

## **Criterion IV: - Infrastructure and Learning Resources**

The adequacy and optimal use of the facilities available in an institution are essential to maintain the quality of academic and other programmes on the campus. It also requires information on how every constituent of the institution - students, teachers and staff - benefit from these facilities. Expansion of facilities to meet future development is included among other concerns.

The focus of Criterion IV is captured in the following Key Indicators:

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### **KEY INDICATORS**

- 4.1 Physical Facilities
  - 4.2 Library as a Learning Resource
  - 4.3 IT Infrastructure
  - 4.4 Maintenance of Campus Infrastructure
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#### **4.1 Physical Facilities**

Adequate infrastructure facilities are keys for effective and efficient conduct of the educational programmes. The growth of infrastructure thus has to keep pace with the academic developments in the institution. The other supportive facilities on the campus are developed to contribute to the effective ambience for curricular, extra- curricular and administrative activities. A provision of expenditure in the budget is made annually for maintenance and replenishment of physical facilities which will ensure their availability on a continual basis.

#### **4.2 Library as a Learning Resource**

The library holdings in terms of books, journals and other learning materials and technology-aided learning mechanisms which enable students to acquire information, knowledge and skills required for their study programmes. A recent development in the field due to availability of digital means, the functioning of the library has undergone a drastic change. Automation of library using the ILMS, use of e-journals and books, providing remote access to e-resources in the library have become a matter of necessity. Providing for these and such other developments as well as utilizing them well are important indicators of the quality of an academic institution.

#### **4.3 IT Infrastructure**

The institution adopts policies and strategies for adequate technology deployment and maintenance. The ICT facilities and other learning resources are adequately available in the institution for academic and administrative purposes. The staff and students have access to technology and information retrieval on current and relevant issues. The institution deploys and employs ICTs for a range of activities.

#### **4.4 Maintenance of Campus Infrastructure**

Having adequate infrastructure is not enough for effective institutional functioning, but regular maintenance and periodic replenishment of infrastructure is essential. It is necessary that the institution has sufficient resources allocated for regular upkeep of the infrastructure and there are effective mechanisms for the upkeep of the infrastructure facilities; and promote the optimum use of the same.

<b>4. Infrastructure and Learning Resources</b>	4.1 Physical Facilities	30	30	30	30
	4.2 Library as a Learning Resource	20	20	20	20
	4.3 IT Infrastructure	30	30	30	30
	4.4 Maintenance of Campus Infrastructure	20	20	20	20
	<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

\* In case of HEIs who exercise to opt for the weightage of  $\leq 3\%$  of Non Applicable Metrics, the total score will vary accordingly.

**(U)** - *applicable only for Universities and Autonomous Colleges*

**(A)** - *applicable only for the Affiliated/Constituent Colleges*

**NA** - Not Applicable

**Criterion IV – Infrastructure and Learning Resources (100)**

**Key Indicator - 4.1 Physical Facilities (30)**

Metric No		Weightage
<p><b>4.1.1</b></p> <p><b>Q<sub>i</sub>M</b></p>	<p><i>The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc.</i></p> <p>Describe the adequacy of facilities for teaching –learning as per the minimum specified requirement by statutory bodies within a maximum of 500 words</p> <p><b>File Description</b></p> <ul style="list-style-type: none"> <li>• Upload any additional information</li> <li>• Paste link for additional information</li> </ul>	<p align="center"><b>10</b></p>
<p><b>4.1.2</b></p> <p><b>Q<sub>i</sub>M</b></p>	<p><i>The institution has adequate facilities for cultural activities, yoga, games (indoor, outdoor) and sports. (gymnasium, yoga centre, auditorium, etc.)</i></p> <p>Describe the adequacy facilities for cultural activities, yoga, games (indoor, outdoor) and sports which include specification about area/size, year of establishment and user rate within minimum of 500 characters and maximum of 500 words</p> <p><b>File Description</b></p> <ul style="list-style-type: none"> <li>• Upload any additional information</li> <li>• Geotagged pictures</li> <li>• Paste link for additional information</li> </ul>	<p align="center"><b>5</b></p>
<p><b>4.1.3</b></p> <p><b>Q<sub>i</sub>M</b></p>	<p><b>Availability of general campus facilities and overall ambience</b></p> <p>Describe the general campus facilities and its utilization in maximum of 500 words</p> <p><b>File Description</b></p> <ul style="list-style-type: none"> <li>• Upload any additional information</li> <li>• Paste link for additional information</li> </ul>	<p align="center"><b>5</b></p>

