

# Indian Institutes of Science Education and Research



## Information Brochure

Admission to 5-Year BS-MS (Dual Degree)  
and 4-Year BS Degree Programs  
2024

*Jurisdiction: All disputes are subject to Bhopal jurisdiction*

April, 2024

## **Important Notes:**

- For 2024, all students admitted to IISERs will only be through the IISER Aptitude Test (IAT)
- Window for filling up the Application Form: April 01 to May 13, 2024
- The Application fee for this is Rs. 2000 (for General, EWS, OBC, and OBC-NCL categories) and Rs. 1000 (for SC/ST/Kashmiri Migrants/PwD categories). For details, please visit [www.iiseradmission.in](http://www.iiseradmission.in)
- Choice of IISERs: The choice of IISERs has to filled up by candidates ONLY after the declaration of the IAT results. There will be no fee for filling up this form which will be available on the website ([www.iiseradmission.in](http://www.iiseradmission.in)) after the declaration of the IAT results

[Indian Institutes of Science Education and Research \(https://www.iiseradmission.in\)](https://www.iiseradmission.in)

Organizing Institute: **Indian Institute of Science Education and Research (IISER) Bhopal**

Contact Details:

The Chairperson  
Joint Admissions Committee 2024  
IISER Bhopal, Bhopal Bypass Road, Bhauri, Bhopal 462066  
Email: [askjac2024@iiserb.ac.in](mailto:askjac2024@iiserb.ac.in)

## Table of Contents

<b>PART 1</b>	<b>INSTITUTES</b>	
1	Indian Institutes of Science Education and Research	4
2	Academics Programs	5
<b>PART 2</b>	<b>ADMISSION</b>	
3	Eligibility Criteria	6
4	Procedure of Admission	6
5	Performance Criteria in Qualifying Examination	7
6	Reservation of Seats	7
7	Services of Scribe	8
8	Compensatory Time	8
9	OCI/PIO Candidates	9
10	Foreign Nationals	9
11	Online Application and Fee	9
12	Documents Required for Application	10
13	Selecting IISERs During Online Application	13
14	Seat Matrix	14
15	Important Dates	14

16	Admission Process	15
17	Withdrawal Process	16
<b>PART 3</b>	<b>IISERs Aptitude Test</b>	
18	The Examination	18
19	Question Papers and Mock Tests	19
20	Mode of Examination	19
21	Cities and Towns where IISERs Aptitude Test will be held	19
22	Important Instructions to be Followed on the Day of the Examination	19
23	Result of IISERs Test	21
24	Other Institutions using IAT for Admission to their Programs	21
<b>● SYLLABI</b>		22
•	BIOLOGY	22
•	CHEMISTRY	24
•	MATHEMATICS	27
•	PHYSICS	30
<b>● ANNEXURE: CERTIFICATE AND FORMS FORMATS</b>		
FORM-GEN-EWS		34
FORM-OBC-NCL		36
FORM-SC-ST		39
FORM-PWD (II)		42
FORM-PWD (III)		44
FORM-PWD (IV)		47
FORM-DYSLEXIC-1		50
FORM-DYSLEXIC-2		52
FORM - DISABILITY AND HAVING DIFFICULTY IN WRITING		53

FORM - KASHMIRI MIGRANT QUOTA	54
DECLARATION BY THE CANDIDATE IN LIEU OF GEN-EWS CERTIFICATE	55
DECLARATION BY THE CANDIDATE IN LIEU OF OBC-NCL CERTIFICATE	56
DECLARATION BY THE CANDIDATE IN LIEU OF ELIGIBILITY EXAMINATION CERTIFICATE	57
Medical Examination Report	58
• <b>QUERIES AND GRIEVANCES</b>	61

# PART 1: THE INSTITUTES

## 1. Indian Institutes of Science Education and Research

Indian Institutes of Science Education and Research (IISERs) was established by the Government of India at Berhampur, Bhopal, Kolkata, Mohali, Pune, Thiruvananthapuram, and Tirupati to integrate and promote interdisciplinary science education and research. Over the years, the IISERs have been successfully attracting talented young minds. An overarching goal of the IISERs is to enable students to shape the nation by inventing and implementing sustainable solutions for societal problems through research in science. This is being achieved by our faculty of international repute together with bright students. In a short span of time, the IISERs have generated an incredible amount of intellectual property in the form of publications and patents. Additionally, the graduating students from the different programs have been successfully placed and the alumni of IISERs have carved a niche in the global academic/non-academic platforms.

### ➤ Key Features

- Highly competent and motivated faculty with passion for teaching and pursuing research in frontier areas of science.
- Integrated undergraduate teaching and cutting-edge research; students are always at an academic environment.
- Exposure and access to world-class research facilities and contemporary pedagogy right from the start of the program.
- Research internships and year-long research projects leading to MS thesis with opportunities for interdisciplinary research.
- Opportunity to choose your specialization after exploring various subjects.

## 2. Academic Programs

For the undergraduate programs, IISERs offer admission to courses leading to BS-MS (Dual Degree) and BS Degree (only at IISER Bhopal) Programs. All admissions are only through the IISER Aptitude Test (IAT).

### ➤ **About the BS and BS-MS (Dual Degree) Programs**

- 5-Year (Dual Degree) program for science students and 4-Year BS Degree program for Engineering Sciences and Economic Sciences (offered only at IISER Bhopal).
- Classroom learning integrated with research, providing ample scope for interdisciplinary activities.
- Curriculum with a focus on both breadth and depth in the natural sciences, engineering sciences and economic sciences.
- Opportunity to pursue impactful research.
- Fully residential campuses with well-equipped hostels.
- Access to on-campus medical facilities along with sports and other recreational facilities.

### ➤ **Academic Streams**

Students admitted to the IISERs can pursue their BS/BS-MS programs either in Natural Sciences or Engineering Sciences or Economic Sciences.

For more details, please visit the website of individual IISERs.

# PART 2: ADMISSION

## 3. Eligibility Criteria

- Applicants must be Indian nationals or PIO or OCI to apply for IAT 2024.
- Candidates must have passed the Class XII (or equivalent) examination with science stream in 2022, 2023 or 2024 from any board recognized by Council of Boards of School Education in India COBSE.
- Candidates must have taken at least three subjects among Biology, Chemistry, Mathematics and Physics during their Class XII (or equivalent) examination.
- Candidates belonging to SC/ST/PwD require to score a minimum of 55% marks in aggregate or equivalent grade in their Class XII (or equivalent) examination. Candidates belonging to other categories require to score a minimum of 60% marks in aggregate or equivalent grade in their Class XII (or equivalent) examination.

**NOTE:** The students from the Jammu and Kashmir Board of School Education (JKBOSE), from Kashmir division/Winter Zone areas of Jammu division and the U.T. of Ladakh, who appeared in their Class XII or equivalent level examination in Dec 2021\*, are also eligible to apply for the IAT 2024, provided they satisfy all the other eligibility criteria.

\*During the application process, these students must pick 2022 as their year of passing the class 12 examination.

## 4. Procedure of Admission

- IISER Aptitude Test (IAT) is the only channel of admission.
- Candidates seeking admission must appear for a computer-based IISER Aptitude Test (IAT-2024).
- IAT-2024 will be conducted on Sunday, June 9, 2024, at 9:00 AM, at various centers across the country.



## 5. Performance Criteria in Qualifying Examination

- Candidates whose Class XII (or equivalent) examination results have not yet been declared, can apply for IAT 2024. However, their admission will be subject to fulfilling the minimum eligibility criteria given above.
- For candidates who had appeared in the Class XII (or equivalent) examination for the first time in 2023 and reappeared in any subject (for whatever reason) in 2024, the better of two performances will be considered.
- If a board gives aggregate marks considering both Class XI and Class XII, then only Class XII (or equivalent) examination marks will be considered. If a board gives aggregate marks considering the results of all three years of a 3-year diploma or courses of equivalent duration, then only the marks scored in the final year will be considered. Similarly, the marks scored in the final two semesters will be considered for boards that follow a semester system.
- If a board awards only letter grades without providing an equivalent percentage of marks on the grade-sheet, the candidate should obtain a certificate from the board specifying the equivalent marks and submit it before the deadline of the mark-sheet submission. In case the board does not provide such a certificate, the percentage marks will be assessed as follows:

$$\text{percentage marks} = (\text{CGPA or CPI obtained} \times 100) / \text{PS},$$

where PS is the maximum value of the point scale used by the respective board.

## 6. Reservation of Seats

- Reservation policies as mandated by the Govt. of India will apply.
- Scheduled Caste (SC) - 15% of seats
- Scheduled Tribe (ST) - 7.5% of seats
- Other Backward Classes belonging to the Non-Creamy Layer (OBC-NCL) - 27% of seats.
- Persons with Disability (PwD) with at least 40% impairment - 5% of seats (supernumerary)
- Kashmiri Migrants - 3 seats per IISER (supernumerary)
- Economically Weaker Section (EWS) - up to 10% (as per Government of India rules)

**Note that the EWS/OBC-NCL certificate should be valid for the financial year 2024-25.**

## **7. Services of a Scribe**

- As per the office memorandum of the Ministry of Social Justice and Empowerment, the PwD candidates who are visually impaired OR dyslexic (severe) OR have disability in the upper limbs OR have lost fingers/hands, thereby preventing them from properly operating the computer-based test platform may avail the services of a scribe (amanuensis) for the IISER Aptitude Test.
- As per the office memorandum of Ministry of Social Justice and Empowerment candidates with less than 40% disability and having difficulty in writing may avail the services of a scribe (amanuensis). These candidates must also upload the “Disability and Difficulty in Writing Certificate” (see Downloads section) duly issued by the competent authority.
- Eligible candidates who desire to avail the services of a scribe need to opt for this during the online application process of IAT 2024.
- If it is found at any stage that a candidate has availed the services of a scribe, but is not eligible to do so, the candidate will be excluded from the process of evaluation, ranking, and admission. If such a candidate has already been admitted to any IISER, the candidate's admission will be cancelled. The opinion of the medical board constituted by individual IISER shall be final.

## **8. Compensatory Time**

- PwD candidates having disabilities with at least 40% impairment as applicable, are eligible for one hour compensatory time in the IISER Aptitude Test. Persons with less than 40% disability and having difficulty in writing covered under the definition of Section 2 (s) of the RPwD Act, 2016 but not covered under the definition of Section 2(r) of the said Act are also eligible for one hour compensatory time on the production of “Disability and Difficulty in Writing Certificate” (see Downloads section) duly

issued by the competent authority.

