procedure for affixing such signature from the Second Schedule:

Provided that no electronic signature or authentication technique shall be specified in the Second Schedule unless such signature or technique is reliable.

(5) Every notification issued under sub-section (4) shall be laid before each House of Parliament.]

