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Commissioner of Patents

Washington, D.C. 20231

FORM PTO-1594
MRD 0-2498
(Rev. 6-95)

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TRADEMARK ONLY

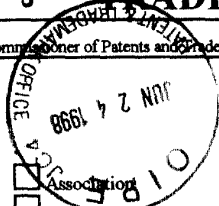
U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original document or certified copy thereof.

1. Name of conveying Party(ies):
University Online, Inc.

Individual(s)
 General Partnership
 Corporation-State Delaware
 Other _____

Additional name(s) of conveying party(ies) attached? Yes No



2. Name and Address of receiving Party(ies):
Name: UOL Publishing, Inc.
 Internal Address: 8251 Greensboro Drive, Suite 500
 Street Address: _____
 City: McLean State: VA Zip: 22102

3. Nature of conveyance:
 Assignment
 Security Agreement
 Other _____

Merger
 Change of Name

Execution Date: September 17, 1996

Individual(s) citizenship _____
 Association _____
 General Partnership _____
 Limited Partnership _____
 Corporation-State Delaware
 Other _____

If assignee is not domiciled in the United States, a domestic representative designation is attached: Yes No
 (Designations must be a separate document from Assignment)
 Additional name(s) & address(es) attached? Yes No

4. Application number(s) or registration number(s):
 A. Trademark Application No.(s)/Application
 B. Trademark Registration No.(s)/ Registration Date
2,005,148, 2,005,147 AND 2,005,128

Additional sheet attached? Yes No

5. Name and address of party to whom correspondence concerning this matter should be mailed:
Jacobson, Price, Holman & Stern, PLLC
 400 7th Street, N.W.
 Washington, DC 20004
 Tel. 202-638-6666

Attorney Docket No. 11092/M03375

6. Total number of applications and registrations involved: 3

7. Total fee (37 CFR 3.41)..... \$ \$40.00
 Enclosed
 Any deficiencies in enclosed fees are authorized to be charged to deposit account

8. Deposit Account No.: 06-1358

DO NOT USE THIS SPACE

9. Statement and Signature.
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Andrew I. Gray, IV Name of Person Signing
[Signature] Signature
June 24, 1998 Date

Total number of pages including cover sheet, attachments, and document: 26

JCH 301-206

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 02 FC:462 50.00 CH

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<DOCUMENT>
 <TYPE> Ex-3.1
 <DESCRIPTION> EXHIBIT 3.1
 <TEXT> AMENDED AND RESTATED

CERTIFICATE OF INCORPORATION
 OF
 UNIVERSITY ONLINE, INC

I, University Online, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "Corporation"), does hereby certify that its Certificate of Incorporation, originally filed with the Delaware Secretary of State on March 22, 1985 under the name "INTELMACH CORPORATION", as amended, is hereby amended and restated in its entirety as follows:

ARTICLE I

The name of the Corporation is UOL Publishing, Inc.

ARTICLE II

The address of its registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, Wilmington, County of New Castle, Delaware 19801. The name of its registered agent is The Corporation Trust Company.

ARTICLE III

The general nature of the business and the object and purposes to be transacted, promoted or carried on by the Corporation are:

- (1) to design, produce and market certain advanced technology products;
- (2) to hold equity and other interests in other corporations and other legal entities engaged in such activities; and
- (3) to engage in any other lawful act or activity for which corporations may be organized under the General Corporation Law of Delaware.

ARTICLE IV

A. Classes of Stock.

The Corporation is authorized to issue two classes of stock to be designated, respectively, Common Stock and Preferred Stock. The total number of shares of stock which the Corporation has authority to issue is Seventy Million (70,000,000) shares, par value One Cent (\$0.01) per share, of which Thirty-Six Million (36,000,000) shares shall be designated "Common

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Stock," and Thirty-Four Million (34,000,000) shares shall be designated "Preferred Stock." Of the 34,000,000 authorized shares of Preferred Stock, Twelve Million (12,000,000) of such shares shall be designated "Series A Preferred Stock," Six Million (6,000,000) shares of such stock shall be designated as "Series B Preferred Stock" and Six Million (6,000,000) of such shares shall be designated as "Series B-1 Preferred Stock."

B. Rights, Preferences, Privileges and Restrictions of Preferred Stock. Shares of Preferred Stock may be issued from time-to-time in one or more series, each such series to have such distinctive designation or title as may be stated and expressed in this Article IV or as may be fixed by the Board of Directors prior to the issuance of any shares of such series. Each such series of Preferred Stock shall have such voting powers, designations, preferences and relative, participating, optional or other special rights, and such qualifications, limitations, or restrictions as shall be stated and expressed in this Article IV or in the resolution or resolutions providing for the issue of such shares of Preferred Stock as may be adopted from time-to-time by the Board of Directors, in accordance with the laws of the State of Delaware.

(1) Rank. The Series B Preferred Stock, the Series B-1 Preferred Stock and the Series A Preferred Stock shall, with respect to dividend rights and with respect to rights upon liquidation, winding up or dissolution, rank pari passu with one another, and senior and prior in right to (a) each class of Common Stock of the Corporation, (b) any series of preferred stock hereafter created and (c) any other equity interests (including, without limitation, warrants, stock appreciation rights, phantom stock rights, profit participation rights in debt instruments or other rights with equity features, calls or options exercisable for or convertible into such capital stock or equity interests) in the Corporation that by its terms rank junior to the Series A Preferred Stock, the Series B Preferred Stock or the Series B-1 Preferred Stock (all of such classes or series of capital stock and other equity interests, including, without limitation, all classes of Common Stock of the Corporation, are collectively referred to as "Junior Securities").

(2) Redemption

(a) Series A Preferred Stock. There shall be no redemption or sinking fund obligation with respect to the Series A Preferred Stock.

(b) Series B and Series B-1 Preferred Stock.

(1) Shares of Series B Preferred Stock and Series B-1 Preferred Stock shall be entitled to the rights set forth below in this Subsection (b) (with all references in this Subsection (b) to a repurchase price per share to be adjusted proportionally in respect of fractional shares, rounded to the nearest cent for each holder or group of affiliated holders).

(1) At any time or from time to time on or after the date five (5) years after the Series B Issue Date, each holder of Series B Preferred Stock or Series B-1 Preferred Stock, as the case may be, shall have the right to request the Corporation to purchase all or any portion of the shares of such series of stock held by each such holder,

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and upon the exercise of such right, the Corporation shall purchase such shares of stock, (such rights being referred to as the "Put"). Such holder may exercise the Put by providing the Corporation with notice of the exercise thereof specifying the number of shares of Series B Preferred Stock or Series B-1 Preferred Stock, as the case may be, with respect to which it is exercising the Put (such notice being referred to as a "Request Notice"). The Corporation shall, as soon as practicable, but in no event later than sixty (60) days after the date of receipt of such Request Notice, redeem all of the shares of Series B Preferred Stock or Series B-1 Preferred Stock, as the case may be, with respect to which the Put has been exercised, paying to the holder of such shares of stock exercising the Put an amount in cash for each such share equal to the Series B Liquidation Preference.