- If it is found at any stage that a candidate has availed of compensatory time, but is not eligible to do so, the candidate will be excluded from the process of evaluation, ranking and admission. If such a candidate has already been admitted to any IISER, the candidate's admission will be cancelled. The opinion of the medical board constituted by individual IISER shall be final.

## 9. OCI/PIO Candidates

OCI/PIO card holders can apply for IAT 2024, provided they satisfy other eligibility criteria. They shall be eligible to compete for the unreserved seats.

## 10. Foreign Nationals

Candidates who are not citizens of India AND do not hold OCI/PIO cards shall be considered foreign nationals. Such candidates, if eligible to appear for IAT 2024 may contact the Chairperson Joint Admissions Committee at [askjac2024@iiserb.ac.in](mailto:askjac2024@iiserb.ac.in) with the email subject line "Foreign National - Application for IAT 2024".

## 11. Online Application and Fee

- **Application Portal** – Candidates must apply through the online application portal at ([www.iiseradmission.in](http://www.iiseradmission.in)). Applications can be submitted only through the online portal where detailed instructions will be provided.

<b>For online application please visit: <a href="https://iiseradmission.in/">https://iiseradmission.in/</a></b>	
<b>Online application begins (IAT-2024)</b>	April 1, 2024 (Monday)
<b>Online application closes (IAT-2024)</b>	May 13, 2024 (Monday)

- **Application Fee** - The application fee is to be paid by the applicant during the

submission of the application form, starting on April 01, 2024.

- Rs. 2,000/- for candidates applying under General, EWS, OBC, and OBC-NCL categories.
  - Rs. 1,000/- for candidates applying under persons with disabilities (PwD), persons registered as Kashmiri Migrants (KM) and SC/ST category.
  - **The application fee is non-refundable.**
- **Seat Acceptance Fee (SAF)** - The Seat Acceptance Fee is to be paid only after an offer of admission has been made to the candidate. The SAF will have to be paid as per the category entered by the candidate in the application.
- Rs. 35,000/- (Rs. 25,000/- + Rs. 10,000/- (Nonrefundable administrative fee)) for General/EWS/OBC/OBC-NCL/PwD/KM categories.
  - Rs. 17,500/- (Rs. 12,500/- + Rs. 5000/- (Nonrefundable administrative fee)) for SC/ST categories.
  - Failure to deposit the SAF within the stipulated time will result in the cancellation of the offer. Furthermore, you will not be considered in any subsequent rounds of seat allotment during admission 2024.
  - Once you register in your allotted IISER, this amount will be adjusted against your first semester fee.

## **12. Documents required for application**

Given below is a list of documents/certificates whose scanned copies are to be uploaded at the time of online application for IAT 2024. **The formats of the certificates are given in the Annexure.**

- Class X certificate
- Class XII (or equivalent examination).
- If the class XII (or equivalent) marks sheet is not available now, then you can instead upload a signed declaration form - “DECLARATION BY THE

CANDIDATE IN LIEU OF ELIGIBILITY EXAM CERTIFICATE/ MARKSHEET” (see Annexure). Fill in the form, sign it, scan it and then upload. The scanned copies of the actual marks sheet must be uploaded on or before 2<sup>nd</sup> July 2024, failing which you will not be allotted a seat in any of the IISERs.

**For candidates seeking admission under the GEN-EWS category**

- As per the latest guidelines of the Government of India, GEN-EWS certificate should have been issued on or after April 01, 2024. If any GEN-EWS candidate fails to submit the GEN-EWS certificate (issued on or after April 01, 2024) at the time of online application, the candidate has to upload signed declaration form - “DECLARATION BY THE CANDIDATE IN LIEU OF GEN-EWS CERTIFICATE” (see Annexure).
- The candidate has to upload a fresh certificate (issued on or after **1 April 2024**) on or before July 2, 2024, as notified on the (<http://www.iiseradmission.in>) website.
- If the certificate is not uploaded by the given date and time, the candidate will not be considered for admission under this category. If qualified, the category will be adjusted accordingly in the Common Rank List.

**For candidates seeking admission under the OBC-NCL category**

- As per the latest guidelines of the Government of India, OBC-NCL certificate should have been issued on or after April 01, 2024.
- If any OBC-NCL candidate fails to submit the OBC-NCL certificate (issued on or after April 01, 2024) at the time of online application, the candidate must upload a signed declaration form - “DECLARATION BY THE CANDIDATE IN LIEU OF OBC-NCL CERTIFICATE” (see Annexure).
- The candidate has to upload a fresh certificate (issued on or after **1 April 2024**) on or before July 2, 2024, as notified on the ([www.iiseradmission.in](http://www.iiseradmission.in)) website.
- If the certificate is not uploaded by the given date and time, the candidate will not be considered for admission under this category. If qualified, the category will be adjusted accordingly in the Common Rank List.

**For candidates seeking admission under the SC or ST category**

- Caste (for SC) or tribe (for ST) certificate as per the latest guidelines of the Government of India.

**For candidates seeking admission under the PwD category**

- Physical Disability certificate (see Annexure for applicable form) issued by the competent authority.
- Dyslexic candidates need to submit Form Dyslexic-1 and Form Dyslexic-2 instead of FORM-PwD. The certificate must mention ‘SEVERE’ under the Dyslexia category to enable the candidate to get the benefit of the PwD category.
- PwD Candidates who are eligible for the services of a scribe/compensatory time need to upload certificates as mentioned in the sections on Services of a Scribe and Compensatory time.

**Note:** Originals of all the forms/certificates will have to be submitted at the time of admission.

- ❖ During online application, candidates will have to upload digital copies of forms/certificates. The acceptable file sizes are mentioned below:

<b>Type of Document</b>	<b>File Size</b>
Photograph	Upto 200 KB
Signature	Upto 200 KB
Photo ID	200KB- upto 1 MB
Caste Certificate	200KB- upto 1 MB
10 <sup>th</sup> Marksheet	200KB- upto 1 MB
12 <sup>th</sup> Marksheet	200KB- upto 1 MB
PwD Certificate	200KB- upto 1 MB

Kashmiri Migrant Certificate	200KB- upto 1 MB
OCI/PIO/Foreign National Citizenship supporting document	200KB- upto 1 MB

**All other certificates/Forms: 200KB- upto 1 MB**

**Important Notes:**

- Additional documents will be required at the time of admission. These will be specified at a later date.
- It should be noted that suppression or distortion of any fact, identity, category, educational qualification, nationality, etc. made in a candidate's application form will result in the cancellation of the admission or the degree acquired at a later stage.

**13. Selecting IISERs during filling up the counselling form**

- At the time of filling up the online application for counselling, a candidate will be shown 9 programs across 7 IISERs.
- Candidates are required to make a preference list from among these 9 programs that the candidate wants to be considered for admission.
- The preference order must be from the most preferred (first preference) to the least preferred (last preference).
- The preference list must contain at least one IISER program.
- A candidate will be considered ONLY for those IISER programs which are on the candidate's preference list. Consequently, a candidate will not be considered for admission to an IISER program that is not mentioned in the candidate's preference list.

## 14. Seat Matrix

The tentative total number of seats available for the BS-MS/BS program is 1933, with each IISER having the following number of seats.

<b>BS-MS Program</b>	<b>Number of Seats</b>
IISER Berhampur	180
IISER Bhopal	255
IISER Kolkata	250
IISER Mohali	250
IISER Pune	288
IISER Tirupati	275
IISER Thiruvananthapuram	320
<b>Total</b>	<b>1818</b>
<b>BS Program</b>	<b>Number of Seats</b>
IISER Bhopal (Engineering Sciences)	84
IISER Bhopal (Economic Sciences)	31
<b>Total</b>	<b>115</b>

## 15. Important Dates

Application Portal opens	April 1, 2024
Application Portal closes	May 13, 2024
Corrections in applications forms	May 16-17, 2024
Release of hall ticket	June 1, 2024



(i) IISER Aptitude Test (ii) Answer Key display	June 9, 2024
(i) Upload of student's response form (ii) Portal opens for filing objections	June 12, 2024
Portal closes for filing objections	June 14, 2024
Display of final answer keys	June 21, 2024
IAT Results publication	June 25, 2024
Registration for counselling process	June 26-July 1, 2024
Document verification	July 2-5, 2024
First round of admission offers	July 7, 2024

## 16. Admission Process

- a. The entire counselling process will be conducted online. There is no need for the candidates to visit any IISER in-person during the counselling process.
- b. Candidates can check if they received admission offers by logging into their application portal.
- c. Admission offers to any candidate will be given strictly based on the following factors:
  - ✓ seat availability at each IISER in the current allocation round,
  - ✓ IAT rank obtained by the candidate.
  - ✓ IISER preferences given by the candidate, and
  - ✓ the category to which the candidate belongs.
- d. If a candidate receives an admission offer, he/she can either choose to accept the seat OR reject it. If a candidate rejects the offered seat or if no action is taken by the candidate before the deadline, then the candidate will not be able to participate in further rounds of counselling.
- e. If a candidate receives an offer, then to accept the seat offered, the student must pay a seat acceptance fee through online mode before the prescribed deadline. If the

seat acceptance fee is not paid, the candidate will not be considered for admission in subsequent allocation rounds.

- f. After accepting the offer and paying seat acceptance fee, the candidate can exercise two options:
  - Candidate can FREEZE the seat (they will not participate in further rounds of counselling),
  - Candidates can FLOAT (they will participate in further rounds of counselling to get their higher preferences). The FLOAT option is activated by default for those who pay the seat acceptance fee.
- g. A student who has chosen to FLOAT will be considered for seat allocation again in the next round. If they are eligible to secure a seat in an IISER that is higher in their preference list than the currently accepted one, they will be offered that seat.
- h. If seats in preferred IISERs are filled, then the candidate will not be considered in further rounds of counselling. For example, if a candidate had given only two preferences as IISER-X and IISER-Y, and if the seats in these IISERs are filled, then the candidate will not be considered for seat allocation anymore. This process happens even if the student has not been allocated any seat in previous counselling rounds.
- i. Admission offers given are provisional. They will be confirmed only after the candidates report at the IISER where they have secured admission and provide all the required documents in original.
- j. Requests for extension of date or time for seat acceptance will not be entertained under any circumstances. Published deadlines will be strictly followed.
- k. All the announcements related to the admission process will appear on this website. Candidates must follow this website for any updates.

