**Table – 1: Response Rate**

|  |  |  |
| --- | --- | --- |
| **Respondents** | **Count** | **Percentage** |
| Faculty | 43 | 19 |
| Students | 178 | 81 |
| PG | 62 | 35 |
| UG | 116 | 65 |
| **Total** | **221** |   |
| Male | 154 | 70 |
| Female | 67 | 30 |

**Table – 2: Frequency of Library Visit**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Library Visit** | **Faculty** | **PG** | **UG** | **Total** |
| F\* | % | F | % | F | % | F | % |
| Frequently (Two or more visits per week) | 16 | 37.2 | 36 | 58.1 | 48 | 41.4 | 100 | 45.2 |
| Occasionally (A few times a month) | 23 | 53.5 | 14 | 22.6 | 32 | 27.6 | 69 | 31.2 |
| Rarely (a few times a semester) | 3 | 7.0 | 6 | 9.7 | 13 | 11.2 | 19 | 8.6 |
| Very Frequently (Daily) | 1 | 2.3 | 6 | 9.7 | 23 | 19.8 | 30 | 13.6 |
| **Total** | **43** | **100.0** | **62** | **100.0** | **116** | **100.0** | **221** | **100.0** |

\*frequency

**Table – 3: Mean Score Range vs Frequency**

|  |  |  |
| --- | --- | --- |
| **Mean Score (x)** | **No of Items** | **%** |
| x>=2 & x<3 | 2 | 4.5 |
| x>=3 & x<4 | 37 | 84.1 |
| x>=4 & x<=5 | 5 | 11.4 |
| **Total** | **44** | 100 |

**Table – 4: Reliability Statistics**

| **Cronbach's Alpha** | **Cronbach's Alpha Based on Standardized Items** | **N of Items** |
| --- | --- | --- |
| .969 | .970 | 44 |

**Table – 5: Scale Statistics**

| **Mean** | **Variance** | **Std. Deviation** | **N of Items** |
| --- | --- | --- | --- |
| 162.61 | 1230.382 | 35.077 | 44 |

**Table – 6: KMO and Bartlett's Test**

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .932 |
| --- | --- |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 6018.041 |
| Df | 946 |
| Sig. | .000 |

**Graph – 1: Scree Plot**



**Table – 7: Factor Description after EFA**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Factors** | **Item Description** | **Name of the Dimension** | **Number of Items** | **Cronbach’s alpha** |
| Factor – 1 | Attitude , behavior and professionalism shown by Library Staff  | Library Staff | 13 | 0.950989 |
| Factor – 2 | Information resources present in library and catering to the users need | Library Resources | 13 | 0.936936 |
| Factor – 3 | ICT facilities provided at the library to facilitate state-of-the-art service to users | ICT Facilities | 4 | 0.833376 |
| Factor – 4 | Library environment, access to resources etc | Library Environment | 5 | 0.817850 |
| Factor – 5 | Reading room facilities and other user convenience | User Convenience | 3 | 0.799451 |
| Factor – 6 | Security and safety measures at library | Security | 3 | 0.802086 |
| Factor - 7 | Visually appealing facilities at library | Library Aesthetics | 3 | 0.724075 |

**Table – 8: Higher-Order Dimensions of Library Service Quality**

|  |  |  |  |
| --- | --- | --- | --- |
| **Factors** | **Name of the Dimension** | **Number of Items** | **Cronbach’s alpha** |
| Factor – 1 | Library Staff  | 13 | 0.950 |
| Factor – 2 | Library Collection | 11 | 0.919 |
| Factor – 3 | Library services | 10 | 0.898 |
| Factor – 4 | Library infrastructure / environment  | 10 | 0.856 |