(iii) Upon the surrender of the certificate or certificates representing (or a lost certificate affidavit together with indemnity reasonably satisfactory to the Corporation relating to) the shares of Series B Preferred Stock or Series B-1 Preferred Stock, as the case may be, to be repurchased by the Corporation pursuant to this Subsection (b) duly endorsed for transfer or accompanied by stock powers duly executed in blank, the Series B Liquidation Preference in respect of such shares shall be paid to the order of the person whose name appears on such certificate or certificates in immediately available funds. Each surrendered certificate shall be canceled and retired.

(3) Liquidation Preference

(a) Series A Preferred Stock.

(i) In the event of any liquidation, dissolution or winding-up of the affairs of the Corporation (a "Liquidation Event"), whether voluntary or involuntary, before any payment of cash or distribution of other property shall be made to the holders of Common Stock, the holders of Series A Preferred Stock shall be entitled to receive out of the assets of the Corporation legally available for distribution to its stockholders, an amount per share equal to (as such amount shall be adjusted to reflect subdivisions and combinations of shares and stock dividends), with respect to each outstanding share of Series A Preferred Stock, \$0.75, together with all accrued but unpaid dividends with respect to each such share (the "Series A Liquidation Amount"). If the assets and funds legally available for distribution among the holders of Series A Preferred Stock shall be insufficient to permit the payment to such holders of the full preferential amount, then such assets and funds shall be distributed ratably among the holders of Series A Preferred Stock and all other classes and series of Preferred Stock ranking (as to any such distribution) on a parity with the Series A Preferred Stock in proportion to the total preferential amount which each such holder is entitled to receive.

(b) Series B and Series B-1 Preferred Stock. Upon a Liquidation Event, the holders of the Series B Preferred Stock or Series B-1 Preferred Stock shall be entitled, before any assets of the Corporation shall be distributed among or paid over to the holders of Junior Securities, to receive from the assets of the Corporation available for distribution to stockholders

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in immediately available funds, an amount per share equal to: (y) if the total value of the Fully Diluted Shares at the time of the Liquidation Event is less than or equal to the Liquidation Threshold Amount, then the holders shall be entitled to (i) \$1.60 (proportionally adjusted from time to time to reflect stock dividends, stock splits, recapitalization or any other stock subdivision or combination), plus (ii) the amount such holders would be entitled to receive had they converted their shares of Series B Preferred Stock into shares of Series B Conversion Stock immediately prior to such Liquidation Event, in accordance with Section (B)(5)(b) hereof, plus (iii) all declared or accrued but unpaid dividends on such shares from the applicable Issue Date to the date of the Liquidation Event, other than dividends payable in Additional Preferred Stock; or (z) if the total value of the Fully Diluted Shares at the time of the Liquidation Event is more than the Liquidation Threshold Amount, then the holders shall be entitled to the amounts represented in subsections (y)(ii) and (iii) of this Section (B)(3)(b) (such amount in (y) or (z) being sometimes referred to herein as the "Series B Liquidation Preference"). If the assets of the Corporation legally available for distribution shall be insufficient to permit the payment in full to the holders of the Series B Preferred Stock and the Series B-1 Preferred Stock of the Series B Liquidation Preference, then the entire assets of the Corporation legally available for distribution shall be distributed ratably among such holders and all other classes and series of preferred stock ranking (as to any such distribution) on a parity with the Series B Preferred Stock and the Series B-1 Preferred Stock.

(c) Any assets remaining after the distributions pursuant to Section (B)(3)(a) and Subsection (B)(3)(b) above shall be distributed on a pro rata basis to the holders of Common Stock.

(d) For purposes of this Section (B)(3)(b), a Liquidation Event shall be deemed to be occasioned by, or to include, the Corporation's sale of all or substantially all of its assets or the consolidation or merger of the Corporation with or into any other corporation or corporations, or the effecting by the Corporation of a transaction or series of related transactions after the Series B Issue Date in which more than 50% of the voting power of the Corporation is disposed.

(4) Voting Rights.

(a) Series A Preferred Stock. In addition to the rights otherwise provided by law or this Certificate of Incorporation, the holders of Series A Preferred Stock shall be entitled to vote, together with the holders of Common Stock, as one class on all matters submitted to a vote of stockholders, in the same manner and with the same effect as the holders of Common Stock. In any such vote, each share of Series A Preferred Stock shall entitle the holder thereof to the number of votes per share that equals the numbers of shares of Common Stock (including fractional shares) into which each share of Series A Preferred Stock is then convertible, rounded to the nearest decimal place. The holders of each share of Series A Preferred Stock shall be entitled to receive notice, together with the holders of each share of Common Stock, of all stockholder meetings.

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(b) Series B and Series B-1 Preferred Stock.

(i) Except as otherwise provided by law or by Section (B)(4)(b)(ii) below, the holders of the Series B Preferred Stock or Series B-1 Preferred Stock, as the case may be, shall be entitled to vote on all matters submitted to the stockholders for a vote together with the holders of the Common Stock voting together as a single class, with each holder of Common Stock entitled to one vote for each share of Common Stock held by such holder and each holder of Series B Preferred Stock or Series B-1 Preferred Stock entitled to one vote for each share of Common Stock issuable upon conversion of the Series B Preferred Stock or Series B-1 Preferred Stock held by such holder at the time the vote is taken.

(ii) The holders of the Series B Preferred Stock or Series B-1 Preferred Stock shall vote as a separate class in all matters which may impact, in any material adverse respect as a separate class, the Series B Preferred Stock or Series B-1 Preferred Stock, including, but not limited to (a) any amendment to the Certificate of Incorporation or Bylaws, (b) the creation of any new series of preferred stock or the issuance of additional shares of capital stock of the Corporation that ranks senior to or on a parity with the Series B Preferred Stock or Series B-1 Preferred Stock, (c) the issuance of bank loans or debt securities in excess of \$3,000,000, (d) the declaration and payment of any dividend or distribution or repurchase of any shares of capital stock of the Corporation (other than (i) payments in respect of fractional shares, and (ii) from employees, consultants, directors or parties to acquisitions by the Corporation pursuant to contractual repurchase upon termination or indemnification rights in favor of the Corporation), (e) any merger, combination, recapitalization, reconsolidation, acquisition or sale of all or substantially all of the assets of the Corporation, and (f) the issuance of 10% or more of the outstanding capital stock (on a fully diluted basis) of the Corporation in a single transaction (or a series of transactions to related individuals or entities) other than pursuant to a Qualified Series B Public Offering (as defined in Article VIII hereof).

(5) Conversion.

(a) Series A Preferred Stock. The holders of Series A Preferred Stock shall have conversion rights as follows (the "Series A Conversion Rights"):

(i) Right to Convert.