## **17. Withdrawal Process**

- The application fee is not refundable.
  - Refund policy for the Seat Acceptance Fee is given below:
- i. The candidate can withdraw his/her seat/offer by pressing the button

“*WITHDRAW OFFER*” in the application portal. No other form/method of withdrawal is accepted. Email or phone communication in this regard is not entertained.

- ii. Once a candidate has withdrawn, he/she will not be considered for further rounds of the admission process. A withdrawn candidate cannot re-enter the admission process again under any circumstances.
- iii. There are two important withdrawal dates:
  - ❖ Round-wise withdrawal (RW) date, and
  - ❖ Final withdrawal (FW) dateRW and FW dates will be announced on the admission website.
- iv. If a candidate withdraws from the counselling process before the RW deadline, then no cancellation fee will be applicable.
- v. If a candidate withdraws after the RW deadline, but on or before FW, then the non-refundable amount will be deducted.
- vi. IISERs and JAC are not liable for losses incurred if the candidate’s application is not withdrawn in the above manner and on or before the stipulated date and time.
- vii. Once a candidate has withdrawn the offer through the counselling portal, the amount due will be returned through the same channel (credit/debit card, bank account etc.) used to pay the SAF. Such candidates do not have to take any additional steps towards their SAF refund. The refund process will start only after three weeks of the completion of the admission process.
- viii. If the candidate does not withdraw on or before the FW deadline, then the SAF will be transferred to the allotted IISER. Any further withdrawal will be taken care of by that particular IISER following the instructions given below.
- ix. If the candidate fails to join in-person at the offered IISER on the joining date mentioned in the offer letter of the respective IISER, the cancellation fee decided by the concerned IISER will be applicable.
- x. Further, candidates who have paid SAF but fail to show up by the last date of admission fee payment at the concerned IISER will not be considered for further rounds of admission.

- xii. If the candidate decides to discontinue after joining any particular IISER, the refund policy of that IISER will be applicable.

The Seat Acceptance Fee will be eventually transferred to the IISER which the candidate finally registers at, and the respective IISER will collect the remainder of the fees that may be applicable locally from the candidate upon registration at the particular IISER.

**Note:**

- Requests for extension of last date for withdrawal will NOT be entertained.
- For withdrawals before the round-wise deadline, the entire SAF will be refunded in full.
- For withdrawals after the round-wise deadline but before the final withdrawal date Rs. 10,000.00 (Rs. 5,000.00 for SC/ST, PwD and KM) will be deducted. The rest of the SAF will be refunded.
- For withdrawals after the final withdrawal date, withdrawal, and refund rules of admitting IISER will apply.

## **PART 3: IISER APTITUDE TEST**

### **18. The Examination**

IISER Aptitude Test (IAT) will be conducted as a computer-based test in centers across India. IAT will consist of 60 questions, 15 questions each from Biology, Chemistry, Mathematics, and Physics.

Total time for answering the test will be 180 minutes. Questions will be of multiple choice type with only one correct answer.

- Each correct answer will be awarded 4 marks.
- Each incorrect answer will lead to the deduction of 1 mark.

- Unanswered questions will be awarded 0 mark.
- Therefore, Maximum marks in IAT will be 240.

**The total marks obtained by a candidate out of 240 will be considered for preparing the Rank List.**

Not every candidate appearing in IAT 2024 will be awarded a rank. Rank cut-off will be announced at an appropriate time. Further, getting a rank does not guarantee an offer/admission to an IISER.

## **19. Question Papers and Mock Tests**

- The question paper will be in English and Hindi languages.
- The candidates must read all the given instructions provided in the question papers at the time of examination.

**Mock Tests** – Will be available soon on the webpage [www.iiseradmission.in](http://www.iiseradmission.in).

## **20. Mode of Examination**

The IISER Aptitude Test 2024 will be conducted only in the Computer Based Test (CBT) mode.

## **21. Cities and Towns where IISERs Aptitude Test will be held**

IISERs Aptitude Test will be conducted at different locations across the country. During the online application process, candidates will have to indicate several cities as choices for appearing in IAT.

## **22. Important Instructions to be followed on the day of examination**

- ✓ Candidates must carry their Hall Ticket on an A4 size paper using a laser printer. Hall

Ticket is valid only if the candidate's photograph and signature images are legibly printed. Paste the photograph at the indicated place. The Hall Ticket is to be produced for verification at the time of the test. This Hall ticket is valid only for the test date and session time as specified.

- ✓ The Hall Ticket is to be produced for verification at the time of the test and at least one original (not scanned) valid (not expired) **photo identification card** (such as Voter ID, Passport, Pan Card, Driving License, Photo pasted Nationalized Bank Passbook, UID Aadhar card, Photo pasted 10th/12th Marksheet/Certificate/Admit Card should also be presented. The candidate's photograph and signature should be legibly printed and visible on the photo ID card and should match the name on the Hall Ticket. The Photo ID card should not be damaged or smudged.
- ✓ Make sure to print, fill up and carry the Self-Declaration form which will be present along with the Hall Ticket.
- ✓ Candidates are advised to locate their test centre and its accessibility at least a day before the test so that they can reach the centre on time on the day of the test.
- ✓ Candidates should **report at 7:00 AM** for the session. No candidate will be allowed inside the test centre after **8:30 AM**. PwD candidates will get priority entry into the test centre.
- ✓ Do Not wear any jewellery or other items containing metal. Mobile phones or any other electronic gadgets such as Smart watches, calculators are **NOT ALLOWED** inside the test centre. There is no facility for safekeeping of candidates' personal belongings outside the test hall and we are not responsible for its loss.
- ✓ **Only Hall Ticket, Original Photo ID Card, Transparent Water Bottle & Ball pen** will be allowed inside the test hall.
- ✓ Rough pad/sheet(s) will be provided to the candidates for rough work, which will have to be returned after the test. Candidates should clearly write their name and application number on the rough pad. An online non-programmable scientific calculator will be provided on the candidate's console. Please do not carry your own calculator.

- ✓ Friends and relatives accompanying the candidate will not be allowed inside the test centre.
- ✓ Candidates need to make their own travel and stay arrangements to attend the test.
- ✓ Request for change of test centre will **NOT** be entertained.
- ✓ Kindly be informed that the original copy of the Hall Ticket along with xerox copy of photo ID will be collected at the examination hall. Hence candidates are requested to keep an additional copy of the Hall Ticket for their own reference.

### **23. Result of the IISER Aptitude Test**

Results will be declared on June 25, 2024 (Tuesday). The candidates are requested to visit an online registered portal for their results.

### **24. Other Institutions using IAT for Admission to their Programs.**

The following Institutions use IAT for admitting students to their programs as specified below.

- a. Bachelor of Science (Research) program of Indian Institute of Science (IISc), Bangalore.
- b. BS-Medical Sciences and Engineering program of Indian Institute of Technology Madras (IITM).

Students who wish to apply to any of the above programs (IISc, IITM) MUST complete BOTH Step 1 and Step 2 detailed below.

**Step1:** Apply to IAT on the IISER admission portal

([www.iiseradmission.in](http://www.iiseradmission.in)).

**Step2:** Fill up the application form on the admission portal of IISc AND/OR IITM as applicable.

In other words, students wishing to apply for the programs listed above MUST apply to BOTH IAT AND the said program SEPARATELY.

## **SYLLABI**

### **BIOLOGY**

#### **Diversity In the Living World:**

**The living world:** The Diversity in the living world, Taxonomic categories,

**Biological classification:** Kingdoms (Monera, Protista, Fungi, Plantae, and Animalia), Viruses, Viroids and Lichens,

**Plant kingdom:** Algae, Bryophytes, Pteridophytes, Gymnosperms, Angiosperms,

**Animal kingdom:** Basis of classification of animals and Classification of Animals

#### **Structural Organisation In Plants And Animals:**

**Morphology of flowering plants:** The Root, The Stem, The Leaf, The Inflorescence, The Flower, The Fruit, The Seed, Semi-technical Description of a Typical, Flowering Plant, Description of Some Important Families,

**Anatomy of flowering plants:** The Tissue System, Anatomy of Dicotyledonous and Monocotyledonous Plants

**Structural organisation in animals:** Organ and Organ System, Amphibian-Frog

#### **Cell: Structure And Functions:**

**Cell: the unit of life:** A Cell, The Cell Theory, An Overview of Cell, Prokaryotic Cells, Eukaryotic Cells

**Biomolecules:** Analysis of Chemical Composition of organisms, Primary and Secondary Metabolites, Biomacromolecules, Proteins, Polysaccharides, Nucleic Acids, Structure of Proteins, Enzymes

**Cell cycle and cell division:** Cell Cycle, Mitosis and Meiosis and its significance

#### **Plant Physiology:**

**Photosynthesis in higher plants:** Photosynthesis, Early Experiments, Location of photosynthesis, Pigments involved in Photosynthesis, Light Reaction, The Electron Transport, Synthesis and utilization of ATP and NADPH, The C<sub>4</sub> Pathway, Photorespiration, Factors Affecting Photosynthesis

**Respiration in plants:** Do Plants Breathe? Glycolysis, Fermentation, Aerobic Respiration, The Respiratory Balance Sheet, Krebs/Citric acid cycle, Respiratory



Quotient

**Plant growth and development:** Growth, Differentiation, Dedifferentiation and Redifferentiation, Development, Plant Growth Regulators

### **Human Physiology:**

**Breathing and exchange of gases:** Respiratory Organs, Mechanism of Breathing, Exchange of Gases, Transport of Gases, Regulation of Respiration, Disorders of Respiratory System

**Body fluids and circulation:** Tissue Fluids-Blood, Lymph, Circulatory Pathways, Double Circulation, Regulation of Cardiac Activity, Disorders of Circulatory System

**Excretory products and their elimination:** Human Excretory System, Urine Formation, Function of the Tubules, Mechanism of Concentration of the Filtrate, Regulation of Kidney Function, Micturition, Role of other Organs in Excretion, Disorders of the Excretory System