**Figure – 1: LSQA Model**



**Appendix – A**

**Item-Total Statistics**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Items** | **Scale Mean if Item Deleted** | **Scale Variance if Item Deleted** | **Corrected Item-Total Correlation** | **Squared Multiple Correlation** | **Cronbach's Alpha if Item Deleted** |
| Library is a pleasant, comfortable and inviting location to carry out study | 158.59 | 1187.166 | 0.564 | 0.588 | 0.969 |
| The library has visually appealing facilities | 158.76 | 1184.634 | 0.577 | 0.568 | 0.969 |
| A gateway for study, learning and research | 158.58 | 1189.771 | 0.504 | 0.583 | 0.969 |
| Library has convenient operating hours | 158.62 | 1182.403 | 0.571 | 0.734 | 0.969 |
| Facilities for using personal laptops are adequate | 159.31 | 1191.044 | 0.409 | 0.553 | 0.969 |
| Group study facilities are adequate | 159.47 | 1186.594 | 0.447 | 0.495 | 0.969 |
| Individual sit availability is adequate and comfortable | 158.44 | 1187.372 | 0.498 | 0.574 | 0.969 |
| Access to computers to support study / research is adequate | 159.39 | 1175.897 | 0.587 | 0.612 | 0.969 |
| Library has modern equipment (photocopiers, computers, printers) in good condition | 159.64 | 1172.835 | 0.616 | 0.705 | 0.969 |
| I feel safe and secure towards my personal belongings in Library | 159.21 | 1169.422 | 0.589 | 0.625 | 0.969 |
| Library has an appropriate collection of information resources for its users  | 158.79 | 1172.756 | 0.704 | 0.789 | 0.968 |
| The Resources I get from the library are current & accurate | 158.75 | 1180.261 | 0.675 | 0.736 | 0.968 |
| The printed library materials I need are available adequately as per my course need | 158.98 | 1177.573 | 0.6 | 0.652 | 0.969 |
| Handbooks, Subject-Dictionary, Standards and other Special Reference Collection are adequate | 158.93 | 1170.634 | 0.693 | 0.785 | 0.968 |
| The library materials are in good condition (not brittle or falling apart) | 158.69 | 1175.622 | 0.648 | 0.704 | 0.968 |
| Availability of printed Magazines / Journals are relevant to information needs | 158.62 | 1181.562 | 0.642 | 0.713 | 0.968 |
| Number of newspapers are adequate in library | 158.46 | 1188.486 | 0.575 | 0.631 | 0.969 |
| Library information guides are clear and useful | 158.69 | 1183.908 | 0.617 | 0.655 | 0.969 |
| Number and variety of Electronic Resources subscribed are adequate | 159.31 | 1173.837 | 0.659 | 0.714 | 0.968 |
| Library acquires information resource as per user demand | 159.04 | 1173.791 | 0.74 | 0.709 | 0.968 |
| Library is well stocked with collections on Competitive Examinations | 158.93 | 1177.746 | 0.596 | 0.623 | 0.969 |