1 Optional Conversion. Each share of Series A Preferred Stock shall be convertible at the option of the holder thereof, at any time after the date of issuance of such shares, at the office of the Corporation or any transfer agent for Series A Preferred Stock, into one fully paid and nonassessable share of Common Stock (the "Series A Conversion Rate"). The initial Series A Conversion Rate shall be subject to adjustment as set forth below.

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2. Mandatory Conversion. Outstanding shares of Series A Preferred Stock shall be automatically converted into shares of Common Stock at the Series A Conversion Rate (a) upon the consummation of an underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, by the Corporation of its Common Stock, pursuant to which Common Stock is offered to the public at a price of at least \$0.75 per share (subject to adjustment for stock splits, combinations and other similar events) ("Qualified Series A Public Offering") or (b) immediately prior to the consummation of a consolidation or merger of the Corporation with or into another corporation, or any sale or transfer of all or substantially all of the assets of the Corporation, pursuant to which the holders of Common Stock (assuming the conversion of all outstanding Series A Preferred Stock into Common Stock at the Series A Conversion Rate) will receive cash or securities or property having a value (as determined by the Corporation's Board of Directors) of at least \$0.75 per share of Common Stock (subject to adjustment for stock splits, combinations and other similar events). The holder of any shares of Series A Preferred Stock converted into Common Stock in connection with such a public offering or other transaction shall be entitled to payment of all declared but unpaid dividends, if any, payable with respect to such shares up to and including the date of the closing of such public offering or other transaction.

3. Upon conversion of the Series A Preferred Stock, the Common Stock so issued shall be duly and validly issued, fully paid and nonassessable shares of the Corporation.

(i) Mechanics of Conversion. No fractional shares of Common Stock shall be issued upon conversion of Series A Preferred Stock and the number of shares issuable upon such conversion shall be calculated to the nearest whole share. Except as provided in Section (B)(5)(a)(i)(2), before any holder of Series A Preferred Stock shall be entitled to convert the same into full shares of Common Stock, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for the Series A Preferred Stock, and shall give written notice by mail, postage prepaid, to the Corporation at its principal corporate office, of the election to convert the same. The Corporation shall, not later than 45 days thereafter, issue and deliver at such office to such holder of Series A Preferred Stock, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as aforesaid (after aggregating all shares of Common Stock issuable to such holder of Series A Preferred Stock upon conversion of the number of shares of Series A Preferred Stock at the time being converted) and a check in an amount equal to accrued but unpaid dividends as to this date with respect to such shares converted. In addition, if less than all of the shares represented by such certificates are surrendered for conversion pursuant to Section (B)(5)(a)(i)(1), the Corporation shall issue and deliver to such holder a new certificate for the balance of the shares of Series A Preferred Stock not so

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converted. Except as provided in Section (B)(5)(a)(i)(2), such conversion shall be deemed to have been made immediately prior to the close of business on the date of the surrender of the shares of such Series A Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock as of such date.

(iii) Adjustments to Series A Conversion Price.

1. Adjustments for Dividends, Distributions or Subdivisions. In the event the Corporation shall issue additional shares of Common Stock pursuant to a stock dividend, stock distribution or subdivision, the Series A Conversion Rate in effect immediately prior to such stock dividend, stock distribution or subdivision shall, concurrently with such stock dividend, stock distribution or subdivision, be proportionately increased.

2. Adjustments for Combinations or Consolidations. In the event the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, the Series A Conversion Rate in effect immediately prior to such combination or consolidation shall, concurrently with the effectiveness of such combination or consolidation, be proportionately decreased.

3. Reorganization; Merger. Upon any capital reorganization of the Corporation or any reclassification of outstanding shares of Common Stock, or in case of any consolidation or merger of the Corporation with or into another corporation in which the Corporation is not the surviving corporation, or in case of any sale or transfer of all or substantially all of the assets of the Corporation, each share of Series A Preferred Stock then outstanding would, without consent of any holders of the Series A Preferred Stock, become convertible only into the current amount of securities or property or cash receivable upon the capital reorganization, reclassification, consolidation, merger, sale, or transfer by a holder of the number of shares of Common Stock into which such share of Series A Preferred Stock could have been converted immediately prior thereto.

(iv) No Impairment. The Corporation will not, by amendment of its Certificate of Incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation, but will, at all times in good faith, assist in the carrying out of all the provisions of this Section (B)(5) and in the taking of all such action as may be necessary or appropriate in order to protect the Series A Conversion Rights of the holders of the Series A Preferred Stock against impairment.

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(v) Reservation of Common Stock Issuable Upon Conversion. The Corporation shall, at all times, reserve and keep available out of its authorized but unissued shares of Common Stock solely for the purposes of effecting the conversion of the Series A Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of Series A Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then-outstanding shares of Series A Preferred Stock, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes.

(vi) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Rate pursuant to this Section (B)(5), the Corporation at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Series A Preferred Stock a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon the written request at any time of any holder of Series A Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (a) all such adjustments and readjustments, (b) the Series A Conversion Rate at the time in effect, and (c) the number of shares of Common Stock which at the time would be received upon the conversion of such Series A Preferred Stock.

(vii) Notices of Record Date. In the event that the Corporation shall propose at any time:

1. to declare any dividend or distribution upon the Common Stock, whether in cash, property, stock or other securities, whether or not a regular cash dividend and whether or not out of earnings or earned surplus; or

2. to offer for subscription to the holders of any class or series of its capital stock any additional shares of stock of any class or series or any other rights; or

3. to effect any reclassification or recapitalization; or

4. to merge or consolidate with or into any other corporation, to sell, lease or convey all or substantially all its property or business, or to liquidate, dissolve or wind up; then, in connection with each such event, the Corporation shall send to the holders of the Series A Preferred Stock:

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(i) at least 10 days' prior written notice of the date on which a record shall be taken for such dividend, distribution or subscription rights (and specifying the date on which the holders of Common Stock shall be entitled thereto) or for determining rights to vote in respect of the matters referred to in 3. and 4. above; and

(ii) in the case of the matters referred to in 3. and 4. above, at least 10 days' prior written notice of the date of a stockholders meeting at which a vote on such matters shall take place (and specifying the date on which the holders of Common Stock shall be entitled to exchange their Common Stock for securities or other property deliverable upon the occurrence of such event and the amount of securities or other property deliverable upon such event).

Each such written notice shall be given personally or by first class mail, postage prepaid, addressed to the holders of Series A Preferred Stock at the address for each such holder as shown on the books of the Corporation.

(b) Series B and Series B-1 Preferred Stock.

(i) Conversion Procedure.

1. At any time and from time to time, any holder of Series B Preferred Stock or Series B-1 Preferred Stock may convert all or any portion of such series of stock, including any shares of Additional Preferred Stock, held by such holder into a number of shares of Series B Conversion Stock computed by multiplying the number of shares to be converted by \$1.60 and dividing the result by the Series B Conversion Price or the Series B-1 Conversion Price, as applicable, (as defined below) then in effect.

