ANNEXURE REFERRED TO IN REPLY OF PARTS (a) to (c) OF THE LOK SABHA UNSTARRED QUESTION NO.3227 FOR 12.08.2024 ASKED BY SHRI BIDYUT BARAN MAHATO AND SHRI DULU MAHATO, HON'BLE MEMBERS OF PARLIAMENT REGARDING STEM EDUCATION

A. DEPARTMENT OF SCIENCE AND TECHNOLOGY (DST), M/O SCIENCE AND TECHNOLOGY

- 1. Women in Science and Engineering- KIRAN (WISE-KIRAN): The Department of Science and Technology (DST) offers fellowships to promote research among women through programs under WISE-KIRAN. The various programs under WISE-KIRAN are:
 - a. WISE Fellowship for Ph.D (WISE-PhD): WISE-PhD aims to provide support to women to pursue Ph.D in basic and applied sciences.
 - b. WISE Post-Doctoral Fellowship (WISE-PDF): WISE-PDF aims to provide opportunity to women to continue research after Ph.D in Basic and Applied Sciences.
 - c. WISE- Societal Challenges and Opportunities (WISE-SCOPE): WISE-SCOPE encourages women scientists and technologists to pursue post-Doctoral research to address the societal challenges.
 - d. Women's Instinct for Developing and Ushering in Scientific Heights & Innovations (WIDUSHI): WIDUSHI programme aims to encourage and support senior women scientists to conduct research in interdisciplinary areas of Science and Technology.
- 2. Scholarship for Higher Education (SHE) component of Innovation in Science Pursuit for Inspired Research (INSPIRE): This scheme aims to enhance the rate of attachment of talented youth to undertake higher education in science intensive programs by providing scholarships and mentorship support.
 - 12000 scholarships are offered every year for undertaking Bachelor and Master level Education in natural science.
 - Rate of Scholarship: Rs. 80,000 per year for 5 years duration
 - The scholarship scheme is open for all.
 - In the last 5 years, 48.79% awardees were Female.
- 3. SERB- Promoting Opportunities for Women in Exploratory Research (SERB-POWER) Fellowship: This scheme was launched in 2020 to identify and reward outstanding women researchers and innovators working in various Science & Technology program in Indian academic institutions and R&D laboratories.
 - Nature of support: Fellowship of Rs. 15000 per month in addition to regular income, Research grant of Rs. 10 lakhs per annum and Overheads for the host institute
 - Fellowship Duration: 3 years
 - So far 80 fellowships have been sanctioned

B. DEPARTMENT OF BIOTECHNOLOGY (DBT), M/O SCIENCE AND TECHNOLOGY

- 1. DBT Biotechnology Career Advancement and Re-orientation (BioCARe) Fellowship Programme: This scheme aims to enhance participation of female scientists in India towards research in Biotechnology and allied area. Key features are:
 - Fellowship of Rs. 75,000 per month for applicants who have completed Ph.D, and Rs. 58,000 per month for applicants who have completed M.Tech./ M. Pharma and equivalent degree
 - Project Duration: 3 years
 - At present, total of 59 female researchers are being supported
- 2. MK Bhan-Young Researcher Fellowship Programme: This scheme was launched in 2020-21 with an aim to encourage young bright researchers to continue their research at DBT autonomous institutes after PhD. Key features are:
 - Fellowship of Rs. 75000 per month; Research/ Contingency grant of Rs. 20 lakh per year, and financial support of Rs. 10 lakh during whole tenure for procurement of Capital Equipment
 - Upto 50 fellowships every year for maximum period of 3 years.
 - The fellowship is open for all researchers across India including women. Currently 17 male and 21 female young researchers are receiving fellowship under this programme.
- **3. DBT Ramalingaswami Re-Entry Fellowship Program**: The scheme is for Indian Nationals who are working overseas in various fields of Biotechnology and life sciences and are interested in taking up scientific research positions in India.
 - Nature of support: Fellowship of Rs. 1 lakh per month + HRA of Rs. 18,500 (if applicable) per month; Research grant of Rs. 13 lakh per year, and Institutional overheads of Rs. 50000 per annum to the host Institute
 - Up to 75 fellowships every year for a period of 3 years.
 - The fellowship is open for all researchers across India including women. At present, a total of 50 female researchers are receiving fellowship under this programme.
- 4. **Post-Graduate Teaching Program:** This program supports the students and their host institution to pursue post-graduation in the discipline of biotechnology and allied area.
 - Candidates are shortlisted through computer-based test called GAT-B Exam.
 - In the current FY, total 771 female students out of 1304 are receiving M.Sc. fellowship under this programme.
- **5. DBT Junior Research Fellowship Program:** Since 2004, the Department is implementing this programme to facilitate fellowships for pursuing research in biotechnology and life-sciences.
 - Candidates are shortlisted through computer-based test called Biotechnology Eligibility Test (BET).
 - In 2024-25, 701 females are receiving fellowship out of total 1233 fellows.

- 6. **DBT Research Associateship Program**: Since 2004, the program has laid the foundation for building a robust postdoctoral base and an ecosystem for the growth of Biotechnology sector in the country.
 - Fellowship Duration: 2 years (extendable upto 4 years)
 - In 2024-25, 112 females are receiving fellowship out of total 167 ongoing fellows.

C. COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH (CSIR), M/O SCIENCE AND TECHNOLOGY

- 1. Capacity Building and S&T Human Resource Development Doctoral and Postdoctoral Fellowship Programme: The CSIR provides age relaxation of five years to women candidates in upper age limit for award of Fellowships/Associateships to pursue doctoral and postdoctoral research in science with the aim to encourage women candidates to opt science and technology as career.
 - At present, CSIR has been supporting 7645 doctorate and post-doctorate researchers. The women research scholars constitute about 46.5% of the 7645 total researchers supported by CSIR.

D. ALL INDIA COUNCIL FOR TECHNICAL EDUCATION (AICTE)

- **1. AICTE PRAGATI Scholarship Scheme**: Central Sector Scheme implemented from 2014-15, to encourage meritorious girl students to pursue higher education.
 - Family income not more than Rs. 8 Lakh per annum
 - Total number of scholarships are 10,000 (5000 for Diploma and 5000 for Degree) per annum from 23 States/ UT's and all eligible girl students from remaining 13 States/UTs (including North Eastern Region, J&K etc.)
 - Rs. 50,000 per annum is awarded under the scheme
 - In 2023-24, 25234 female students have availed the benefits.
- 2. AICTE SAKHSAM Scholarship Scheme: Central Sector Scheme implemented from 2014-15, to provide encouragement and support to specially-abled students having disability of not less than 40% to pursue technical education.
 - Family income not more than Rs. 8 Lakh per annum
 - Rs. 50,000 per annum is awarded under the scheme
 - In 2023-24, out of total 902 beneficiaries, 311 females have availed the benefits.
- **3. AICTE SWANATH Scholarship Scheme:** Central Sector Scheme implemented from 2021-22, to provide encouragement and support to orphans, wards of parents died due to Covid-19, wards of Armed Forces and Central Paramilitary Forces martyred in action to pursue education.
 - Family income not more than Rs. 8 lakh per annum.

- Total number of scholarships are 2000 scholarships 1000 for Degree students and 1000 for Diploma Students per year
- Rs. 50,000 per annum is awarded under the scheme
- In 2023-24, out of total 570 beneficiaries, 171 females have availed the benefits.
- **4. AICTE Post Graduate Scholarship Scheme:** Students who have qualified GATE/GPAT/CEED examination and admitted in M.E./ M.Tech/ M.Arch./ M.Design/ M.Pharma course in AICTE approved institutions are eligible to apply.
 - Rs. 12,400 per month awarded to students for a period of 2 years
 - In 2023-24, out of total 13585 beneficiaries, 4271 females have availed the benefits.
- **5. AICTE Doctoral Fellowship (ADF):** Central Sector Scheme implemented from 2018- 19, to nurture a strong culture of research and knowledge by developing a robust ecosystem in AICTE approved institutions
 - Duration of Project: 5 years
 - Nature of Support: fellowship of Rs. 37,000 per month (JRF) and Rs. 42,000 per month (SRF); house rent allowance (HRA) as per central government norms; and contingency grant of Rs. 15,000 per annum.
 - In 2023-24, out of total 514 beneficiaries, 213 females have availed the benefits
- 6. AICTE Post-Doctoral Fellowship (PDF): To encourage 200 Indian Engineering, Management, Design, Hotel Management & Catering Technology, Applied Sciences, Planning, Computer application, Applied Arts Crafts & Design, Inter Disciplinary Area scholars who have completed their Ph.D and wish to pursue a regular career in research and development
 - Nature of Support: fellowship of Rs. 65000 per month; house rent allowance (HRA) as per central government norms; and contingency grant of Rs.50,000 per annum.

E. UNIVERSITY GRANTS COMMISSION (UGC)

- 1. National Scholarship for Post Graduate Studies: Scholarship is provided to students pursuing Post Graduate Programs. In this scheme, 50% slots are earmarked for Science (STEM) subjects, and 30% slots are earmarked for women.
 - Rs. 12,400 per month awarded to students for a period of 2 years
 - Scholarship Slots: 10,000
- 2. UGC NET-Junior Research Fellowship and Savitribai Jyoti Rao Phule Single Girl Child Fellowship: The fellowships are provided to pursue Ph.D. in all disciplines including STEM education. Out of total 11,775 scholars in STEM subjects; 6,591 are women which is more than 55% of the total fellows.

F. In addition, the Government is implementing different scholarships schemes to promote Indian students including women pursuing science education and research. The details of these schemes including the criteria laid down for scholarship are available in the following websites:

Sl.No.	Ministry/ Department	Website links
1.	Ministry of Social Justice & Empowerment	The details are available at <u>https://socialjustice.gov.in/scheme-cat</u>
2.	Ministry of Tribal Affairs	The details are available at <u>https://tribal.nic.in/Scholarship.aspx</u>
3.	Department of Higher Education	The details are available at <u>https://www.education.gov.in/scholarships-education-loan-0</u>
4.	University Grants Commission	The details are available at https://www.ugc.gov.in/Home/student_Corner
5.	All India Council for Technical Education	The details are available at <u>https://www.aicte-india.org/bureau/rifd/Scholarship-Schemes</u>
6.	Ministry of Minority Affairs	The details are available at https://www.minorityaffairs.gov.in/show_content.php? lang=1&level=2&ls id=661&lid=823
7.	Department of Science and Technology	The details are available at <u>https://dst.gov.in/inspire-scheme-innovation-science-</u> <u>pursuit-inspired-research</u>