| Library staff are approachable and welcoming | 158.96 | 1162.608 | 0.736 | 0.832 | 0.968 |
| Library staff understand the needs of users  | 158.92 | 1167.768 | 0.695 | 0.82 | 0.968 |
| Library staff have knowledge and skills to provide answer to user questions | 158.69 | 1166.592 | 0.704 | 0.749 | 0.968 |
| Library staff are well dressed and having neat appearance | 158.49 | 1185.435 | 0.599 | 0.639 | 0.969 |
| When user have problem Library staff are sympathetic and reassuring | 159 | 1162.746 | 0.707 | 0.806 | 0.968 |
| Library staff treat users fairly and without discrimination | 158.82 | 1165.203 | 0.687 | 0.767 | 0.968 |
| Library staff use technology (IT) efficiently | 158.76 | 1172.87 | 0.69 | 0.662 | 0.968 |
| Library staff are making users feel secure about transactions | 158.62 | 1173.385 | 0.696 | 0.776 | 0.968 |
| Library staff are having users' best interest in heart and mind | 158.92 | 1165.863 | 0.761 | 0.83 | 0.968 |
| Library staff provide user education programmes to help users making more effective use of the resource of their interests | 159.18 | 1168.079 | 0.695 | 0.73 | 0.968 |
| Library staff are committed to their duty and responsibility | 158.98 | 1167 | 0.694 | 0.766 | 0.968 |
| The library provides services at the promised time | 158.58 | 1173.049 | 0.778 | 0.82 | 0.968 |
| Library staff arranges documents, if not available in the library, from other sources | 158.69 | 1169.847 | 0.732 | 0.752 | 0.968 |
| Taking photocopies and printouts is easy and cost effective | 159.57 | 1167.11 | 0.623 | 0.716 | 0.969 |
| Convenient access to library collections | 158.65 | 1175.401 | 0.702 | 0.738 | 0.968 |
| Service hours fixed keeping in view the users convenience | 158.65 | 1179.271 | 0.626 | 0.781 | 0.969 |
| Quality of collection in terms of currency and subject relevance is up to the mark | 158.72 | 1178.45 | 0.706 | 0.842 | 0.968 |
| Quantity of collection in terms of currency and subject relevance is adequate | 158.79 | 1178.756 | 0.686 | 0.843 | 0.968 |
| Library online catalogue is an accurate source of information | 159.25 | 1170.604 | 0.62 | 0.769 | 0.969 |
| Library has a well organized library web page | 159.55 | 1179.385 | 0.498 | 0.766 | 0.969 |
| Items such as photo copiers, printer and computers are kept in good operating condition | 158.99 | 1172.473 | 0.711 | 0.773 | 0.968 |
| Course specific resources are maintained in easily accessible way | 158.72 | 1179.752 | 0.708 | 0.696 | 0.968 |
| There is convenient facility to access Electronic Resources | 159.32 | 1176.1 | 0.632 | 0.674 | 0.969 |