2. Each conversion of Series B Preferred Stock or Series B-1 Preferred Stock shall be deemed to have been effected as of the close of business on the date on which notice of election of such conversion is delivered to the Corporation by such holder. Until the certificates representing the shares of Series B Preferred Stock or Series B-1 Preferred Stock which are being converted have been surrendered and new certificates representing shares of the Series B Conversion Stock shall have been issued by the Corporation, such certificate(s) evidencing the shares of Series B Preferred Stock or Series B-1 Preferred Stock being converted shall be evidence of the issuance of such shares of Series B Conversion Stock. At such time as such conversion has been effected, the rights of the converting holder shall cease and the Person or Persons in whose name or names any certificate or certificates for shares of Series B Conversion Stock are to be issued upon such conversion shall be deemed

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to have become the holder or holders of record of the shares of Series B Conversion Stock represented thereby.

3 Notwithstanding any other provision hereof, if a conversion of shares is to be made in connection with a Public Offering, the conversion of such shares may, at the election of the holder thereof, be conditioned upon the consummation of the Public Offering, in which case such conversion shall not be deemed to be effective until the consummation of the Public Offering.

4. As soon as practicable after a conversion has been effected in accordance with clause 2. above, the Corporation shall deliver, as soon as practicable, but in no event later than sixty (60) days after receipt of notice of conversion and stock certificate(s) from the converting holder, to the converting holder:

(A) a certificate or certificates representing, in the aggregate, the number of shares of Series B Conversion Stock issuable by reason of such conversion, in the name or names and in such denomination or denominations as the converting holder has specified; and

(B) a certificate representing any shares which were represented by the certificate or certificates delivered to the Corporation in connection with such conversion but which were not converted.

5. The issuance of certificates for shares of Series B Conversion Stock upon conversion of Series B Preferred Stock or Series B-1 Preferred Stock shall be made without charge to the converting holders for any issuance tax in respect thereof or other cost incurred by the Corporation in connection with such conversion and the related issuance of shares of Series B Conversion Stock, except for any transfer or similar tax payable as a result of issuance of a certificate to other than the registered or beneficial holder of the shares being converted. Upon conversion of any shares of Series B Preferred Stock or Series B-1 Preferred Stock, the Corporation shall use its best efforts to take all such actions as are necessary in order to insure that the Series B Conversion Stock issuable with respect to such conversion shall be validly issued, fully paid and nonassessable.

6. The Corporation shall not close its books against the transfer of Series B Preferred Stock or Series B-1 Preferred Stock or of Series B Conversion Stock issued or issuable upon conversion thereof in any manner which interferes with the timely conversion of such stock. The Corporation shall assist and cooperate with any converting holder

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required to make any governmental filings or obtain any governmental approval prior to or in connection with any conversion of shares hereunder (including, without limitation, making any filings reasonably required to be made by the Corporation).

7. No fractional shares of Series B Conversion Stock or scrip representing fractional shares shall be issued upon conversion of shares of Series B Preferred Stock or Series B-1 Preferred Stock. If more than one share of Series B Preferred Stock or Series B-1 Preferred Stock shall be surrendered for conversion at one time by the same record holder, the number of full shares of Series B Conversion Stock issuable upon the conversion thereof shall be computed on the basis of the aggregate number of shares of Series B Preferred Stock or Series B-1 Preferred Stock so surrendered by such record holder. Instead of any fractional share of Series B Conversion Stock otherwise issuable upon conversion of any shares of the Series B Preferred Stock or Series B-1 Preferred Stock, the Corporation shall pay a cash adjustment in respect of such fraction in an amount equal to the same fraction of current per share fair market value of the Series B Conversion Stock as determined in good faith by the Board of Directors on such basis as it considers appropriate.

8. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Series B Conversion Stock, solely for the purpose of issuance upon the conversion of the Series B Preferred Stock or Series B-1 Preferred Stock, such number of shares of Series B Conversion Stock as are issuable upon the conversion of all outstanding Series B Preferred Stock and Series B-1 Preferred Stock. All shares of Series B Conversion Stock which are so issuable shall, when issued, be duly and validly issued, fully paid and nonassessable and free from all taxes, liens and charges, other than those created or agreed to by the holder. The Corporation shall use its best efforts to take all such actions as may be necessary to assure that all such shares of Series B Conversion Stock may be so issued without violation of any applicable law or governmental regulation or any requirements of any domestic securities exchange upon which shares of Series B Conversion Stock may be listed (except for official notice of issuance which shall be immediately delivered by the Corporation upon each such issuance).

(ii) Series B Conversion Price and Series B-1 Conversion Price.

1. "Series B Conversion Price" and "Series B-1 Conversion Price" for the Series B Preferred Stock and the Series B-1 Preferred Stock, respectively, shall initially mean the Initial Series B Conversion Price and the Initial Series B-1 Conversion Price, respectively.

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described in this Section (B)(5)(b), as the same may be subsequently reduced from time to time in accordance with this Section (B)(5)(b).

2. The "Initial Series B Conversion Price" and the "Initial Series B-1 Conversion Price" shall each be \$1.60; provided, however, that if the Corporation:

(A) successfully consummates an initial Public Offering on or prior to December 31, 1996, in which the total value of the Fully Diluted Shares (assuming that if the initial public offering price takes into account the issuance of all Fully Diluted Shares, then such initial public offering price shall be the value per share for purposes of calculating the total value of the Fully Diluted Shares) is less than or equal to the Liquidation Threshold Amount, then each of the Initial Series B Conversion Price and the Initial Series B-1 Conversion Price shall, upon consummation of such Public Offering, be equal to the lesser of (i) the Series B Conversion Price or the Series B-1 Conversion Price then in effect, as the case may be, and (ii) the greater of (x) \$0.80 and (y) one-half of the initial public offering price per share; or

(B) successfully consummates an initial Public Offering after December 31, 1996 but within one year of the Series B Issue Date in which the total value of the Fully Diluted Shares (assuming that if the initial public offering price takes into account the issuance of all Fully Diluted Shares, then such initial public offering price shall be the value per share for purposes of calculating the total value of the Fully Diluted Shares) is less than or equal to the Liquidation Threshold Amount, then each of the Initial Series B Conversion Price and the Initial Series B-1 Conversion Price shall, upon consummation of such Public Offering, be equal to the lesser of (i) the Series B Conversion Price or the Series B-1 Conversion Price then in effect, as the case may be, and (ii) one-half the initial public offering price per share; or

(C) has not successfully consummated an initial Public Offering within one year of the Series B Issue Date, then each of the Initial Series B Conversion Price and the Initial Series B-1 Conversion Price shall be equal to \$1.35, and, if the Corporation has net revenues for the fiscal year ending December 31, 1997 of less than \$9,500,000.00 or a net loss for such fiscal year of more than \$1,500,000, then each of the Initial Series B Conversion Price and the Initial Series B-1 Conversion Price shall not be equal to \$1.35, but shall instead be equal to \$1.06.

