7.2.1 Describe at least two institutional best practices (as per NAAC Format)

BEST PRACTICE - I

Title: SCIENTIFIC STUDY OF CONSCIOUSNESS

Objectives of the Practice
- To be a global leader in the Science of Consciousness
- To evolve a science of inner experience (which is repeatable and verifiable) by attempting to integrate Eastern and Western scientific approaches and philosophy by verifying inner spiritual phenomenology of consciousness through well-established scientific epistemology

Context
Consciousness is the final frontier of science. Since time immemorial, man has been intrigued by his own self, his awareness and his existence in the universe. These fundamental questions have provided the impetus for mankind to probe nature and acquire knowledge and understanding in a search for conclusive answers. Although there are different perspectives, these issues have acquired great significance in the 21st century because of significant scientific and technological advances in quantum physics, information processing, artificial intelligence, nano and biotechnology, advanced neuro-imaging techniques such as fMRIand PET and optogenetics, for examining and understanding neurological processes with unprecedented spatial and temporal resolution. During the past quarter century there has been an explosive multidisciplinary interest in studying consciousness from the perspectives of neuroscience, psychology, philosophy, cognitive science, artificial intelligence, molecular biology, medicine, quantum physics, and cosmology as well as neuro-aesthetics, neurotheology and experiential and contemplative approaches.

The Centre for Consciousness Studies was established at DEI in 2011 to facilitate multidisciplinary research activities in this extremely challenging area. The Dayalbagh community around DEI, provides a unique opportunity for research at the interface of scientific and experiential approaches to Consciousness. The research activities at the Centre have made an impact and received international recognition. The Centre organizes research colloquia department-wise to facilitate collaborative research and organized the 20th International Conference on The Science of Consciousness (TSC) in 2013 at DEI.

The Practice
- DEI has introduced, PG Diploma in Theology, M.A., M.Phil. and PhD Theology programmes in the Sanskrit Department
- The Centre organizes research colloquia department-wise to facilitate collaborative research and organized the 20th International Conference on The Science of Consciousness (TSC) in 2013 at DEI.

- The Annual Integrated East-West Forum at TSC has been organised as an International event from 2012 to 2019
- A new International Dayalbagh Science of Consciousness Conference (DSC) series is being launched this year to provide leadership in Consciousness studies with its own unique perspective. The first DSC Conference is being organized by DEI at the University of Waterloo, Canada in Sep. 2019
- Integrating the use of neuro-scientific methods with the methods of Experiential Sciences in exploring Consciousness
- Pioneering studies on various aspects of Consciousness, carried out in DEI include the following:
  - Quantum Teleportation Experiments in Consciousness with 15 & 2 channel SQUIDS
  - Psychometric Study of Consciousness
  - Spiritual-Psycho-Physical Quantum System Model of Consciousness
  - Spiritual System Theory Framework, etc.

The Future Plan

To be a global leader in Consciousness Studies, DEI will take the following initiatives:

- To establish new multidisciplinary programs in Theology, Cognitive science, Neuroscience, AYUSH, etc., offered jointly by different departments,
- To undertake, theoretical and experimental research in emerging niche areas of expertise, that include Neuro-aesthetics, Neuro-Linguistics , Neuro Theology, Graph Theoretic Topological Quantum Computing, Psycho-Physics, Yoga and Meditation, Neuro-phenomenology, Cognitive Neuroscience, Internet of Everything and AI Super-Intelligent machines with safety net.
- To promote integration of knowledge through multidisciplinary programs.
- To emphasis spiritual education, the highest form of education, to achieve the mission objective of evolving super conscious and super-intelligent human beings.

BEST PRACTICE – II

Title: SOCIO-ECONOMIC DEVELOPMENT through SIGMA SIX Q-Vs APPROACH

Objectives

Societal Contribution is the distinguishing thread running through the fabric of the educational framework of DEI. Its overall Vision can be depicted thus:

It hastaken up following domains
based on our Sigma Six Q-V approach to empower the adopted communities:

1) Economic Independence through Skilling to Entrepreneurship;

2) Holistic Health - Physical Mental and Spiritual;

3) Environmental Conservation;

4) An Inclusive & Egalitarian Society characterized by the Highest Quality of life

5) Women's Empowerment;

6) Value-Based Quality Education for All;

7) Reaching the Lowest, the Least, the Last and the Lost

8) Evolution from '*Homo Sapiens*' to a community of '*Homo Spiritualis*' - a Super-Conscious and Super-Connected society.