**Locomotion and movement:** Types of Movement, Muscle, Skeletal System, Joints, Disorders of Muscular and Skeletal System

**Neural control and coordination:** Neural System, Human Neural System, Neuron as Structural and Functional Unit of Neural System, Central Neural System

**Chemical coordination and integration:** Endocrine Glands and Hormones, Human Endocrine System, Hormones of Heart, Kidney and Gastrointestinal Tract, Mechanism of Hormone Action

### **Reproduction:**

**Sexual reproduction in flowering plants:** Flower structure, Angiosperms, Pre-fertilisation: Structures and Events, Double Fertilisation, Post-fertilisation: Structures and Events, Apomixis and Polyembryony

**Human reproduction:** The Male Reproductive System, The Female Reproductive System, Gametogenesis, Menstrual Cycle, Fertilisation and Implantation, Pregnancy and Embryonic Development, Parturition and Lactation

**Reproductive health:** Reproductive Health – Problems and Strategies, Population Explosion and Birth Control, Medical Termination of Pregnancy, Sexually Transmitted Diseases, Infertility

### **Genetics And Evolution:**

**Principles of inheritance and variation:** Mendel's Laws of Inheritance, Inheritance of One Gene, Inheritance of Two Genes, Sex Determination, Mutation, Genetic Disorders

**Molecular basis of inheritance:** The DNA, The Search for Genetic Material, RNA World, Replication, Transcription, Genetic Code, Translation, Regulation of Gene Expression, Human Genome Project, DNA Fingerprinting

**Evolution:** Origin of Life, Evolution of Life Forms – A Theory, Evidence for Evolution, Adaptive Radiation, Biological Evolution, Mechanism of Evolution, Hardy – Weinberg Principle, Evolution, Origin and Evolution of Man

### **Biology In Human Welfare:**

**Human health and disease:** Common Diseases in Humans, Immunity, AIDS, Cancer, Drugs and Alcohol Abuse

**Microbes in human welfare:** Microbes in Household Products, Microbes in Industrial Products, Microbes in Sewage Treatment, Microbes in Production of Biogas, Microbes as Biocontrol Agents, Microbes as Biofertilisers

### **Biotechnology:**

**Biotechnology: principles and processes:** Principles of Biotechnology, Tools of Recombinant DNA Technology, Processes of Recombinant DNA Technology

**Biotechnology and its application:** Biotechnological Applications in Agriculture and Medicine, Transgenic Animals, Ethical Issues

### **Ecology:**

**Organisms and populations:** Populations, Logistic growth, Population interactions

**Ecosystem:** Ecosystem–Structure and Function, Productivity, Decomposition, Energy Flow, Ecological Pyramids

**Biodiversity and conservation:** Biodiversity and Biodiversity conservation

## **CHEMISTRY**

**Some Basic Concepts of Chemistry:** Matter and its nature, Dalton's atomic theory: Concept of atom, molecule, element, and compound, Laws of chemical combination, Atomic and molecular masses, mole concept, molar mass, percentage composition,

empirical and molecular formulae, Chemical equations, and stoichiometry

**Structure of the Atom:** Discovery of Sub-atomic Particles, Atomic Models, Developments Leading to the Bohr's Model of Atom, Bohr's Model for Hydrogen Atom, Towards Quantum Mechanical Model of the Atom, Quantum Mechanical Model of Atom

**Classification of Elements and Periodicity in Properties:** Genesis of Periodic Classification, Modern Periodic Law and the Present Form of the Periodic Table, Electronic Configurations of Elements and the Periodic Table, Electronic Configurations and Types of Elements: *s*-, *p*-, *d*-, *f*- Blocks, Periodic Trends in Properties of Elements

**Chemical Bonding and Molecular Structure:** Kössel-Lewis Approach to Chemical Bonding, Ionic or Electrovalent Bond, Bond Parameters, The Valence Shell Electron Pair Repulsion (VSEPR) Theory, Valence Bond Theory, Hybridisation, Molecular Orbital Theory, Bonding in Some Homonuclear Diatomic Molecules, Hydrogen Bonding

**The d- & f-block elements:** Position in the Periodic Table, Electronic Configurations of the *d*- Block Elements, General Properties of the Transition Elements (*d*-Block), Some Important Compounds of Transition Elements, The Lanthanoids, The Actinoids, Applications of *d*- and *f*- Block Elements

**Coordination compounds:** Werner's Theory of Coordination Compounds, Definitions of Some Important Terms Pertaining to Coordination Compounds, Nomenclature of Coordination Compounds, Isomerism in Coordination Compounds, Bonding in Coordination Compounds, Bonding in Metal Carbonyls, Importance and Applications of Coordination Compounds

**Thermodynamics:** Thermodynamic Terms, Measurement of  $\Delta U$  and  $\Delta H$ , Calorimetry, Enthalpy Change,  $\Delta H$  of a Reaction – Reaction Enthalpy, Enthalpies for Different Types of Reactions, Spontaneity, Gibbs Energy Change and Equilibrium

**Equilibrium:** Equilibrium in Physical Processes, Equilibrium in Chemical Processes – Dynamic Equilibrium, Law of Chemical Equilibrium and Equilibrium Constant, Homogeneous Equilibria, Heterogeneous Equilibria, Applications of Equilibrium Constants, Relationship between Equilibrium Constant  $K$ , Reaction Quotient  $Q$  and Gibbs Energy  $G$ , Factors Affecting Equilibria, Ionic Equilibrium in Solution, Acids, Bases and Salts, Ionization of Acids and Bases, Buffer Solutions, Solubility Equilibria of Sparingly Soluble Salts

**Redox Reactions:** Classical Idea of Redox Reactions-Oxidation and Reduction Reactions, Redox Reactions in Terms of Electron Transfer Reactions, Oxidation Number, Redox Reactions and Electrode Processes

**Solutions:** Types of Solutions, Expressing Concentration of Solutions, Solubility, Vapour

Pressure of Liquid Solutions, Ideal and Non-ideal Solutions, Colligative Properties and Determination of Molar Mass, Abnormal Molar Masses

**Electrochemistry:** Electrochemical Cells, Galvanic Cells, Nernst Equation, Conductance of Electrolytic Solutions, Electrolytic Cells and Electrolysis, Batteries, Fuel Cells, Corrosion

**Chemical Kinetics:** Rate of a Chemical Reaction, Factors Influencing Rate of a Reaction, Integrated Rate Equations, Temperature Dependence of the Rate of a Reaction, Collision Theory of Chemical Reactions

**Organic Chemistry – Some Basic Principles and Techniques:** General Introduction, Tetravalence of Carbon: Shapes of Organic Compounds, Structural Representations of Organic Compounds, Classification of Organic Compounds, Nomenclature of Organic Compounds, Isomerism, Fundamental Concepts in Organic Reaction Mechanism, Methods of Purification of Organic Compounds, Qualitative Analysis of Organic Compounds, Quantitative Analysis

**Hydrocarbons:** Classification, Alkanes, Alkenes, Alkynes, Aromatic Hydrocarbon, Carcinogenicity and Toxicity

**Haloalkanes and haloarenes:** Classification, Nomenclature, Nature of C–X Bond, Methods of Preparation of Haloalkanes, Preparation of Haloarenes, Physical Properties, Chemical Reactions, Polyhalogen Compounds

**Alcohols, phenols, and ethers:** Classification, Nomenclature, Structures of Functional Groups, Alcohols and Phenols, Some Commercially Important Alcohols, Ethers

**Aldehydes, ketones, and carboxylic acids:** Nomenclature and Structure of Carbonyl Group, Preparation of Aldehydes and Ketones, Physical Properties, Chemical Reactions, Uses of Aldehydes and Ketones, Nomenclature and Structure of Carboxyl Group, Methods of Preparation of Carboxylic Acids, Physical Properties, Chemical Reactions, Uses of Carboxylic Acids

**Organic compounds containing nitrogen:** Structure of Amines, Classification, Nomenclature, Preparation of Amines, Physical Properties, Chemical Reactions, Method of Preparation of Diazonium Salts, Physical Properties, Chemical Reactions, Importance of Diazonium Salts in Synthesis of Aromatic Compounds

**Biomolecules:** Carbohydrates, Proteins, Enzymes, Vitamins, Nucleic Acids, Hormones

## MATHEMATICS

### Sets and Logic

**Set:** Representing sets in different ways. Subsets. Different types of sets e.g. universal set, finite or infinite sets, intervals in real line. Various operations on sets. Properties of various operations on sets. Venn diagram. Ordered pairs. Cartesian products.

**Relations & functions:** Type of relations. Equivalence relation. Functions. Types of functions. Composition of functions, inverse of a function. Real valued functions: algebraic operations of real valued functions, different types of real valued functions (e.g. polynomial, rational, modulus, signum, etc), graphical representation of real valued functions.

### Basic counting techniques

**Permutations and Combinations:** Fundamental principles of counting. Factorial  $n$ . Permutations and combinations- derivation of formulae and their connections. Applications.

**Binomial Theorem:** Binomial theorem for positive integral indices. Pascal's triangle. General and middle term in binomial expansion. Applications.

### Complex numbers, linear and quadratic equations

**Complex Numbers:** Motivation for complex numbers. Representation of complex numbers in the plane as a pair of real numbers and their representation of the form  $a+ib$ . Polar representation and the Argand plane. Algebra of complex numbers. Modulus and conjugate of a complex number. Statement of the Fundamental Theorem of Algebra.

**Quadratic Equations:** Quadratic equations and their solutions. Relation between roots and the coefficients of quadratic equations.

**Linear Inequalities:** Inequalities, Algebraic solution of linear inequalities in one variable and their graphical representation.

### Trigonometric functions

Measures of angles and their conversions. Trigonometric functions, identities, and their geometric interpretations. Applications of trigonometric equations. Inverse trigonometric functions and properties. Graphs of trigonometric functions.

## **Vectors**

Vectors and scalars. Magnitude and direction of a vector. Direction cosines/ ratios. Types of vectors. Position vector. Negative and components of a vector. Addition of vectors. Multiplication of a vector by a scalar. Position vector of a point dividing a line segment in the given ratio. Dot and cross products of vectors. Projection of a vector on another vector/ line.