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3. If and whenever on or after the Series B Issue Date the Corporation issues or sells, or in accordance with Section (B)(5)(b)(iii) is deemed to have issued or sold, any shares of its Common Stock or other instrument or security convertible into or exchangeable for Common Stock for a consideration per share less than the initial or applicable Series B Conversion Price (the "Sale Price"), then forthwith upon such issue or sale the applicable Series B Conversion Price shall be reduced to equal the Sale Price.

4. If and whenever on or after the Series B Issue Date the Corporation issues or sells, or in accordance with Section (B)(5)(b)(iii) is deemed to have issued or sold, any shares of its Common Stock or other instrument or security convertible into or exchangeable for Common Stock for a consideration per share less than the initial or applicable Series B-1 Conversion Price and at least one share of Series B-1 Preferred Stock is outstanding, then forthwith upon such issue or sale the applicable Series B-1 Conversion Price shall be recalculated by multiplying the then applicable Series B-1 Conversion Price by a fraction of which (x) the numerator shall be (1) the number of shares of Common Stock Deemed Outstanding immediately prior to such issue or sale, plus (2) the number of shares of Common Stock which the aggregate consideration received or deemed received by the Corporation in accordance with Section (B)(5)(b)(iii) for the total number of shares of Common Stock issued and sold or deemed issued and sold in accordance with Section (B)(5)(b)(iii) would purchase at such Series B-1 Conversion Price as in effect immediately prior to such issue and sale, and (y) the denominator shall be the number of shares of Common Stock Deemed Outstanding immediately after such issue or sale;

provided, however, the foregoing shall not apply to the issuance of up to 504,000 shares of Common Stock to employees, directors or consultants pursuant to the Corporation's existing or future stock plans.

(iii) Effect on Series B Conversion Price and the Series B-1 Conversion Price of Certain Events. For purposes of determining the applicable adjusted Series B Conversion Price and the Series B-1 Conversion Price under Section (B)(5)(b)(ii), the following shall be applicable:

1. Issuance of Rights or Options. If the Corporation in any manner grants any rights or options to subscribe for or to purchase Common Stock ("Options") or any stock or other securities convertible into or exchangeable for Common Stock ("Convertible Securities"), and the price per share for which Common Stock is issuable upon the exercise

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of such Options or upon conversion or exchange of such Convertible Securities is less than the applicable Series B Conversion Price or Series B-1 Conversion Price in effect immediately prior to the time of the granting of such Options, then the total maximum number of shares of Common Stock issuable upon the exercise of such Options or upon conversion or exchange of the total maximum amount of such Convertible Securities shall be deemed to be outstanding and to have been issued and sold by the Corporation at the time of the granting of such Options for such price per share. For purposes of this paragraph, the "price per share for which Common Stock is issuable" shall be determined by dividing (A) the total amount, if any, received or receivable by the Corporation as consideration for the granting of such Options, plus the minimum aggregate amount of additional consideration payable to the Corporation upon exercise of all such Options, plus in the case of such Options which relate to Convertible Securities, the minimum aggregate amount of additional consideration, if any, payable to the Corporation upon the issuance or sale of such Convertible Securities and the conversion or exchange thereof (such amount is the consideration "deemed received" for purposes of Section (B)(5)(b)(ii) above), by (B) the total maximum number of shares of Common Stock issuable upon the exercise of such Options or upon the conversion or exchange of all such Convertible Securities issuable upon the exercise of such Options. Upon the expiration of any Option or termination of any conversion right of any Convertible Security issuable upon exercise of any Option, the issuance of which resulted in an adjustment of the Series B Conversion Price or the Series B-1 Conversion Price, if any such Option shall expire or conversion right of any Convertible Security shall terminate and shall not have been exercised or converted, as applicable, the Series B Conversion Price or the Series B-1 Conversion Price, as applicable, shall be recalculated immediately upon such expiration and effective immediately upon such expiration shall be increased to the price it would have been (but reflecting any other adjustments to the Series B Conversion Price or the Series B-1 Conversion Price made pursuant to the provisions of this Section (B)(5)(b) after the issuance of such Options) had the adjustment of the Series B Conversion Price or the Series B-1 Conversion Price made upon the issuance of such Options been made on the basis of the issuance of only those Options actually exercised or Convertible Securities issuable upon exercise of such Options actually converted, as applicable. No further adjustment of the applicable Series B Conversion Price or the Series B-1 Conversion Price shall be made when Convertible Securities are actually issued upon the exercise of such Options or when Common Stock is actually issued upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

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2. Issuance of Convertible Securities. If the Corporation in any manner issues or sells any Convertible Securities and the price per share for which Common Stock is issuable upon conversion or exchange thereof is less than the applicable Series B Conversion Price or the Series B-1 Conversion Price in effect immediately prior to the time of such issue or sale, then the maximum number of shares of Common Stock issuable upon conversion or exchange of such Convertible Securities shall be deemed to be outstanding and to have been issued and sold by the Corporation at the time of the issuance or sale of such Convertible Securities for such price per share. For the purposes of this paragraph, the "price per share for which Common Stock is issuable" shall be determined by dividing (A) the total amount received or receivable by the Corporation as consideration for the issue or sale of such Convertible Securities, plus the minimum aggregate amount of additional consideration, if any, payable to the Corporation upon the conversion or exchange thereof (such amount is the consideration "deemed received" for purposes of Section (B)(5)(b)(ii) above), by (B) the total maximum number of shares of Common Stock issuable upon the conversion or exchange of all such Convertible Securities. Upon the termination of any conversion right of any Convertible Security, the issuance of which resulted in an adjustment of the Series B Conversion Price or the Series B-1 Conversion Price, as applicable, if any such conversion right of any Convertible Security shall terminate and shall not have been converted, the Series B Conversion Price or the Series B-1 Conversion Price, as applicable, shall be recalculated immediately upon such termination and effective immediately upon such termination shall be increased to the price it would have been (but reflecting any other adjustments to the Series B Conversion Price or the Series B-1 Conversion Price, as applicable, made pursuant to the provisions of this Section (B)(5)(b) after the issuance of such Convertible Securities) had the adjustment of the Series B Conversion Price or the Series B-1 Conversion Price made upon the issuance of such Convertible Securities been made on the basis of the issuance of only those Convertible Securities actually converted. No further adjustment of the applicable Series B Conversion Price or the Series B-1 Conversion Price shall be made when Common Stock is actually issued upon the conversion or exchange of such Convertible Securities, and if any such issue or sale of such Convertible Securities is made upon exercise of any Options for which adjustments of the applicable Series B Conversion Price or the Series B-1 Conversion Price had been or are to be made pursuant to other provisions of this Section (B)(5)(b), no further adjustment of the applicable Series B Conversion Price or the Series B-1 Conversion Price shall be made by reason of such issue or sale.