The Context

India is a developing country comprising a staggering diversity of cultures and communities. India has the world's largest tribal population and it is also the most economically underprivileged. Education is the most powerful means off bringing about socio-economic development among scheduled tribes that cannot be overemphasized.

The Practice

To ensure a sustainable model of societal development the DEI follows the Six Sigma Q-V Approach, which has been framed by the Most Revered Chairman, Advisory Committee on Education, DEI, Prof. P. S. Satsangi. In his words:

"Q stands for Quality. Quality is of six kinds which we want to develop in Dayalbagh. V stands for Values. Sigma means that all these aspects or components have interaction amongst themselves and the cumulative effect of all these is many times more than their individual effect."

DEI has impressively impacted the tribal communities by enriching their social, economic and moral spiritual capital. Some salient areas include:

INNOVATION
- Skilling to Entrepreneurship
- Self Help Groups (SHGs) with focus on women empowerment
    - ATMA (Apparel and Toy Making Association)
    - ADyNam (Agricultural and Diary Nano Processing of Multi- Products)
    - AAM (Automotive And Multi-skilling Garage)

Under this, Vocational Training Certificate Courses such as Motor Vehicle Mechanic (now running at Dayalbagh (UP), MTV Puram (TN), Ludhiana (Punjab), Timarni (MP)); Modern Office Management and Secretarial Practice (running at Delhi); and Textile Designing and Printing (running at Delhi).

- Partnering with Govt.
- DDU Kaushal Vikas Kendra (Vocational Degree Programmes)

- UPSDM
- Other MHRD Schemes

- Start-Up Incubators-REZtoSEZ
  - CORE/COuRE
  - IiCOuRE
  - Business Advisory Clinic
  - Product Exhibitions
  - Job Fairs

- Renewable Energy
  - Solar
  - Wind Energy
  - Bio-Gas, Induction

- ICT Initiatives
  - Networking
  - Surveillance
  - Partnering with Industry for Outreach in Renewable Energy, ICT and other areas
  - Jugaad (Frugal) Innovations(Energy, Water, Agriculture, Textiles and Handicrafts, Social Equity)

AIR QUALITY
- Regular testing of air quality by Chemistry Dept.
- Low Carbon Footprint
- Electric/Solar vehicles
- Minimal use of Air conditioning
- Restrictions on Automobiles
- Low Radiation environment
- Green Energy- solar powered habitats
- Green surroundings -Tree plantation Drives, green open spaces
- Pedestrian friendly roads

WATER QUALITY AND MANAGEMENT
- STP set up
- Grey (kitchen)water treatment
- Use of non-toxic cleaning agents
- Regular Testingof drinking water
- Detoxification of Water
- Rain water harvesting, Water bodies
- Ground Water Recharging

SUSTAINABLE HEALTH INITIATIVES

Life Style Changes:

- Clean and Sanitary living conditions (Toilets, drainage, waste disposal and recycling)
- Healthy consumption habits ((in food and other lifestyle comforts/luxuries e.g. air-conditioning, vehicles)
- Yoga and Meditation Centres
- Preventive Measures
- Public Health Measures preventives for epidemics, etc.
- Air & Water Quality monitoring
- Organic farming and Dairying
- Nutritional Supplements for growing children
- (Mid-Day Meals)

Therapeutic Measures

- Access to Hospitals and Healthcare Centres with AYUSH facilities
- Mobile Dispensaries
- Tele-Medicine
- Multi-Speciality Medical Camps
- Neuro-Psycho-Cognitive Counselling

AFFORDABLE QUALITY EDUCATION FOR THE MASSES

- Low Fee-Structure
- Need Blind Admissions
- ICT-based Initiatives for Empowering Masses
- Online Teaching for Remote & Under-resourced Schools
- MOOCSKENE Bharat: Online Skillpedia
- Affordable Open & Distance Learning System
- Open e-content generation - Vidyaprasar
- Virtual Labs
- Hole in the Wall-Computer Literacy
- ICT empowerment of rural population at Harisal, Maharashtra
- Support for Weaker Sections
- Internships in Remote schools
- Initiatives for girls & weaker sections
- Adult Literacy and Life Long Learning
- Non-formal Elementary education centre
- Scholarships: merit-cum-means
- Earning while Learning Opportunities
- Entrepreneurial Support
- Free coaching for competitive exams
- Vocational/Skill Development Courses
- Pre-NSQF & NSQF Levels

- Enriching Quality
- Revitalizing Science Education - Si-Hi; Frugal science experiments,etc
- Yoga; Personality Development Workshops
- Research in Areas of Societal Concern:
- Renewable Energy, Educational Technology , ICT, Entrepreneurship, Agriculture, Air & Water Quality, Value Development, etc.