**Appendix – C**

**Total Variance Explanation**

|  |  |  |  |
| --- | --- | --- | --- |
| **Component** | **Initial Eigenvalues** | **Extraction Sums of Squared Loadings** | **Rotation Sums of Squared Loadings** |
| **Total** | **% of Variance** | **Cumulative %** | **Total** | **% of Variance** | **Cumulative %** | **Total** | **% of Variance** | **Cumulative %** |
| 1 | 19.53 | 44.376 | 44.376 | 19.53 | 44.376 | 44.376 | 8.54 | 19.418 | 19.418 |
| 2 | 2.924 | 6.645 | 51.021 | 2.924 | 6.645 | 51.021 | 6.61 | 15.015 | 34.433 |
| 3 | 2.329 | 5.294 | 56.315 | 2.329 | 5.294 | 56.315 | 4.31 | 9.804 | 44.237 |
| 4 | 1.673 | 3.803 | 60.118 | 1.673 | 3.803 | 60.118 | 3.44 | 7.807 | 52.044 |
| 5 | 1.386 | 3.149 | 63.267 | 1.386 | 3.149 | 63.267 | 3.15 | 7.161 | 59.205 |
| 6 | 1.321 | 3.003 | 66.27 | 1.321 | 3.003 | 66.27 | 2.24 | 5.09 | 64.295 |
| 7 | 1.164 | 2.646 | 68.916 | 1.164 | 2.646 | 68.916 | 2.03 | 4.621 | 68.916 |
| 8 | 0.916 | 2.082 | 70.998 |   |   |   |   |   |   |
| 9 | 0.873 | 1.983 | 72.982 |   |   |   |   |   |   |
| 10 | 0.812 | 1.845 | 74.827 |   |   |   |   |   |   |
| 11 | 0.711 | 1.615 | 76.442 |   |   |   |   |   |   |
| 12 | 0.704 | 1.599 | 78.041 |   |   |   |   |   |   |
| 13 | 0.65 | 1.478 | 79.519 |   |   |   |   |   |   |
| 14 | 0.617 | 1.402 | 80.921 |   |   |   |   |   |   |
| 15 | 0.59 | 1.342 | 82.263 |   |   |   |   |   |   |
| 16 | 0.547 | 1.244 | 83.507 |   |   |   |   |   |   |
| 17 | 0.521 | 1.184 | 84.691 |   |   |   |   |   |   |
| 18 | 0.513 | 1.165 | 85.857 |   |   |   |   |   |   |
| 19 | 0.482 | 1.096 | 86.953 |   |   |   |   |   |   |
| 20 | 0.467 | 1.062 | 88.015 |   |   |   |   |   |   |
| 21 | 0.42 | 0.955 | 88.97 |   |   |   |   |   |   |
| 22 | 0.398 | 0.904 | 89.873 |   |   |   |   |   |   |
| 23 | 0.385 | 0.875 | 90.749 |   |   |   |   |   |   |
| 24 | 0.356 | 0.81 | 91.559 |   |   |   |   |   |   |
| 25 | 0.338 | 0.768 | 92.327 |   |   |   |   |   |   |
| 26 | 0.326 | 0.74 | 93.067 |   |   |   |   |   |   |
| 27 | 0.29 | 0.658 | 93.725 |   |   |   |   |   |   |
| 28 | 0.27 | 0.614 | 94.339 |   |   |   |   |   |   |
| 29 | 0.257 | 0.584 | 94.923 |   |   |   |   |   |   |
| 30 | 0.253 | 0.575 | 95.498 |   |   |   |   |   |   |
| 31 | 0.225 | 0.511 | 96.009 |   |   |   |   |   |   |
| 32 | 0.197 | 0.449 | 96.457 |   |   |   |   |   |   |
| 33 | 0.186 | 0.424 | 96.881 |   |   |   |   |   |   |
| 34 | 0.183 | 0.415 | 97.296 |   |   |   |   |   |   |
| 35 | 0.169 | 0.384 | 97.68 |   |   |   |   |   |   |
| 36 | 0.148 | 0.337 | 98.017 |   |   |   |   |   |   |
| 37 | 0.139 | 0.315 | 98.332 |   |   |   |   |   |   |
| 38 | 0.136 | 0.309 | 98.642 |   |   |   |   |   |   |
| 39 | 0.126 | 0.287 | 98.929 |   |   |   |   |   |   |
| 40 | 0.117 | 0.266 | 99.195 |   |   |   |   |   |   |
| 41 | 0.109 | 0.249 | 99.444 |   |   |   |   |   |   |
| 42 | 0.097 | 0.22 | 99.664 |   |   |   |   |   |   |
| 43 | 0.079 | 0.18 | 99.844 |   |   |   |   |   |   |
| 44 | 0.069 | 0.156 | 100 |   |   |   |   |   |   |
| Extraction Method: Principal Component Analysis. |