<p><b>4.1.4</b> <b>Q<sub>n</sub>M</b></p>	<p><b><i>Average percentage of expenditure excluding salary for infrastructure augmentation during the last five years (INR in Lakhs)</i></b></p> <p>4.1.4.1: Expenditure for infrastructure augmentation, excluding salary during the last five years (INR in lakhs)</p> <table border="1" data-bbox="360 392 1219 515"> <tr> <td><b>Year</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><b>INR in lakhs</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p>Data Requirement for last five years: (As per Data Template)</p> <ul style="list-style-type: none"> <li>• Budget allocated for infrastructure augmentation</li> <li>• Total expenditure for infrastructure augmentation</li> <li>• Audited statement of accounts</li> <li>• Total expenditure excluding Salary</li> </ul> <p>Formula :</p> $\text{Percentage per year} = \frac{\text{Expenditure for infrastructure augmentation excluding salary}}{\text{Total expenditure excluding salary}} \times 100$ $\text{Average percentage} = \frac{\sum \text{Percentage Per year}}{5}$ <p><b>File Description</b></p> <ul style="list-style-type: none"> <li>• Upload any additional information</li> <li>• Upload audited utilization statements</li> <li>• Upload Details of budget allocation, excluding salary during the last five years (Data Template)</li> </ul>	<b>Year</b>						<b>INR in lakhs</b>						<p><b>10</b></p>
<b>Year</b>														
<b>INR in lakhs</b>														

<b>Year</b>					
<b>INR in lakhs</b>					

**Key Indicator - 4.2 Library as a Learning Resource (20)**

Metric No.		Weightage
<p><b>4.2.1</b></p> <p><b>Q<sub>i</sub>M</b></p>	<p><b><i>Library is automated using Integrated Library Management System (ILMS) and has digitisation facility</i></b></p> <p>Describe the implementation of the automation of the Library and the digitization facility available and used in maximum of 500 words</p> <p><b>File Description</b></p> <ul style="list-style-type: none"> <li>• Upload any additional information</li> <li>• Paste link for additional information</li> </ul>	<p align="center"><b>4</b></p>
<p><b>4.2.2</b></p> <p><b>Q<sub>n</sub>M</b></p>	<p><b><i>Institution has subscription for e-Library resources</i></b></p> <p>Library has regular subscription for the following:</p> <ol style="list-style-type: none"> <li>1. e – journals</li> <li>2. e-books</li> <li>3. e-ShodhSindhu</li> <li>4. Shodhganga</li> <li>5. Databases</li> </ol> <p><b>Options:</b></p> <p>A. Any 4 of the above            B. Any 3 of the above            C. Any 2 of the above            D. Any 1 of the above            E. None of the above</p> <p><b>File Description</b></p> <ul style="list-style-type: none"> <li>• Upload any additional information</li> <li>• Details of subscriptions like e-journals, e-ShodhSindhu, Shodhganga Membership etc (Data Template)</li> </ul>	<p align="center"><b>6</b></p>
<p><b>4.2.3</b></p> <p><b>Q<sub>n</sub>M</b></p>	<p><b><i>Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)</i></b></p> <p>4.2.3.1: Annual expenditure for purchase of books and journals year wise during the last five years (INR in lakhs)</p> <p>Data Requirement for last five years: (As per Data Template)</p> <ul style="list-style-type: none"> <li>• Expenditure on the purchase of books</li> <li>• Expenditure on the purchase of journals in i<sup>th</sup> year</li> <li>• Year of expenditure:</li> </ul> <p>Formula :</p> $\frac{1}{5} \times \sum_{i=1}^5 \text{Expd}_i$ <p>Where: <b>Expd<sub>i</sub></b> = Expenditure in rupees on purchase of books and</p>	<p align="center"><b>5</b></p>