AGRICULTURE
- Precision Agriculture for More Crop per Drop
- Organic Cultivation
- Composting
- Bio-Diversity parks
- Forest Conservation
- Cooperative Milk Collection Centres
- Livestock Farming: Special Rearing practices
- Agri-Advisory Clinic
- Scientific processing of Milk products
- International Standardization and export of Milk Products

VALUES
- Gender Equality
- Brotherhood of Man
- Economic Equity and Self sufficiency
- Social Equality
- Peace
- Justice
- Spirit of Service (with love & humility)
- Social Sensitivity and commitment
- Free & Reflective Thinking
- Transcendental/Systemic perspective
- Positive Tolerance towards Diversity

For coordination at a higher level, DEI has identified various nodal agencies that are eager to function as coordinators and work with it to help operate the programme through local educational institutions, units and other larger industrial establishments. DEI has directly linked up with these registered bodies to act as our regional linkage points.

Evidence of Success
A Case Study : Educating, Skilling & Empowering Rajaborari - A Remote Tribal Cluster in Madhya Pradesh

EDUCATION
- Installation of EDUSAT network and initiation of B. Com. classes.
- Free bicycles to girl students to commute to schools from far away hamlets.
- Regular health check-ups
- Free mid-day meals to the students
- Yoga camps and regular sports

VOCATION & ENTREPRENEURSHIP

Three Karkhanas established for tribals to start their own micro scale business:
- ATMA (Apparel and Toy Manufacturing Association) focusing on training women
- ADyNam(Agro and Dairy Nano processing of Multi-products) Foods: Requisite infrastructure for processing the agri and dairy raw produce with a food testing laboratory
- AAM (Automotive And Multi-skill) Karkhana: To train youth in repair and maintenance of farm equipment, two wheelers, pumps, solar lanterns etc.
- e-HEALTH:
- Established a primary healthcare centre with a free dispensary, qualified doctors and medical consultancy and diagnosis facility through ICT.
- Tele- medicine facilities at regular intervals
- Regular Medical and multi skill camps for neighbouring villages at Agra(weekly) and at ICT centres (Bi-monthly)

CONNECTIVITY
- Mobile connectivity with BSNL partnership.
- Two BTS with three sectors each deployed at Rajaborari and Gulerdhana, maintained by local youth.
- Networked all High Schools and 4 Primary Schools, sustained through solar power

DISTRIBUTED 5KW Solar Power Plant
- For primary and secondary schools
- Hospital and Dispensary
- Water pumps
- Electrical power to Timarni-Rajaborari 40 km WiFi link

Problems Encountered and Resources Required
- Additional resources are required in terms of land, building, manpower and other related infrastructure, with the growth in the number of initiatives, and the stakeholders,
- The success of the model and practice in DEI needs to be replicated in other parts of the country and abroad. This can be achieved with active support of the relevant regulating agencies, by providing flexible policies, mechanisms and resources.

BEST PRACTICE - III

Title: EXCELLENCE THROUGH VALUE-BASED EDUCATION AND TOTAL QUALITY MANAGEMENT (TQM)

Objectives of the Practice

- To develop the physical, intellectual and spiritual dimensions of students.
- To develop social sensibilities for contribution to national development.
- To effectively apply the principles of total quality management in higher education.

Context

Today, we find ourselves in a fragmented material world degenerating in both resources and spirit. We face the threat of self-extinction by nuclear warfare, environmental pollution, depleting bio-diversity, terrorism, but more importantly, corruption of the self and society.

The quality of HEIs and the low employability of graduates in India is also alarming. Thus, it is imperative that higher education is also based on TQM, with a focus on values and social transformation.

The Practice

The DEI Education System has been designed to evolve a complete person, by focusing on not only the intellectual development, but also physical and spiritual development of students along with fostering social sensibilities and vocational skills. This is implemented through a comprehensive framework for inclusive, experiential and holistic education. Its exemplary features include:

Value–Based Compulsory Core Courses in all UG Programmes, viz:

1. Cultural Education
2. Scientific Methodology, General Knowledge and Current affairs
3. Rural Development
4. Agricultural Operations
5. Social Service
6. Comparative Study of Religion
7. Co-curricular Activities
8. Environment Studies
9. Disaster Management
10. Compulsory Work-Based Training in UG Programmes

TQM Framework

DEI has put in place Total Quality Management based on the following four cardinal objectives :

1. Innovation
2. Creativity
3. Initiative
4. Excellence

Standards, accountability and monitoring at all levels are ensured in this setup.