**Appendix – D**

|  |
| --- |
| **Rotated Component Matrixa** |
|   | Component |
| Items | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Library staff understand the needs of users  | 0.85 |   |   |   |   |   |   |
| Library staff treat users fairly and without discrimination | 0.79 |   |   |   |   |   |   |
| Library staff are making users feel secure about transactions | 0.78 |   |   |   |   |   |   |
| Library staff are having users' best interest in heart and mind | 0.77 |   |   |   |   |   |   |
| Library staff are approachable and welcoming | 0.77 |   |   |   |   |   |   |
| Library staff have knowledge and skills to provide answer to user questions | 0.74 |   |   |   |   |   |   |
| When user have problem Library staff are sympathetic and reassuring | 0.71 |   |   |   |   |   |   |
| Library staff are committed to their duty and responsibility | 0.66 |   |   |   |   |   |   |
| Library staff use technology (IT) efficiently | 0.65 |   |   |   |   |   |   |
| Library staff are well dressed and having neat appearance | 0.62 |   |   |   |   |   |   |
| The library provides services at the promised time | 0.57 |   |   |   |   |   |   |
| Library staff provide user education programmes to help users making more effective use of the resource of their interests | 0.53 |   |   |   |   |   |   |
| Library staff arranges documents, if not available in the library, from other sources | 0.45 |   |   |   |   |   |   |
| The printed library materials I need are available adequately as per my course need |   | 0.75 |   |   |   |   |   |
| Handbooks, Subject-Dictionary, Standards and other Special Reference Collection are adequate |   | 0.74 |   |   |   |   |   |
| The library materials are in good condition (not brittle or falling apart) |   | 0.65 |   |   |   |   |   |
| Availability of printed Magazines / Journals are relevant to information needs |   | 0.63 |   |   |   |   |   |
| The Resources I get from the library are current & accurate |   | 0.62 |   |   |   |   |   |
| Quality of collection in terms of currency and subject relevance is up to the mark |   | 0.6 |   |   |   |   |   |
| Library is well stocked with collections on Competitive Examinations |   | 0.56 |   |   |   |   |   |
| Quantity of collection in terms of currency and subject relevance is adequate |   | 0.56 |   |   |   |   |   |
| Convenient access to library collections |   | 0.56 |   |   |   |   |   |
| Course specific resources are maintained in easily accessible way |   | 0.53 |   |   |   |   |   |
| Library information guides are clear and useful |   | 0.51 |   |   |   |   |   |
| Library has an appropriate collection of information resources for its users  |   | 0.49 |   |   |   |   |   |
| Library acquires information resource as per user demand |   | 0.44 |   |   |   |   |   |
| Library has a well organized library web page |   |   | 0.768 |   |   |   |   |
| Library online catalogue is an accurate source of information |   |   | 0.747 |   |   |   |   |
| Number and variety of Electronic Resources subscribed are adequate |   |   | 0.678 |   |   |   |   |
| Access to computers to support study / research is adequate |   |   | 0.647 |   |   |   |   |
| A gateway for study, learning and research |   |   |   | 0.71 |   |   |   |
| Individual sit availability is adequate and comfortable |   |   |   | 0.67 |   |   |   |
| Library has convenient operating hours |   |   |   | 0.61 |   |   |   |
| Library is a pleasant, comfortable and inviting location to carry out study |   |   |   | 0.51 |   |   |   |
| Number of newspapers are adequate in library |   |   |   | 0.5 |   |   |   |
| Service hours fixed keeping in view the users convenience |   |   |   |   | 0.75 |   |   |
| There is convenient facility to access Electronic Resources |   |   |   |   | 0.48 |   |   |
| Items such as photo copiers, printer and computers are kept in good operating condition |   |   |   |   | 0.45 |   |   |
| Taking photocopies and printouts is easy and cost effective |   |   |   |   |   | 0.65 |   |
| Library has modern equipment (photocopiers, computers, printers) in good condition |   |   |   |   |   | 0.63 |   |
| I feel safe and secure towards my personal belongings in Library |   |   |   |   |   | 0.52 |   |
| Facilities for using personal laptops are adequate |   |   |   |   |   |   | 0.73 |
| Group study facilities are adequate |   |   |   |   |   |   | 0.68 |
| The library has visually appealing facilities |   |   |   |   |   |   | 0.47 |
| Extraction Method: Principal Component Analysis.  |
|  Rotation Method: Varimax with Kaiser Normalization. |
| a. Rotation converged in 11 iterations. |

**Appendix - E**

**LSQA Tool**

(Please tick the in the box of your choice) (Score 1 for “Strongly Disagree” and 5 for “Strongly Agree”)

**Library Infrastructure / Environment (LP)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Items** | **Code** | **1** | **2** | **3** | **4** | **5** | **NA** |
| Library is a pleasant, comfortable and inviting location to carry out study | LP1 |  |  |  |  |  |  |
| The library has visually appealing facilities | LP2 |  |  |  |  |  |  |
| A gateway for study, learning and research | LP3 |  |  |  |  |  |  |
| Library has convenient operating hours | LP4 |  |  |  |  |  |  |
| Facilities for using personal laptops are adequate | LP5 |  |  |  |  |  |  |
| Group study facilities are adequate | LP6 |  |  |  |  |  |  |
| Individual sit availability is adequate and comfortable | LP7 |  |  |  |  |  |  |
| Access to computers to support study / research is adequate | LP8 |  |  |  |  |  |  |
| Library has modern equipment (photocopiers, computers, printers) in good condition | LP9 |  |  |  |  |  |  |
| I feel safe and secure towards my personal belongings in Library | LP10 |  |  |  |  |  |  |