	<p><b>File Description (Upload)</b></p> <ul style="list-style-type: none"> <li>Any additional information</li> <li>Audited statements of accounts</li> </ul> <p>Details of annual expenditure for purchase of books and journals during the last five years (Data Template)</p>	
<p><b>4.2.4</b> <b>Q<sub>n</sub>M</b></p>	<p><b><i>Percentage per day usage of library by teachers and students ( foot falls and login data for online access) (Data for the latest completed academic year)</i></b></p> <p>4.2.4.1: Number of teachers and students using library per day over last one year</p> <p>Data Requirements:</p> <ul style="list-style-type: none"> <li>Upload last page of accession register details</li> <li>per day login/online users of library</li> <li>Number of users using library through e-access</li> <li>Number of physical users accessing library</li> </ul> <p>Formula:</p> $\frac{\text{Number of teachers and students library per day}}{\text{Total number of teachers and students}} \times 100$ <p><b>File Description (Upload)</b></p> <ul style="list-style-type: none"> <li>Any additional information</li> <li>Details of library usage by teachers and students (Library accession register, online accession details to be provided as supporting documents)</li> </ul>	<p><b>5</b></p>

### Key Indicator – 4.3 IT Infrastructure (30)

Metric No.		Weightage
<p><b>4.3.1</b> <b>Q<sub>n</sub>M</b></p>	<p><b><i>Percentage of classrooms and seminar halls with ICT - enabled facilities such as LCD, smart board, Wi-Fi/LAN, audio video recording facilities .(Data for the latest completed academic year)</i></b></p> <p>4.3.1.1: Number of classrooms and seminar halls with ICT facilities</p> <p>Data Requirements: (As per Data Template)</p> <ul style="list-style-type: none"> <li>Number of classrooms with LCD facilities</li> <li>Number of classrooms with Wi-Fi/LAN facilities</li> <li>Number of seminar halls with ICT facilities</li> </ul> <p>Formula:</p> $\frac{\text{Total Number of classrooms and seminar halls with ICT facilities}}{\text{Total number of classrooms and seminar hall}} \times 100$	<p><b>5</b></p>

	<p><b>File Description</b></p> <ul style="list-style-type: none"> <li>• Upload any additional information</li> <li>• Paste link for additional information</li> <li>• Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)</li> </ul>	
4.3.2 Q <sub>i</sub> M	<p><b><i>Institution has an IT policy, makes appropriate budgetary provision and updates its IT facilities including Wi-Fi facility</i></b></p> <p>Providing the salient features of the IT Policy and describe the process of implementation and adherence to the policy , budgetary provisions made and utilized and the expansion plan in maximum of 500 words</p> <p><b>File Description</b></p> <ul style="list-style-type: none"> <li>• Upload any additional information</li> <li>• Paste link for additional information</li> </ul>	5
4.3.3 Q <sub>n</sub> M	<p><b><i>Student - Computer ratio (Data for the latest completed academic year)</i></b></p> <p>Number of students : Number of Computers available to students for academic purposes</p> <p>Data Requirements:</p> <ul style="list-style-type: none"> <li>• Number of computers for academic purposes in working condition</li> <li>• Total Number of students</li> </ul> <p><b>File Description</b></p> <ul style="list-style-type: none"> <li>• Upload any additional information</li> <li>• Student – computer ratio</li> </ul>	10
4.3.4 Q <sub>n</sub> M	<p><b><i>Available bandwidth of internet connection in the Institution (Leased line)</i></b></p> <p><b>Options:</b></p> <p>A. ≥1 GBPS B. 500 MBPS - 1 GBPS C. 250 MBPS - 500 MBPS D. 50 MBPS - 250 MBPS E. &lt;50 MBPS</p> <p>Data Requirements:</p> <ul style="list-style-type: none"> <li>• Available internet bandwidth</li> </ul> <p><b>File Description</b></p> <ul style="list-style-type: none"> <li>• Upload any additional information</li> <li>• Details of available bandwidth of internet connection in the Institution</li> </ul>	5
4.3.5 Q <sub>n</sub> M	<p><b><i>Institution has the following Facilities for e-content development</i></b></p> <ol style="list-style-type: none"> <li>1. Media centre</li> <li>2. Audio visual centre</li> <li>3. Lecture Capturing System(LCS)</li> <li>4. Mixing equipments and softwares for editing</li> </ol> <p><b>Options:</b></p> <p>A. All of the above B. 3 of the above</p>	5