## **Matrices & determinants**

**Matrices:** Concept, notation, order, equality, transpose of a matrix, types of matrices, simple properties of addition, multiplication, scalar multiplication, and multiplication of matrices. Concept of elementary row and column operations. Invertible matrices and proof of the uniqueness of inverse, if it exists. Applications of matrices.

**Determinants:** Determinant of a square matrix (up to  $3 \times 3$  matrices), properties of determinants, minors, cofactors, and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Applications of determinants.

## **Coordinate geometry**

Cartesian system of rectangular coordinates in a plane. Shifting of origin.

**Straight Lines:** Slope of a line and angle between two lines. Various forms of equations of a line. General equation of a line. Distance of a point from a line.

**Conic Sections:** Sections of a cone: Circles, ellipse, parabola, hyperbola, a point, a straight line, and a pair of intersecting lines as a degenerated case of a conic section. Standard equations and simple properties of parabola, ellipse, and hyperbola. Standard equation of a circle, the general form of the equation of a circle.

## **Three-dimensional geometry**

Coordinate axes and planes. Distance between points. Section formula. Direction cosines and direction ratios of a line. Various forms of the equation of a line. Angle between two lines and two planes. Shortest distance between two lines in three-dimensional space. Coplanar and skew line. Cartesian and vector equation of a plane. Distance of a point from a plane.

## **Sequences & series**

Arithmetic and Geometric progressions. Sums of finite and infinite geometric series. Sums of finite terms in arithmetic series. Arithmetic mean (A.M.) and geometric mean

(G.M.). Relation between A.M and G.M. Sums of first n-terms of the special series, for example,  $\sum n$ ,  $\sum n^2$  and  $\sum n^3$ .

### **Limit & continuity**

Limits. Continuity. Algebraic properties of limits. Algebraic properties of continuous functions. Limits and continuity of real valued functions, polynomials, rational functions, trigonometric functions, exponential functions, and inverse functions.

### **Differentiation**

**Differentiation:** Definition of derivative and relating it to slope of tangent of the curve. Derivative of sum, difference, product, and quotient of functions. Derivative of some standard functions e.g. polynomial, trigonometric, inverse trigonometric, exponential, and logarithmic functions. Derivative of composite functions via chain rule. Derivative of implicit functions and functions in parametric forms. Logarithmic derivative. Second order derivatives.

**Application of Derivatives:** Rate of change, increasing/decreasing functions, tangents and normals maxima and minima.

### **Integration**

**Integration:** Integration as inverse process of differentiation. Integrals involving algebraic, trigonometric, exponential, and logarithmic functions. Integration of a variety of functions by substitution, by partial fractions, by parts and using trigonometric identities. Evaluation of integrals of some standard types. Fundamental theorem of calculus. Basic properties and evaluation of definite integrals.

**Applications of Integration:** Finding the area of region under simple curves. Finding the area of the region between two simple curves.

### **Differential equations**

Definition, order, degree. Formation of a differential equation. Solution by separation of variables. Homogeneous differential equation of first order and degree. Solution of the equations  $dy/dx + P y=Q$  where P and Q are functions of x or constant and similarly for  $dx/dy + P x=Q$  where P and Q are functions of y or constant.

### **Statistics, Probability & Linear Programming**

**Statistics:** Measure of dispersion; mean deviation, variance, and standard deviation of ungrouped/grouped data.

**Probability:** Random experiments: outcomes, sample spaces (set representation). Events: Occurrence of events, ‘not’, ‘and’ & ‘or’ events, exhaustive events, mutually exclusive events. Axiomatic (set theoretic) probability. Probability of an event, probability of ‘not’, ‘and’, & ‘or’ events. Multiplication theorem on probability. Conditional probability, independent events, total probability, Baye’s theorem.

## PHYSICS

**Units and Measurements:** The international system of units; Significant figures; Dimensions of physical quantities; Dimensional formulae and dimensional equations; Dimensional analysis and its applications.

**Motion in a Straight Line:** Instantaneous velocity and speed; Acceleration; Kinematic equations for uniformly accelerated motion.

**Motion in a Plane:** Scalars and vectors; Multiplication of vectors by real numbers; Addition and subtraction of vectors – graphical method; Resolution of vectors; Vector addition – analytical method; Motion in a plane; Motion in a plane with constant acceleration; Projectile motion; Uniform circular motion.

**Laws of Motion:** The law of inertia; Newtons first law of motion; Newtons second law of motion; Newtons third law of motion; Conservation of momentum; Equilibrium of a particle; Common forces in mechanics; Circular motion.

**Work, Energy and Power:** Notions of work and kinetic energy: The work-energy theorem; Work; Kinetic energy; Work done by a variable force; The work-energy theorem for a variable force; The concept of potential energy; The conservation of mechanical energy; The potential energy of a spring; Power; Collisions.

**System of Particles and Rotational Motion:** Centre of mass; Motion of centre of mass; Linear momentum of a system of particles; Vector product of two vectors; Angular velocity and its relation with linear velocity; Torque and angular momentum; Equilibrium of a rigid body; Moment of inertia; Kinematics of rotational motion about a fixed axis; Dynamics of rotational motion about a fixed axis; Angular momentum in case of rotations about a fixed axis.

**Gravitation:** Kepler’s laws; Universal law of gravitation; The gravitational constant; Acceleration due to gravity of the earth; Acceleration due to gravity below and above the surface of earth; Gravitational potential energy; Escape speed; Earth satellites; Energy of an orbiting satellite.

**Mechanical Properties of Solids:** Stress and strain; Hooke’s law; Stress-strain curve; Elastic moduli; Applications of elastic behaviour of materials.



**Mechanical Properties of Fluids:** Pressure; Streamline flow; Bernoulli's principle; Viscosity; Surface tension.

**Thermal Properties of Matter:** Temperature and heat; Measurement of temperature; Ideal-gas equation and absolute temperature; Thermal expansion; Specific heat capacity; Calorimetry; Change of state; Heat transfer; Newton's law of cooling.

**Thermodynamics:** Thermal equilibrium; Zeroth law of thermodynamics; Heat, internal energy and work; First law of thermodynamics; Specific heat capacity; Thermodynamic state variables and equation of state; Thermodynamic processes; Second law of thermodynamics; Reversible and irreversible processes; Carnot engine.

**Kinetic Theory:** Molecular nature of matter; Behaviour of gases; Kinetic theory of an ideal gas; Law of equipartition of energy; Specific heat capacity; Mean free path.

**Oscillations:** Periodic and oscillatory motions; Simple harmonic motion; Simple harmonic motion and uniform circular motion; Velocity and acceleration in simple harmonic motion; Force law for simple harmonic motion; Energy in simple harmonic motion; The Simple Pendulum.

**Waves:** Transverse and longitudinal waves; Displacement relation in a progressive wave; The speed of a travelling wave; The principle of superposition of waves; Reflection of waves; Beats.

**Electric Charges and Fields:** Electric Charge; Conductors and insulators; Basic properties of electric charge; Coulomb's law; Forces between multiple charges; Electric field; Electric field lines; Electric flux; Electric dipole; Dipole in a uniform external field; Continuous charge distribution; Gauss's law; Applications of Gauss's law.

**Electrostatic Potential and Capacitance:** Electrostatic potential; Potential due to a point charge; Potential due to an electric dipole; Potential due to a system of charges; Equipotential surfaces; Potential energy of a system of charges; Potential energy in an external field; Electrostatics of conductors; Dielectrics and polarisation; Capacitors and capacitance; The parallel plate capacitor; Effect of dielectric on capacitance; Combination of capacitors; Energy stored in a capacitor.

**Current Electricity:** Electric current; Electric currents in conductors; Ohm's law; Drift of electrons and the origin of resistivity; Limitations of Ohm's law; Resistivity of various materials; Temperature dependence of resistivity; Electrical energy, power; Cells, emf, internal resistance; Cells and resistors in series and in parallel; Kirchhoff's rules; Wheatstone bridge.

**Moving Charges and Magnetism:** Magnetic force; Motion in a magnetic field;

Magnetic field due to a current element, Biot-Savart law; Magnetic field on the axis of a circular current loop; Ampere's circuital law; The solenoid; Force between two parallel currents, the Ampere; torque on current loop, magnetic dipole; The moving coil galvanometer.

**Magnetism and Matter:** The bar magnet; Magnetism and Gauss's law; Magnetisation and magnetic intensity; Magnetic properties of materials.

**Electromagnetic Induction:** The experiments of Faraday and Henry; Magnetic flux; Faraday's law of induction; Lenz's law and conservation of energy; Motional electromotive force; Inductance; AC generator.

**Alternating Current:** AC voltage applied to a resistor; Representation of AC current and voltage by rotating vectors – phasors; AC voltage applied to an inductor; AC voltage applied to a capacitor; AC voltage applied to a series LCR circuit; Power in AC circuit: the power factor; Transformers.

**Electromagnetic Waves:** Displacement current; Electromagnetic waves; Electromagnetic spectrum.

**Ray Optics and Optical Instruments:** Reflection of light by spherical mirrors; Refraction; Total internal reflection; Refraction at spherical surfaces and by lenses; Refraction through a prism; Optical instruments.

**Wave Optics:** Huygens principle; Refraction and reflection of plane waves using Huygens principle; Coherent and incoherent addition of waves; Interference of light waves and Young's experiment; Diffraction; Polarisation.

**Dual Nature of Radiation and Matter:** Electron emission; Photoelectric effect; Experimental study of photoelectric effect; Photoelectric effect and wave theory of light; Einstein's photoelectric equation: energy quantum of radiation; Particle nature of light: the photon; Wave nature of matter.

**Atoms:** Alpha-particle scattering and Rutherford's nuclear model of atom; Atomic spectra; Bohr model of the hydrogen atom; The line spectra of the hydrogen atom; De Broglie's explanation of Bohr's second postulate of quantisation.

**Nuclei:** Atomic masses and composition of nucleus; Size of the nucleus; Mass-energy and nuclear binding energy; Nuclear force; Radioactivity; Nuclear energy.

**Semiconductor Electronics:** Materials, Devices and Simple Circuits: Classification of metals, conductors, and semiconductors; Intrinsic semiconductor; Extrinsic semiconductor; p-n junction; Semiconductor diode; Application of junction diode as a rectifier.