**Library Collection (LC)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Items** | **Code** | **1** | **2** | **3** | **4** | **5** | **NA** |
| Library has an appropriate collection of information resources for its users  | LC1 |  |  |  |  |  |  |
| The Resources I get from the library are current & accurate | LC2 |  |  |  |  |  |  |
| The printed library materials I need are available adequately as per my course need | LC3 |  |  |  |  |  |  |
| Handbooks, Subject-Dictionary, Standards and other Special Reference Collection are adequate | LC4 |  |  |  |  |  |  |
| The library materials are in good condition (not brittle or falling apart) | LC5 |  |  |  |  |  |  |
| Availability of printed Magazines / Journals are relevant to information needs | LC6 |  |  |  |  |  |  |
| Number of newspapers are adequate in library | LC7 |  |  |  |  |  |  |
| Library information guides are clear and useful | LC8 |  |  |  |  |  |  |
| Number and variety of Electronic Resources subscribed are adequate | LC9 |  |  |  |  |  |  |
| Library acquires information resource as per user demand | LC10 |  |  |  |  |  |  |
| Library is well stocked with collections on Competitive Examinations | LC11 |  |  |  |  |  |  |

**Library Staff (LF)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Items** | **Code** | **1** | **2** | **3** | **4** | **5** | **NA** |
| Library staff are approachable and welcoming | LF1 |  |  |  |  |  |  |
| Library staff understand the needs of users  | LF2 |  |  |  |  |  |  |
| Library staff have knowledge and skills to provide answer to user questions | LF3 |  |  |  |  |  |  |
| Library staff are well dressed and having neat appearance | LF4 |  |  |  |  |  |  |
| When user have problem Library staff are sympathetic and reassuring | LF5 |  |  |  |  |  |  |
| Library staff treat users fairly and without discrimination | LF6 |  |  |  |  |  |  |
| Library staff use technology (IT) efficiently | LF7 |  |  |  |  |  |  |
| Library staff are making users feel secure about transactions | LF8 |  |  |  |  |  |  |
| Library staff are having users' best interest in heart and mind | LF9 |  |  |  |  |  |  |
| Library staff provide user education programmes to help users making more effective use of their interests | LF10 |  |  |  |  |  |  |
| Library staff are committed to their duty and responsibility | LF11 |  |  |  |  |  |  |
| The library provides services at the promised time | LF12 |  |  |  |  |  |  |
| Library staff arranges documents, if not available in the library, from other sources | LF13 |  |  |  |  |  |  |

**Library Service (LS)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Items** | **Code** | **1** | **2** | **3** | **4** | **5** | **NA** |
| Taking photocopies and printouts is easy and cost effective | LS1 |  |  |  |  |  |  |
| Convenient access to library collections | LS2 |  |  |  |  |  |  |
| Service hours fixed keeping in view the users convenience | LS3 |  |  |  |  |  |  |
| Quality of collection in terms of currency and subject relevance is up to the mark | LS4 |  |  |  |  |  |  |
| Quantity of collection in terms of currency and subject relevance is adequate | LS5 |  |  |  |  |  |  |
| Library online catalogue is an accurate source of information | LS6 |  |  |  |  |  |  |
| Library has a well organized library web page | LS7 |  |  |  |  |  |  |
| Items such as photocopiers, printer and computers are kept in good operating condition | LS8 |  |  |  |  |  |  |
| Course specific resources are maintained in easily accessible way | LS9 |  |  |  |  |  |  |
| There is convenient facility to access Electronic Resources | LS10 |  |  |  |  |  |  |