	<p>C. 2 of the above D. 1 of the above E. None of the above</p> <p>Data Requirements: (As per Data Template)</p> <ul style="list-style-type: none"> <li>• Upload the names of the e-content development facilities</li> </ul> <p><b>File Description</b></p> <ul style="list-style-type: none"> <li>• Upload any additional information</li> <li>• Links of photographs</li> <li>• Facilities for e-content development such as Media Centre, Recording facility, LCS etc (Data Templates)</li> </ul>	
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### Key Indicator - 4.4 Maintenance of Campus Infrastructure (20)

Metric No.		Weightage												
<p><b>4.4.1</b></p> <p><b>Q<sub>n</sub>M</b></p>	<p><i>Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years</i></p> <p>4.4.1.1: Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year wise during the last five years (INR in lakhs)</p> <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;"><b>Year</b></td> <td style="width: 40px;"></td> <td style="width: 40px;"></td> <td style="width: 40px;"></td> <td style="width: 40px;"></td> <td style="width: 40px;"></td> </tr> <tr> <td style="padding: 5px;"><b>INR in lakhs</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p>Data Requirement for last five years:(As per Data Template)</p> <ul style="list-style-type: none"> <li>• Non salary expenditure incurred</li> <li>• Expenditure incurred on maintenance of campus infrastructure</li> </ul> <p>Formula:</p> $\text{Percentage per year} = \frac{\text{Expenditure on maintenance of physical and academic support facilities excluding salary component}}{\text{Total expenditure excluding salary component}} \times 100$ $\text{Average percentage} = \frac{\sum \text{Percentage per year}}{5}$ <p><b>File Description</b></p> <ul style="list-style-type: none"> <li>• Upload any additional information</li> <li>• Audited statements of accounts.</li> <li>• Details about assigned budget and expenditure on physical facilities and academic facilities (Data Templates)</li> </ul>	<b>Year</b>						<b>INR in lakhs</b>						<p><b>10</b></p>
<b>Year</b>														
<b>INR in lakhs</b>														



<p>4.4.2 Q<sub>i</sub>M</p>	<p><i>There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.</i></p> <p>Describe policy details of systems and procedures for maintaining and utilizing physical, academic and support facilities on the website within a minimum of 500 word and maximum of 1000 words</p> <p><b>File Description</b></p> <ul style="list-style-type: none"> <li>• Upload any additional information</li> <li>• Paste link for additional information</li> </ul>	<p><b>10</b></p>
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<b>Criterion IV – Infrastructure and Learning Resources (100)</b>					
<b>Key Indicator - 4.1 Physical Facilities (30)</b>					

32.	4.1.4 Average percentage of expenditure excluding salary for infrastructure augmentation during the last five years (INR in Lakhs) (10)					
	4.4.1 Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years (INR in lakhs) .(10)					
	Year	Budget allocated for infrastructure augmentation	Expenditure for infrastructure augmentation	Total expenditure excluding Salary	Expenditure on maintenace of academic facilities (excluding salary for human resources)	Expenditure on maintenance of physical facilities (excluding salary for human resources)