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3. Change in Option Price or Conversion Rate. If the purchase price provided for in any Options, the additional consideration, if any, payable upon the conversion or exchange of any Convertible Securities, or the rate at which any Convertible Securities are convertible into or exchangeable for Common Stock change at any time, the applicable Series B Conversion Price and the Series B-1 Conversion Price in effect at the time of such change shall be readjusted to the applicable Series B Conversion Price or the Series B-1 Conversion Price, as applicable, which would have been in effect at such time had such Options or Convertible Securities still outstanding provided for such changed purchase price, additional consideration or changed conversion rate, as the case may be, at the time initially granted, issued or sold.

(iv) Subdivision or Combination of Common Stock. If the Corporation at any time subdivides (by any stock split, stock dividend, recapitalization or otherwise) one or more classes of its outstanding shares of Common Stock into a greater number of shares, or if the Corporation at any time combines (by reverse stock split or otherwise) one or more classes of its outstanding shares of Common Stock into a smaller number of shares, the applicable Series B Conversion Price and the Series B-1 Conversion Price in effect immediately prior to such subdivision or combination shall be proportionately adjusted.

(v) Reorganization, Reclassification, Consolidation, Merger or Sale. Any recapitalization, reorganization, reclassification, consolidation, merger, sale of all or substantially all of the Corporation's assets to another Person or other transaction which is effected in such a manner that holders of Common Stock are entitled to receive (either directly or upon subsequent liquidation) stock, securities or assets with respect to or in exchange for Common Stock is referred to herein as an "Organic Change." Prior to the consummation of any Organic Change, the Corporation shall make appropriate provisions (in form and substance reasonably satisfactory to the holders of the majority of the shares of each class of the Series B Preferred Stock and Series B-1 Preferred Stock then outstanding) to insure that each of the holders of Series B Preferred Stock or Series B-1 Preferred Stock shall thereafter have the right to acquire and receive, in lieu of or in addition to (as the case may be) the shares of Series B Conversion Stock immediately theretofore acquirable and receivable upon the conversion of such holder's stock, such shares of stock, securities or assets as such holder would have received in connection with such Organic Change if such holder had converted its Series B Preferred Stock or Series B-1 Preferred Stock into Series B Conversion Stock immediately prior to such Organic Change. In each such case, the Corporation shall also make appropriate provisions (in form and substance reasonably

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satisfactory to the holders of a majority of the shares of each class of the Series B Preferred Stock and Series B-1 Preferred Stock then outstanding) to insure that the provisions of this Section (b)(5)(b)(v) shall thereafter be applicable to the Series B Preferred Stock, the Series B-1 Preferred Stock and to the shares of stock, securities or assets received by each holder upon such Organic Change. The Corporation shall not effect any Organic Change, consolidation, merger or sale unless prior to the consummation thereof, the successor corporation (if other than the Corporation) resulting from consolidation or merger or the corporation purchasing such assets assumes by written instrument (in form and substance reasonably satisfactory to the holders of the majority of the shares of the Series B Preferred Stock and Series B-1 Preferred Stock then outstanding) the obligation to deliver to each such holder such shares of stock, securities or assets as, in accordance with the foregoing provisions, such holder may be entitled to acquire.

(vi) Certain Events. If an event not specifically enumerated in this Section (B)(5)(b) occurs which has substantially the same economic effect on the Series B Preferred Stock or Series B-1 Preferred Stock as those specifically enumerated shall occur, then this Section (B)(5)(b) shall be construed liberally, mutatis mutandis, in order to give the Series B Preferred Stock and the Series B-1 Preferred Stock the benefit of the protections provided under this Section (B)(5)(b). The Corporation's Board of Directors shall make an appropriate adjustment in the applicable Series B Conversion Price and the Series B-1 Conversion Price so as to protect the rights of the holders of such stock; provided that no such adjustment shall increase the applicable Series B Conversion Price or the Series B-1 Conversion Price as otherwise determined pursuant to this Section (B)(5)(b) or decrease the number of shares of Series B Conversion Stock issuable upon conversion of each share of Series B Preferred Stock or the Series B-1 Preferred Stock.

(vii) Notices.

1. Promptly upon any adjustment of the applicable Series B Conversion Price or the Series B-1 Conversion Price, the Corporation shall give written notice thereof to all holders of such stock, setting forth in reasonable detail and certifying the calculation of such adjustment.

2. The Corporation shall give written notice to all holders of Series B Preferred Stock and Series B-1 Preferred Stock at least 10 days prior to the date on which the Corporation closes its books or takes a record (A) with respect to any dividend or distribution upon Common Stock, (B) with respect to any pro rata subscription offer to

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holders of Common Stock, or (C) for determining rights to vote with respect to any Organic Change, dissolution or liquidation.

3 The Corporation shall give written notice to the holders of Series B Preferred Stock and Series B-1 Preferred Stock at least twenty (20) days prior to the date on which any Organic Change shall take place, which notice may be one and the same as that required by 2. above.

(viii) Mandatory Conversion. All of the outstanding shares of Series B Preferred Stock and Series B-1 Preferred Stock will be automatically converted in accordance with the terms of this Section (B)(5)(b) at the closing of a Series B Qualified Public Offering. Any such mandatory conversion shall be effected only at the time of and subject to the closing of the sale of such shares pursuant to such Public Offering

(6) Dividends.

(a) Series A Preferred Stock

(i) Each issued and outstanding share of Series A Preferred Stock shall entitle the holder of record thereof to receive out of funds legally available therefor, cumulative annual dividends at the rate of seven (7%) percent of the Series A Liquidation Amount per annum, which dividends shall be payable in shares of Series A Preferred Stock, on the earlier to occur of (A) a Qualified Series A Public Offering or (B) a Liquidation Event, and which shall be declared and set apart or paid before dividends of any kind may be declared upon the Common Stock and any other series of preferred stock that are junior to the Series A Preferred Stock (the Common Stock and any other such series of preferred stock is junior to the Series A Preferred Stock are sometimes hereinafter referred to as the "Junior Securities" or a "Junior Security") and before distributions of any kind may be made upon the issued and outstanding Junior Securities. Said annual dividend upon the issued and outstanding Series A Preferred Stock shall be cumulative and shall be deemed to accrue from and after the date of issuance, whether earned, or whether there be funds legally available therefor, or whether said dividends shall have been declared. The amount of dividends payable for the initial one year dividend period or any period shorter than a full dividend period shall be computed on the basis of a 360-day period of twelve 30-day months.