**ANNEXURE:**  
**CERTIFICATE AND FORMS**  
**FORMATS**

**FORM-GEN-EWS**

**Government of .....**

**(Name & Address of the authority issuing the certificate)**

**INCOME & ASSET CERTIFICATE TO BE PRODUCED BY ECONOMICALLY  
WEAKER SECTIONS**

Certificate No. \_\_\_\_\_

Date: \_\_\_\_\_

**VALID FOR THE YEAR \_\_\_\_\_**

1. This is to certify that Shri/Smt./Kumari \_\_\_\_\_ son/daughter/wife of permanent resident of \_\_\_\_\_, Village/Street \_\_\_\_\_, Post Office \_\_\_\_\_ District \_\_\_\_\_ in the State/ Union Territory \_\_\_\_\_, Pincode \_\_\_\_\_, whose photograph in attested below belongs to Economically Weaker Sections, since the gross annual income\* of his/her **“family”**\*\* is below Rs. 8 lakh (Rupees Eight Lakh only) for the financial year \_\_\_\_\_. His/her family does not own or possess any of the following assets\*\*\*:
  - I. 5 acres of agricultural land and above;
  - II. Residential flat of 1000 sq. ft. and above;
  - III. Residential plot of 100 sq. yards and above in notified municipalities;
  - IV. Residential plot of 200 sq. yards and above in areas other than the notified municipalities.
2. Shri/Smt./Kumari \_\_\_\_\_ belongs to the \_\_\_\_\_ caste which is not recognized as a Schedule Caste, Schedule Tribe and Other Backward Classes (Central List).

Recent Passport size  
attested photograph of  
the applicant

**The income and the assets of the families  
as mentioned would be required to be  
certified by an officer not below the rank  
of Tehsildar in the States/UTs.**

Signature with seal of Officer\_\_\_\_\_

Name\_\_\_\_\_

Designation\_\_\_\_\_

\* **Note1:** Income covered all sources i.e. salary, agricultural, business, profession, etc.

\*\* **Note2:** The term “**Family**” for this purpose includes the person, who seeks benefit of reservation, his/her parents are siblings below the age of 18 years as also his/her spouse and children below the age of 18 years.

\*\*\* **Note3:** The property held by a “**Family**” in different locations or different places/cities have been clubbed while applying the land or property holding test to determine EWS status.

**FORM-GEN-EWS**

**Prescribed Format of OBC NCL Certificate**

**FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES  
APPLYING FOR APPOINTMENT TO POSTS/ ADMISSION TO CENTRAL EDUCATIONAL  
INSTITUTIONS (CEIs), UNDER THE GOVERNMENT OF INDIA**

This is to certify that Shri/ Smt./ Kum .....Son/Daughter of Shri/Smt.  
..... of village/Town ..... District/Division  
..... in the Community which is recognized as a backward class under:

- i. Resolution No.12011/68/93-BCC (C) dated 10/09/93 published in the Gazette of India Extraordinary Part I Section I No.186 dated 13/09/93.
- ii. Resolution No.12011/9/94-BCC dated 19/10/94 published in the Gazette of India Extraordinary Part I Section I No.163 dated 20/10/94.
- iii. Resolution No.12011/7/95-BCC dated 24/05/95 published in the Gazette of India Extraordinary Part I Section I No.88 dated 25/05/95.
- iv. Resolution No.12011/96/94-BCC dated 9/03/96.
- v. Resolution No.12011/44/96-BCC dated 6/12/96 published in the Gazette of India Extraordinary Part I Section I No.210 dated 11/12/96.
- vi. Resolution No.12011/13/97-BCC dated 03/12/97.
- vii. Resolution No.12011/99/94-BCC dated 11/12/97.
- viii. Resolution No.12011/68/98-BCC dated 27/10/99.
- ix. Resolution No.12011/88/98-BCC dated 06/12/99 published in the Gazette of India Extraordinary Part I Section I No.270 dated 06/12/99.
- x. Resolution No.12011/36/99-BCC dated 04/04/2000 published in the Gazette of India Extraordinary Part I Section I No.71 dated 04/04/2000.
- xi. Resolution No.12011/44/99-BCC dated 21/09/2000 published in the Gazette of India Extraordinary Part I Section I No.210 dated 21/09/2000.
- xii. Resolution No.12015/9/2000-BCC dated 06/09/2001.
- xiii. Resolution No.12011/1/2001-BCC dated 19/06/2003.
- xiv. Resolution No.12011/4/2002-BCC dated 13/01/2004.

- xv. Resolution No.12011/9/2004-BCC dated 16/01/2006 published in the Gazette of India Extraordinary Part I Section I No.210 dated 16/01/2006.
- xvi. Resolution No.12011/14/2004-BCC dated 12/03/2007.
- xvii. Resolution No.12011/16/2007-BCC dated 12/10/2007.
- xviii. Resolution No.12019/6/2005-BCC dated 30/07/2010.
- xix. Resolution No.12015/2/2007-BCC dated 18/08/2010. xx. Resolution No.12015/15/2008-BCC dated 16/06/2011.
- xxi. Resolution No.12015/13/2010-BC-II dated 08/12/2011.
- xxii. Resolution No.12015/5/2011-BC-II dated 17/02/2014.
- xxiii. Resolution No.12011/04/2014-BC-II dated 14/01/2015.
- xxiv. Resolution No.12011/7/2014-BC-II dated 23/01/2015.
- xxv. Resolution No.12011/1/2015-BC-II dated 27/05/2015.
- xxvi. Resolution No.12015/05/2011-BC-II dated 14/07/2015.
- xxvii. Resolution No.12011/06/2014-BC-II dated 09/09/2015.
- xxviii. Resolution No.12011/13/2016-BC-II dated 25/05/2016.
- xxix. Resolution No.12011/14/2016-BC-II dated 13/06/2016.
- xxx. Resolution No.12011/15/2016-BC-II dated 30/06/2016.
- xxxi. Resolution No.12011/4/2016-BC-II dated 11/08/2016.
- xxxii. Resolution No.12011/6/2014-BC-II dated 06/12/2016.
- xxxiii. Resolution No.12011/13/2016-BC-II dated 22/12/2016.
- xxxiv. Resolution No.12012/1/2017-BC-II dated 18/01/2017.
- xxxv. Resolution No.12011/7/2017-BC-II dated 28/07/2017.
- xxxvi. Resolution No.36033/1/2013-Estt. (Res.) dated 13/09/2017.
- xxxvii. Resolution No.36033/2/2018-Estt. (Res.) dated 08/06/2018.

Shri/Smt./Kum. .... and/or his family ordinarily reside(s) in the..... District/Division of..... state. This is also to certify that he/she does not belong to the persons/section (Creamy Layer) mentioned in Column 3 of the Schedules of the Government of India. Department of Personnel & Training O.M. No. 36012/22/93-- Estt. (SCT) dated 08/09/93 which is modified vide OM No.36033/3/2004 Estt.(Res.) dated 09/03/2004.

Dated: .....

District Magistrate/ Deputy Commissioner/  
Competent Authority Seal

NOTE:

- a. The term ordinarily used here will have the same meaning as in Section 20 of the Representation of the People Act. 1950.
- b. The authorities compete to issue Caste Certificates are indicated below:
  - i. District Magistrate/Additional Magistrate/Collector/Deputy Commissioner/Additional Deputy Commissioner/ Deputy Collector/ 1st Class Stipendiary Magistrate/ Sub-Divisional Magistrate/ Taluka Magistrate/ Executive Magistrate/Extra Assistant Commissioner (not below the rank of 1st Class Stipendiary Magistrate).
  - ii. Chief Presidency Magistrate/ Additional Chief Presidency Magistrate/ Presidency Magistrate.
  - iii. Revenue Officer not below the rank of Tehsildar and
  - iv. Sub--Divisional Officer of the area where the candidate and/ or his family resides.

**FORM-OBC-NCL**



## **FORM OF CASTE CERTIFICATE FOR SC/ST**

1. This is to certify that Shri\*/Shrimati/Kumari..... Son/Daughter  
of.....Village/Town...../District/Division\* .....  
.....State/Union Territory belongs to the..... Caste\*/Tribe which  
is recognized as a Scheduled Caste/Tribe under:

\*The Constitution Scheduled Castes Order, 1950.

\*The Constitution Scheduled Tribes Order, 1950.

\*The Constitution (Scheduled Castes) (Union Territories) (Part C States) Order, 1951.

\*The Constitution (Scheduled Tribes) (Union Territories) (Part C States) Order, 1951.

[As amended by the Scheduled Castes and Scheduled Tribes List (Modification Order, 1956, the Bombay Reorganisation Act, 1960, the Punjab Reorganisation Act, 1966, the State of Himachal Pradesh Act, 1970, the North Eastern Areas (Reorganisation) Act, 1971 and the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 1976.]

\*The Constitution (Jammu and Kashmir)\* Scheduled Castes Orders, 1956.

\*The Constitution (Andaman and Nicobar Islands)\* Scheduled Castes Order, 1959, as amended by the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 1976.

\*The Constitution (Dadra and Nagar Haveli)\* Scheduled Castes Order, 1962.

\*The Constitution (Dadra and Nagar Haveli)\* Scheduled Tribes Order, 1962.

\*The Constitution (Pondicherry) Scheduled Castes Order, 1964.

\*The Constitution (Uttar Pradesh) Scheduled Tribes Order, 1967.

\*The Constitution (Goa, Daman and Diu) Scheduled Castes Order, 1968.

\*The Constitution (Goa, Daman and Diu) Scheduled Tribes Order, 1968.

\*The Constitution (Nagaland) Scheduled Tribes Order, 1970.

\*The Constitution (Sikkim) Scheduled Castes Order, 1978.

\*The Constitution (Sikkim) Scheduled Tribes Order, 1978.

\*The Constitution (Jammu and Kashmir) Scheduled Tribes Order, 1989.

\*The Constitution (SC) Orders (Amendment) Act, 1990.

\*The Constitution (ST) Order (Amendment) Ordinance Act, 1991.

\*The Constitution (ST) Order (Amendment) Ordinance Act, 1996.

\*The Constitution (Scheduled Castes) Orders (Amendment) Act, 2002.

\*The Constitution (Scheduled Castes) Orders (Second Amendment) Act, 2002.

\*The Scheduled Castes and Scheduled Tribes Orders (Amendment) Act, 2002.

2. Applicable in the case of Scheduled Castes/Scheduled Tribes persons who have migrated from one State/Union Territory Administration.