<b>Key Indicator - 4.2 Library as a Learning Resource (20)</b>					
33.	4.2.2 Institution has subscription for e-Library resources (6) Library has regular subscription for the following: 1. e – journals, 2. e-books, 3.e-ShodhSindhu, 4.Shodhganga, 5.Databases				
	4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs) (5)				

<b>Year 1</b>					
<b>Library resources</b>	<b>If yes, details of memberships/subscriptions</b>	<b>Expenditure on subscription to e-journals, e-books (INR in lakhs)</b>	<b>Expenditure on subscription to other e-resources (INR in lakhs)</b>	<b>Total Library Expenditure</b>	<b>Link to the relevant document</b>
<b>Books</b>					
<b>Journals</b>					
<b>e – journals</b>					
<b>e-books</b>					
<b>e-ShodhSindhu</b>					
<b>Shodhganga</b>					
<b>Databases</b>					
<b>Year 2</b>					
<b>Library resources</b>	<b>If yes, details of memberships/subscriptions</b>	<b>Expenditure on subscription to e-journals, e-books (INR in lakhs)</b>	<b>Expenditure on subscription to other e-resources (INR in lakhs)</b>	<b>Total Library Expenditure</b>	<b>Link to the relevant document</b>
<b>Books</b>					
<b>Journals</b>					
<b>e – journals</b>					
<b>e-books</b>					

<b>e-ShodhSindhu</b>					
<b>Shodhganga</b>					
<b>Databases</b>					
<b>Year 3</b>					
<b>Library resources</b>	<b>If yes, details of memberships/subscriptions</b>	<b>Expenditure on subscription to e-journals, e-books (INR in lakhs)</b>	<b>Expenditure on subscription to other e-resources (INR in lakhs)</b>	<b>Total Library Expenditure</b>	<b>Link to the relevant document</b>
<b>Books</b>					
<b>Journals</b>					
<b>e – journals</b>					
<b>e-books</b>					
<b>e-ShodhSindhu</b>					
<b>Shodhganga</b>					
<b>Databases</b>					
<b>Year 4</b>					
<b>Library resources</b>	<b>If yes, details of memberships/subscriptions</b>	<b>Expenditure on subscription to e-journals, e-books (INR in lakhs)</b>	<b>Expenditure on subscription to other e-resources (INR in lakhs)</b>	<b>Total Library Expenditure</b>	<b>Link to the relevant document</b>
<b>Books</b>					

<b>Journals</b>					
<b>e – journals</b>					
<b>e-books</b>					
<b>e-ShodhSindhu</b>					
<b>Shodhganga</b>					
<b>Databases</b>					
<b>Year 5</b>					
<b>Library resources</b>	<b>If yes, details of memberships/subscriptions</b>	<b>Expenditure on subscription to e-journals, e-books (INR in lakhs)</b>	<b>Expenditure on subscription to other e-resources (INR in lakhs)</b>	<b>Total Library Expenditure</b>	<b>Link to the relevant document</b>
<b>Books</b>					
<b>Journals</b>					
<b>e – journals</b>					
<b>e-books</b>					
<b>e-ShodhSindhu</b>					
<b>Shodhganga</b>					
<b>Databases</b>					

	<b>Key Indicator - 4.3 IT Infrastructure</b>		
34.	<i>4.3.1 Percentage of classrooms and seminar halls with ICT - enabled facilities such as LCD, smart board, Wi-Fi/LAN, audio video recording facilities .(Data for the latest completed academic year) (5)</i>		
	<b>Room number or Name of classrooms/Seminar Hall with LCD / wifi/LAN facilities with room numbers</b>	<b>Type of ICT facility</b>	<b>Link to geo tagged photos and master time table</b>
	** (Data for the latest completed academic year)		