(ii) Only after full dividends upon the issued and outstanding Series A Preferred Stock as aforesaid for all past annual dividend periods shall have been paid, without interest and whenever full dividends upon the issued and outstanding Series A Preferred Stock as aforesaid for the then current annual dividend period shall have been declared and either paid or a sum sufficient for the payment thereof set aside in full without interest, may the Board of Directors declare, set aside, or pay any cash dividends, and/or may make share distributions

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of the authorized but unissued Common Stock of the Corporation and/or its treasury Common Stock if any, and/or may make distributions of bonds or property of the Corporation, including the shares or bonds of other corporations with respect to any Junior Securities. Any reference to "distributions" in this paragraph contained shall not be deemed to include any distributions made in connection with any liquidation, dissolution, or winding-up of the Corporation, whether voluntary or involuntary; nor shall any such reference to "distributions" in relation to issued and outstanding shares be deemed to limit, curtail or divest the authority of the Board of Directors to make any proper distributions, including distributions of authorized but unissued Common Stock, in relation to its treasury Common Stock, if any.

(b) Series B and Series B-1 Preferred Stock.

(i) The holders of Series B Preferred Stock or Series B-1 Preferred Stock shall be entitled to receive, when, as and if declared by the Board of Directors out of funds legally available for the purpose, cumulative dividends in shares of Series B Preferred Stock or Series B-1 Preferred Stock, respectively, ("Additional Preferred Stock"). Dividends on each share of Series B Preferred Stock or Series B-1 Preferred Stock shall accrue at the rate of 7% per annum, compounded annually, on the Dividend Liquidation Preference (as defined in Article VIII hereof). Such dividends shall commence to accrue on each share of Series B Preferred Stock or Series B-1 Preferred Stock from the applicable Issue Date whether or not declared by the Board of Directors and whether or not there shall be capital, surplus or earnings sufficient to lawfully pay such dividends and shall continue to accrue thereon until the earlier of (i) the date the Dividend Liquidation Preference (as defined in Article VIII hereof) is paid in full in cash with respect to each such share in accordance with Sections (B)(2)(b) or (B)(3)(b) hereof, and (ii) the date such share is converted into Common Stock in accordance with Section (B)(5)(b) hereof.

(ii) Such dividends shall be issued and paid with respect to a share of Series B Preferred Stock or Series B-1 Preferred Stock, as the case may be, upon the earliest of (i) conversion of such share into Series B Conversion Stock, or (ii) the occurrence of a Liquidation Event (as defined in Section (B)(3)(b) hereof)

(iii) If at any time the Corporation pays less than the total amount of dividends then accrued with respect to the Series B Preferred Stock and the Series B-1 Preferred Stock required to be paid at such time, such payment shall be distributed ratably among the holders thereof based upon the aggregate accrued but unpaid dividends on the relevant Series B Preferred Stock or Series B-1 Preferred Stock held by each holder

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(iv) So long as any shares of Series B Preferred Stock or Series B-1 Preferred Stock are outstanding, the Corporation will not declare, pay or set apart for payment any dividends (except dividends payable in Common Stock of the Corporation) or make any other distribution on or redeem, purchase or otherwise acquire any Junior Securities and will not permit any Subsidiary or other Affiliate (using funds of the Corporation or any Subsidiary) to redeem, purchase or otherwise acquire for value, any Junior Securities, except as permitted in Section (B)(4)(b)(ii)(d) hereof. In addition, so long as any shares of Series B Preferred Stock or Series B-1 Preferred Stock are outstanding, the Corporation will not declare, pay or set apart for payment any dividends or make any other distribution on any Series B Preferred Stock or Series B-1 Preferred Stock unless such dividends or distributions are also made on all Series B Preferred Stock and Series B-1 Preferred Stock ratably. Notwithstanding the foregoing provisions of this Section (B)(6)(b)(iv), the Corporation or any Subsidiary may (i) make payments in respect of fractional shares of Junior Securities and (ii) repurchase, redeem or otherwise acquire for value any Junior Securities from any employee or former employee of the Corporation or any Subsidiary in connection with the termination of employment by the Corporation or any Subsidiary or by such employee or former employee, whether by reason of death, disability, retirement or otherwise.

(7) No Reissuance of Preferred Stock. No share or shares of Series A Preferred Stock, Series B Preferred Stock or Series B-1 Preferred Stock acquired by the Corporation by reason of purchase, conversion or otherwise shall be reissued, and all such shares shall be cancelled, retired and eliminated from the shares which the Corporation shall be authorized to issue.

(8) Special Mandatory Conversion.

(a) If at any time a holder of Series B Preferred Stock fails to participate pro rata in a subsequent round of financing of the Corporation with respect to which the Corporation issues or sells securities at a price per share which is less than the applicable Series B Conversion Price then in effect (a "Down Financing"), then all of the shares of Series B Preferred Stock held by such non-participating holder shall automatically and without further action on the part of such holder be converted into an equivalent number of shares of Series B-1 Preferred Stock effective upon the closing of the Down Financing.

(b) The holder of any shares of Series B Preferred Stock converted pursuant to subsection (a) above shall deliver to the Corporation during regular business hours at the office of any transfer agent of the Corporation for such series of stock, or at such other place as may be designated by the Corporation, the certificate or certificates for the shares so converted, duly endorsed or assigned in blank to the Corporation. As promptly as practicable thereafter, the Corporation shall issue and deliver to such holder, at the place designated by such holder, a certificate or certificates for the number of full

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shares of the Series B-1 Preferred Stock to which such holder is entitled. The person in whose name the certificate for such shares of Series B-1 Preferred Stock is to be issued shall be deemed to have become a stockholder of record on the closing date of the Down Financing unless the transfer books of the Corporation are closed on that date, in which event such person shall be deemed to have become a shareholder of record on the next succeeding date on which the transfer books are open.

ARTICLE V

Whenever a compromise or arrangement is proposed between the Corporation and its creditors or any class of them and/or between the Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of the Corporation or of any creditor or stockholder thereof or on the application of any receiver or receivers appointed for the Corporation under the provisions of Section 291 of Title 8 of the Delaware Code or on the application of trustees in dissolution or of any receiver or receivers appointed for the Corporation under the provisions of Section 279 of Title 8 of the Delaware Code, order a meeting of the creditors or class of creditors, and/or of the stockholders or class of stockholders of the Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three-fourths in value of the creditors or class of creditors, and/or of the stockholders or class of stockholders of the Corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of the Corporation as a consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of the Corporation, as the case may be, and also on the Corporation.

ARTICLE VI

The initial By-laws of the Corporation shall be adopted by the Directors of the Corporation; thereafter, the By-laws shall be altered or repealed as provided therein.

ARTICLE VII

To the fullest extent permitted by the General Corporation Law of the State of Delaware as the same exists or may hereafter be amended, a director of the Corporation shall not be liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director.