This certificate is issued on the basis of the Scheduled Castes/Scheduled Tribes Certificate issued to Shri/Shrimati\* \_\_\_\_\_ father/mother\* \_\_\_\_\_ of Shri/Shrimati/Kumari \_\_\_\_\_ of Village/Town\* \_\_\_\_\_ in /District/Division\* \_\_\_\_\_ of the State/Union Territory\* \_\_\_\_\_ who belongs to the \_\_\_\_\_ Caste\*/Tribes which is recognised as a Scheduled Caste/Scheduled Tribe in the Station/Union Territory\* issued by the \_\_\_\_\_ dated \_\_\_\_\_.

3. Shri/Shrimati/Kumari\* and /or\* his/her family ordinarily reside(s) in Village/Town\* \_\_\_\_\_ District/Division of the State/Union Territory\* of \_\_\_\_\_.

Place \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Designation \_\_\_\_\_

(with seal of office)

State/Union Territory \_\_\_\_\_

\* Please delete the words, which are not applicable. @ Please quote specific Presidential Order.

% Delete the Paragraph, which is not applicable.

Note: (a) The term 'ordinarily reside'(s) used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.

The following Officers are authorised to issue caste certificates:

1. District Magistrate/Additional District Magistrate/Collector/Deputy Commissioner/Additional Deputy Commissioner/Deputy Collector/1<sup>st</sup> Class Stipendiary Magistrate/Sub Divisional Magistrate/Taluka Magistrate/Executive Magistrate/Extra Assistant Commissioner.
2. Chief Presidency Magistrate/Additional Chief Presidency magistrate/Presidency Magistrate.
3. Revenue Officer not below the rank of Tehsildar.
4. Sub-Divisional Officer of the area where the candidate and/or his family normally resides.
5. Certificates issued by Gazetted Officers of the Central or of a State Government countersigned by the District Magistrate concerned.
6. Administrator/Secretary to Administrator (Laccadive, Minicoy and Amindivi Islands).

**FORM-SC-ST**

**Form-II Disability Certificate**

**(In cases of amputation or complete permanent paralysis of limbs and  
in cases of blindness)**

**(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING  
THE CERTIFICATE)**

**(See rule 4)**

Recent Passport size  
attested Photograph  
(face only) of the  
person with  
disability

Certificate No. \_\_\_\_\_ Date: \_\_\_\_\_

This is to certify that I have carefully examined Shri/Smt./Kum.  
\_\_\_\_\_ son/wife/daughter of Shri \_\_\_\_\_ Date of Birth  
(DD/MM/YY) \_\_\_\_\_ Age \_\_\_\_\_ years \_\_\_\_\_, male/female \_\_\_\_\_

Registration No. \_\_\_\_\_ resident of House No. \_\_\_\_\_ Ward/Village/Street \_\_\_\_\_

Post Office \_\_\_\_\_ District \_\_\_\_\_ State \_\_\_\_\_, whose

photograph is affixed above, and am satisfied that:

1. he/she is a case of:

- a. locomotor disability
- b. blindness

(Please tick as applicable)

2. the diagnosis in his/her case is \_\_\_\_\_.

3. He/ She has\_% (in figure)\_\_\_\_\_percent (in words) permanent physical impairment/blindness in relation to his/her\_\_\_\_\_(part of body) as per guidelines (to be specified).
4. The applicant has submitted the following document as proof of residence:

Nature of Document	Date of Issue	Details of authority issuing certificate

(Signature and Seal of Authorised Signatory of notified Medical Authority)

Signature/Thumb impression of the person in whose favour a disability certificate is issued.

**FORM-PwD (II)**

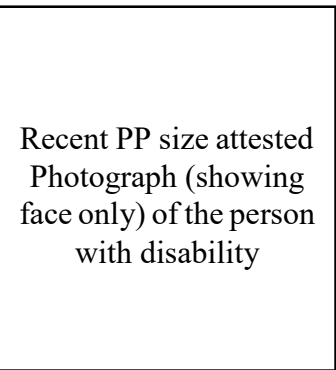
**FORM-PwD (III)**

**Form-III Disability Certificate**

**(In cases of multiple disabilities)**

**(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE  
CERTIFICATE)**

**(See rule 4)**



Certificate No. \_\_\_\_\_

Date: \_\_\_\_\_

This is to certify that I have carefully examined Shri/Smt./Kum \_\_\_\_\_  
son/wife/daughter of Shri \_\_\_\_\_ Date of Birth (DD/MM/YY) \_\_\_\_\_ Age \_\_\_\_\_  
years, male/female \_\_\_\_\_ Registration No. \_\_\_\_\_ permanent resident of House  
No. \_\_\_\_\_ Ward/Village/Street \_\_\_\_\_ Post Office \_\_\_\_\_ District  
\_\_\_\_\_ State \_\_\_\_\_, whose photograph is affixed above, and am satisfied that:

1. He/she is a Case of **Multiple Disability**. His/her extent of permanent physical impairment/  
disability has been evaluated as per guidelines (to be specified) for the disabilities ticked below,  
and shown against the relevant disability in the table further:

S. No.	Disability	Affected Part of Body	Diagnosis	Permanent physical impairment/mental disability (in %)
1	Locomotor disability	@		
2	Low vision	#		
3	Blindness	Both Eyes		
4	Hearing impairment	£		
5	Mental retardation	X		
6	Mental-illness	X		

**@ - e.g., Left/Right/both arms/legs# - e.g., Single eye/both eyes**

**£ - e.g., Left/Right/both ears**

2. In the light of the above, his/her overall permanent physical impairment as per guidelines (to be specified), is as follows:

In figures: \_\_\_\_\_ percent

In words: \_\_\_\_\_ percent

3. The above condition is progressive/ non-progressive/ likely to improve/ not likely to improve.
4. Reassessment of disability is:
- i. not necessary
- Or
- ii. is recommended/after \_\_\_\_\_ years \_\_\_\_\_ months, and therefore this certificate shall be valid till (DD/MM/YY)\_\_\_\_\_.
5. The applicant has submitted the following document as proof of residence:

Nature of Document	Date of Issue	Details of authority issuing certificate

6. Signature and seal of the Medical Authority:

Name and Seal of Member	Name of Seal of Member	Name and Seal of the Chairperson

--

Signature/Thumb impression of the person in whose favour a disability certificate is issued.

**FORM-PwD (III)**

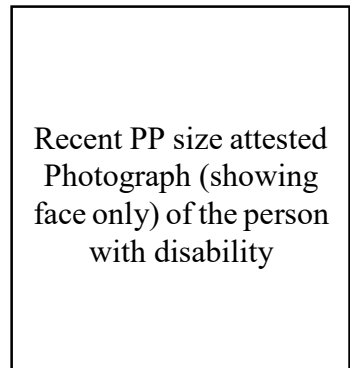


**FORM-PwD (IV)**

**Form-IV Disability Certificate**

**(In cases of other than those mentioned in Forms II and III)  
(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE  
CERTIFICATE)**

**(See rule 4)**



Certificate No. \_\_\_\_\_ Date: \_\_\_\_\_

This is to certify that I have carefully examined Shri/Smt./Kum  
\_\_\_\_\_ son/wife/daughter of Shri \_\_\_\_\_ Date  
of Birth (DD/MM/YY) \_\_\_\_\_ Age \_\_\_\_\_ years,

male/female \_\_\_\_\_ Registration No. \_\_\_\_\_ permanent  
resident of House No. \_\_\_\_\_

Ward/Village/Street \_\_\_\_\_ Post Office \_\_\_\_\_

District \_\_\_\_\_ State \_\_\_\_\_, whose photograph is affixed  
above, and satisfied that he/she is a case of disability.

1. His/her extent of percentage of physical impairment/disability has been evaluated as per guidelines (to be specified) and is shown against the relevant disability in the table below:

S.No.	Disability	Diagnosis	Permanent physical impairment/mental disability (in %)
-------	------------	-----------	--

1.	Locomotor disability		
2.	Visual Impairment (blindness / low vision)		
3.	Hearing impairment		
4.	Speech and language disability		
5.	Intellectual disability		
6.	Mental-illness		
7.	Disability caused due to chronic neurological conditions and / or blood disorders		

(Please strike out the disabilities which are not applicable.)

2. The above condition is progressive/ non-progressive/ likely to improve/ not likely to improve.
3. Reassessment of disability is:
  - a. not necessary Or
  - b. is recommended/after \_\_\_\_\_ years \_\_\_\_\_ months, and therefore this certificate shall be valid till (DD/MM/YY)\_\_\_\_\_.
4. The applicant has submitted the following document as proof of residence:

Nature of Document	Date of Issue	Details of authority issuing certificate

(Authorised Signatory of notified Medical Authority) (Name and Seal)

Countersigned

{Countersignature and seal of the CMO/Medical Superintendent/Head of Government Hospital, in case the certificate is issued by a medical authority who is not a government servant (with seal)}



Signature/Thumb impression of the person in whose favour a disability certificate is issued.

**Note:** In case this certificate is issued by a medical authority who is not a government servant, it shall be valid only if countersigned by the Chief Medical Officer of the District. Note: The principal rules were published in the Gazette.

**FORM-PwD (IV)**

**FORM-DYSLEXIC-1**

**FORMAT OF MEDICAL CERTIFICATE / REPORT TO BE PRODUCED BY  
DYSLEXIC CANDIDATE**

**{To be obtained from any Government or Government approved Learning  
Disability Clinic/Neurodevelopmental Centre/Dyslexia Association}**

Date: \_\_\_\_\_

**PSYCHO-EDUCATION EVALUATION REPORT**

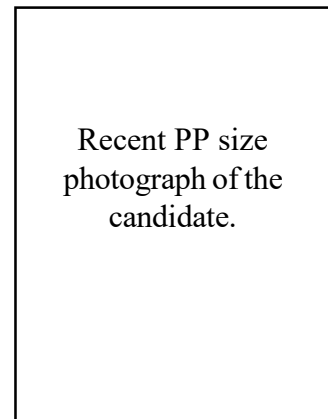
Name of the candidate:

Date of Birth:

Candidate Registration in the Clinic/Centre/Dyslexia Assn.  
(date /number):

Name of the Father/Mother/Guardian:

Name/address and Regn. No. :  
of the Dyslexia Association:



Physical & Neurologic [ ] Assessment:

Psychological  
Assessment: [ ] WISC Verbal IQ:  
Performance IQ:  
Full Scale IQ:

Interpretation: [ ]

Educational Assessment: [ ] Certified that:

1. The condition of handicap is: MILD / MODERATE / SEVERE (tick whichever is applicable)\*.
2. The disability is **PERMANENT** in nature and **DETAILED REPORTS OF DYSLEXIA ASSESSMENT ARE ATTACHED WITH THIS FORM (IN ORIGINAL).**

\*Learning Disability is a permanent developmental disorder. Currently there are no standard approved methods to quantify the disorder. However, the method of diagnosis is based on

significant impairment in academic achievement. To avail the benefit of relaxed norm under PwD category, the candidate must come under SEVERE category.