ARTICLE VIII

The following terms have the meanings specified below:

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(a) Affiliate. The term "Affiliate" shall mean (i) any Person directly or indirectly controlling, controlled by or under direct or indirect common control with the Corporation (or other Specified Person), (ii) any Person who is a beneficial owner of at least 10% of the then outstanding voting capital stock (or options, warrants or other securities which, after giving effect to the exercise thereof, would entitle the holder thereof to hold at least 10% of the then outstanding voting capital stock) of the Corporation (or other Specified Person), (iii) any director or executive officer of the Corporation (or other Specified Person) or Person of which the Corporation (or other Specified Person) shall, directly or indirectly, either beneficially or of record, own at least 10% of the then outstanding equity securities of such Person, and (iv) in the case of Persons specified above who are individuals, Family Members of such Person; provided, however, that no holder of Preferred Stock nor any of their designated members of the Board of Directors shall be an Affiliate of the Corporation for purposes hereof

(b) Board of Directors. The term "Board of Directors" shall mean the Board of Directors of the Corporation.

(c) Common Stock Deemed Outstanding. The term "Common Stock Deemed Outstanding" shall mean, at any given time, the number of shares of Common Stock actually outstanding at such time, plus the number of shares of Common Stock issuable upon conversion of the Series B Preferred Stock or Series B-1 Preferred Stock, as the case may be, plus the number of shares of Common Stock deemed to be outstanding with respect to Options and Convertible Securities pursuant to Section (B)(5)(b) hereof whether or not the Options or Convertible Securities are actually exercisable at such time.

(d) Dividend Liquidation Preference. The term "Dividend Liquidation Preference" shall be an amount per share (as such amount may be adjusted to reflect subdivisions and combinations of shares and stock dividends) equal to, with respect to each outstanding share of Series B Preferred Stock and Series B-1 Preferred Stock, \$1.60, together with all declared or accrued but unpaid dividends with respect to each such share from the Series B Issue Date or the Series B-1 Issue Date, as the case may be, to the date each such share converts into Common Stock

(e) Family Members. The term "Family Members" shall mean, as applied to any individual, any spouse, child, grandchild, parent, brother or sister thereof or any spouse of any of the foregoing, and each trust created for the benefit of one or more of such Persons (other than any trust administered by an independent trustee) and each custodian of property of one or more such Persons.

(f) Fully Diluted Shares. The term "Fully Diluted Shares" shall mean the 26,084,734 shares of Capital Stock of the Corporation outstanding, on a fully diluted basis, on the Series B Issue Date. 26,084,734 was calculated as follows: 14,321,236 shares of common and preferred stock (9,277,524 shares of common stock outstanding plus 4,729,559 shares of preferred stock outstanding plus 314,153 shares of

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preferred stock dividends that had accrued but had not yet been paid) plus 6,121,248 shares issuable pursuant to warrants outstanding ("Warrant Shares") plus 3,186,000 shares issuable or outstanding pursuant to stock option plans ("Option Shares") plus 268,750 shares issuable upon conversion of certain convertible debt outstanding plus 2,187,500 shares of Series B Preferred Stock purchased by the investors on the Series B Issue Date.

(g) Liquidation Threshold Amount. The term "Liquidation Threshold Amount" shall be equal to \$76,209,726 which was calculated on the Series B Issue Date by (i) multiplying the number of Fully Diluted Shares, as defined above, by \$3.20 (\$1.60, the price paid by the purchasers of the Series B Preferred Stock for each such share, multiplied by 2), (ii) subtracting \$5,509,123, the dollar amount arrived at by multiplying 6,121,248 the number of outstanding Warrant Shares, as defined above, on the Series B Issue Date, by \$0.90, the weighted average warrant exercise price on the Series B Issue Date, and (iii) subtracting \$1,752,300, the dollar amount arrived at by multiplying 3,186,000, the number of outstanding Option Shares, as defined above, on the Series B Issue Date, by \$0.55, the weighted average option exercise price on the Series B Issue Date.

(h) Person. The term "Person" shall mean an individual, corporation, partnership, association, trust, joint venture or unincorporated organization or any government, governmental department or any agency or political subdivision thereof.

(i) Public Offering. The term "Public Offering" shall mean any offering by the Corporation of its equity securities to the public pursuant to an effective registration statement under the Securities Act or any comparable statement under any similar federal statute then in force, other than an offering in connection with an employee benefit plan.

(j) Series B Qualified Public Offering. The term "Series B Qualified Public Offering" shall mean the consummation of the Corporation's issuance and sale of its Common Stock in a bona fide firm commitment underwriting pursuant to a registration statement under the Securities Act, the public offering price of which is not less than (i) 175% of the Series B Conversion Price, after giving effect to any adjustment thereto as a result of such offering (or if there is no Series B Preferred Stock outstanding, then the Series B-1 Conversion Price, after giving effect to any adjustment thereto as a result of such offering) per share (appropriately adjusted to reflect subsequent stock issuances, dividends, stock splits, or recapitalizations) and (ii) \$20,000,000 in the aggregate; provided however, that in the event that such offering is consummated on or before December 31, 1996, or in the event that there are no outstanding shares of Series B Preferred Stock or Series B-1 Preferred Stock, then the per share limitation shall not apply.

(k) Securities Act. The term "Securities Act" shall mean the Securities Act of 1933, as amended, or any successor federal statute, and the rules and regulations of

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the Securities and Exchange Commission promulgated thereunder, all as the same shall be in effect from time to time.

(l) Series B Conversion Stock. The term "Series B Conversion Stock" shall mean the shares of Common Stock issuable upon conversion of shares of Series B Preferred Stock or Series B-1 Preferred Stock, as the case may be; provided that if there is a change such that the securities issuable upon conversion of the Series B Preferred Stock or Series B-1 Preferred Stock, as the case may be, are issued by an entity other than the Corporation or there is a change in the class of securities so issuable, then the term "Series B Conversion Stock" shall mean shares of the security issuable upon conversion of such series of stock if such security is issuable in shares, or shall mean the smallest unit in which such security is issuable if such security is not issuable in shares.

(m) Series B Issue Date. The term "Series B Issue Date" shall mean July 19, 1996.

(n) Series B-1 Issue Date. The term "Series B-1 Issue Date" shall mean the date on which a share of Series B-1 Preferred Stock is first issued by the Corporation.

(o) Subsidiary. The term "Subsidiary" shall mean any Person of which the Corporation shall at the time own, directly or indirectly through another Subsidiary, 50% or more of the outstanding voting capital stock (or other shares of beneficial interest with voting rights), or which the Corporation shall otherwise control.

II. By majority written consent effective September __, 1996, the necessary number of shares as required by statute were voted in favor of the above amendment and restatement.

III. The above Amended and Restated Certificate of Incorporation, herein certified, has been duly adopted in accordance with the provisions of Sections 228, 242 and 245 of the General Corporation Law of the State of Delaware. Prompt written notice of the adoption of the amendment and restatement herein certified has been given to those stockholders who have not consented in writing thereto, as provided in Section 228 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, the Corporation has caused this Certificate to be executed by its duly authorized officer this _____ day of September, 1996.

UNIVERSITY ONLINE, INC.

BY: _____

TITLE: _____

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