**Signature and Name (in CAPITAL LETTERS) of the certifying official:**

**Seal:**

**FORM-DYSLEXIC-1**

**\*CERTIFICATE TO BE PRODUCED BY DYSLEXIC CANDIDATE FROM  
THE PRINCIPAL OF THE SCHOOL/COLLEGE LAST ATTENDED**

**Testimonial**

Date: \_\_\_\_\_

Name of the candidate:

Date of Birth:

Name and Address of the School/College:

Recent PP size  
photograph of the  
candidate.

It is Certified that Shri/Smt/Kum \_\_\_\_\_ son/daughter of  
\_\_\_\_\_ of \_\_\_\_\_ village/town

passed his/her Class XII from this school and as per records, availed concession under dyslexic category.

Signature with seal:

---

*\* A candidate passing Class XII or equivalent through open school system or in private mode may submit the certificate to this effect from the competent authority in the board certifying the concessions availed under dyslexia.*

**FORM - DISABILITY AND HAVING DIFFICULTY IN WRITING**

**CERTIFICATE FOR PERSON WITH SPECIFIED DISABILITY COVERED UNDER THE DEFINITION OF SECTION 2 (S) OF THE RPWD ACT, 2016 BUT NOT COVERED UNDER THE DEFINITION OF SECTION 2(R) OF THE SAID ACT, i.e. PERSONS HAVING LESS THAN 40% DISABILITY AND HAVING DIFFICULTY IN WRITING**

1. This is to certify that, we have examined Mr/Ms/Mrs. \_\_\_\_\_ (name of the candidate), S/o /D/o \_\_\_\_\_, a resident of \_\_\_\_\_ (Vill/PO/PS/District/State), aged \_\_\_\_\_ yrs, a person with \_\_\_\_\_ (nature of disability/condition), and to state that he/she has limitation which hampers his/her writing capability owing to his/her above condition. He/she requires the support of scribe for writing the examination.
2. The above candidate uses aids and assistive devices such as prosthetics & orthotics, hearing aid (name to be specified) which is/are essential for the candidate to appear at the examination with the assistance of scribe.
3. This certificate is issued only for the purpose of appearing in written examinations conducted by recruitment agencies as well as academic institutions and is valid up to \_\_\_\_\_ (it is valid for a maximum period of six months or less as may be certified by the medical authority).

Signature of medical authority

(Signature & Name)	(Signature & Name)	(Signature & Name)	(Signature & Name)	(Signature & Name)
Orthopedic/ PMR specialist	Clinical Psychologist / Rehabilitation Psychologist / Psychiatrist / Special Educator	Neurologist (if available)	Occupational Therapist (if available)	Other Expert, as nominated by the Chairperson (if any)
(Signature & Name)				
Chief Medical Officer / Civil Surgeon / Chief District Medical Officer ..... Chair person				

Place:

Name of Government Hospital / Health care Centre with Seal and Date:

**FORM - DISABILITY AND HAVING DIFFICULTY IN WRITING**

**CERTIFICATE FOR AVAILING ADMISSION AGAINST KASHMIRI  
MIGRANT QUOTA**

**Photograph of the Applicant duly attested by the officer who has certified this certificate.**

It is certified that Shri /Kum/Smt. \_\_\_\_\_  
son/daughter/wife of Shri \_\_\_\_\_ resident of  
\_\_\_\_\_ is registered as migrant from Jammu &  
Kashmir.  
The registration number is \_\_\_\_\_  
dated \_\_\_\_\_.

It is also certify that Shri/Kum/Smt. \_\_\_\_\_ is registered as J&K Migrant on  
\_\_\_\_\_.

Place:

Name and signature of Deputy  
commissioner/competent authority  
(Office Stamp)

Date:

**Note:** No other document shall be accepted by the seven IISERs for claiming reservation against the Kashmiri Migrant Seat.



INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH

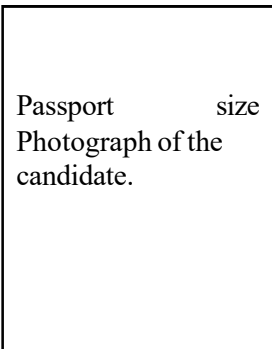


Admission to BS Degree / BS-MS (Dual Degree) Program 2024

**DECLARATION BY THE CANDIDATE IN LIEU OF GEN-EWS CERTIFICATE**

Name of the candidate: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_.



Application Number for IAT 2024:



Mobile No: \_\_\_\_\_ Email: \_\_\_\_\_

I understand that as per the new guidelines from the Ministry of Personnel, Public Grievances and Pensions, GoI, I am required to submit a GEN-EWS certificate issued on or after **1 April 2024**.

Since I have not been able to collect the said certificate on time, I may kindly be allowed to write **IAT- 2024** provisionally. I hereby declare that I will upload a fresh certificate (issued on or after **1 April 2024**) on or before July 2, 2024, as notified on the ([www.iiseradmission.in](http://www.iiseradmission.in)) website.

I understand that if I do not upload the same by the given date and time I will not be considered for admission under this category. I also understand that, if qualified, my category will be adjusted accordingly in the Common Rank List.

**Signature of Father/Mother**

Name:

Date:

**Signature of Applicant**

Date:

# INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH



Admission to BS Degree / BS-MS (Dual Degree) Program 2024

## DECLARATION BY THE CANDIDATE IN LIEU OF OBC-NCL CERTIFICATE

Name of the candidate: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_.

Passport size  
Photograph of the  
candidate.

Application Number for IAT 2024:

Mobile No: \_\_\_\_\_ Email: \_\_\_\_\_

I understand that as per the new guidelines from the Ministry of Personnel, Public Grievances and Pensions, GoI, I am required to submit an OBC-NCL certificate issued on or after **1 April 2024**. Since I have not been able to collect the said certificate on time, I may kindly be allowed to write **IAT- 2024** provisionally. I hereby declare that I will upload a fresh certificate (issued on or after **1 April 2024**) on or before July 2, 2024, as notified on the ([www.iiseradmission.in](http://www.iiseradmission.in)) website.

I understand that if I do not upload the same by the given date and time I will not be considered for admission under this category. I also understand that, if qualified, my category will be adjusted accordingly in the Common Rank List.

**Signature of Father/Mother**

Name:

Date:

**Signature of Applicant**

Date:

## INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH



Admission to BS Degree / BS-MS Dual Degree Program 2024

### DECLARATION BY THE CANDIDATE IN LIEU OF ELIGIBILITY EXAMINATION CERTIFICATE/MARKS SHEET

**Please tick appropriate boxes**

1	Application Number:	<b>Paste your recent Passport size Photograph here.</b>
2	Category (GE, OBC-NCL, SC, ST, EWS, KM)	
3	PwD (YES, NO)	
4	Applicant's Name:	
5	Parent's/Guardian's Name:	
<p>I understand that I am required to submit the certificate/marks sheet of 12th standard or equivalent examination.</p> <p>Since I have not been able to collect the said certificate/marks sheet on time, I may kindly be allowed to write <b>IAT- 2024</b> provisionally. I hereby declare that I will upload the certificate/marks sheet on or before July 2, 2024, as notified on the (<a href="http://www.iiseradmission.in">www.iiseradmission.in</a>) website.</p> <p>I understand that if I do not upload the same by the given date and time, I will not be considered for allocation to any of the IISERs and I will not be allotted a seat in any of the IISERs.</p>		
Signature of the Candidate Place: Date:		Signature of the Parent/ Guardian

# INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH



Admission to BS Degree / BS-MS Dual Degree Program 2024

## Medical Examination Report (To be issued by a Registered Medical Practitioner)

1.	Application Number:	Paste your recent passport-size photograph here
2.	Category (GE, OBC-NCL, SC, ST, EWS, KM):	
3.	PwD (Yes / No):	
4.	Name of the Candidate:	
5.	Date of Birth:	
6.	Gender:	
7.	Identification Mark:	
8.	Major Illness, if any:	
<b>Medical Certificate</b> (To be filled by the Medical Officer Conducting the Test)		
1.	Height:	
2.	Weight:	
3.	Past History	Mental Diseases:  Epileptic fits:
4.	Chest	Inspiration:  Expiration:
5.	Blood Group:	

6.	Hearing:	
7.	Vision (with or without glasses)	Right Eye:
		Left Eye:
		Color Blindness:
8.	Respiratory System:	
9.	Nervous System:	
10.	Heart	Sounds:
		Murmur:
	Abdomen:	Liver:
		Spleen:
	Hernia:	
	Hydrocele:	
	Any other defects:	
<p>Certified that .....</p> <p>Son / Daughter of .....</p> <p>(a) Fulfills the prescribed standard of physical fitness and is FIT for admission to 5 Year BS-MSor 4 Year BS Degree Program 2024.</p> <p>(b) Does not fulfill the prescribed standard of physical fitness and is unfit/temporarily unfit for admission due to following defects</p>		

<p>Signature of the Medical Officer (Minimum Qualification MBBS / MD)</p> <p>Full Name:</p> <p>Medical Registration Number:</p> <p>Address:</p>  <p>Official Stamp Date:</p>	<p>Signature of the Candidate</p>
--	-----------------------------------

- **QUERIES AND GRIEVANCES**

If the candidate has any query with regards to admission, then they can contact the Joint Admissions Committee (JAC) 2024, Indian Institute of Science Education and Research Bhopal, Bhopal Bypass Road, Bhauri, Bhopal 462 066, Madhya Pradesh

**Email:** [askjac2024@iiserb.ac.in](mailto:askjac2024@iiserb.ac.in)