The three main committees that oversee and ensure TQM at DEI are (i) **IQAC** (ii) **Academic and Administrative Audit Committee (AAAC)** and (iii) **Advisory Committee on Education (ACE)** comprising distinguished intellectuals from academia and industry and

faculty of DEI which meets every two months to review the progress and make valuable recommendations.

Recent Feedback Mechanism on Daily Basis: Daily Home and Class Assignments (DHA/CAs)

Recent research in cognitive science and psychology shows that the frequent process of recalling information fosters deep learning. [A.M. Paul, Scientific American, August 1, 2015].

Inspired by these studies, DEI has initiated short DHAs or CAs in all courses on topics covered in each class to improve the quality of teaching-learning experience. Is effectiveness has also been empirically validated by in-house studies.

Other important factors that contribute to the practice are the following:

- Disciplined, Eco-friendly and Serene Atmosphere
- Dedicated Faculty
- Weightage of Attendance, Discipline, Co-curricular Activities, Sports and Social Service
- Simple Student Dress Code
- Morning Assembly
- Variety of Community Outreach Activities for under-privileged
- Daily Agricultural Operations to instill Dignity of Labor
- Research emphasis on Environment, Ecology, Nature-Inspired Engineering and Consciousness Studies

Evidence of Success

Evidence of the tremendous success of DEI's value-based and quality education is through the following:

1. Recognition as the USP of Education at DEI by Statutory Regulatory Authorities

2. Positive feedback on this aspect from all stakeholders

3. Improvement in teaching-learning experience

4. Higher number of women enrolments

5. Higher number of women staff

6. Award of ISO 9001:2015 certification

Problems Encountered and Resources Required

1. Improving the awareness and quality of students from under-privileged sections through remedial classes.

2. To provide quality teaching without increasing the fee structure to benefit the underprivileged

sections.

Institutional Distinctiveness

Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust

Higher education has special value in the emerging knowledge society. It contributes directly as well as indirectly to the wealth of a nation.

The Dayalbagh Educational Policy, formulated in 1975, and implemented in DEI since 1981 **provides a comprehensive solution**.

- It anticipated and implemented several features which later found consensus in the National Education Policy, 1986, and has been widely appreciated
- Duly propelled by the twin objectives of Value Education and Total Quality in a
- double-helical pattern, with the former objective serving as the prime mover for the latter
- objective, so as to facilitate emergence of DEI as an exemplary institution of learning and
- work-experience.
- The Policy leads to as many as 93 elements spread over Aims and Objects (30), Educational System (33) and Organization (30). An Interpretive Structural Model (ISM) of the policy with its roots in the systems philosophy, has been shown in the attached document.
- The mission objective of the Institute is to evolve a well-rounded complete person and this is supported by academic values, moral and spiritual values and social sensibilities.
- The Policy makes broad coverage at the undergraduate level as per the following:

(i) Awareness of **democratic processes** and Indian constitution is provided through courses on humanities, social sciences, management and entrepreneurship.

(ii) The Institute **core courses** include full credit courses on Indian Culture, Comparative Study of Religion, General Knowledge, Scientific Methodology and Current Affairs and Work Experience Courses, Industrial Training which provide exposure to agricultural fields, factories and commercial establishments and add to the practice of the concerned major academic subject.

(iii) **Co-curricular activities** consist of **Social Services** activities, games and sports, and cultural and literary activities.

(iv) There is **continuous evaluation system**, semester system, grading system and **Credit based Choice system.**

The courses listed under broad coverage above are credited by all UG students of DEI.

DEI's value-based experiential education learning environment stretches from the classroom to sports and agricultural fields, and co-op. industrial experience. Several new Initiatives have been taken by DEI to encompass all forms of education, to benefit all sections of society. It has acquired a multi-dimensional form by successfully undertaking the following pioneering initiatives:

- Provide all levels of education, from pre-school to the highest spiritual education, by
- Integrating different forms of education, namely, school, skilling, vocational continuing, technical and university education.
- Provide all modes of education to all sections of the society, i.e., conventional, open and distance, online and entrepreneurial education, especially weaker sections and underprivileged, with a zero-drop policy.
- Providing flexible multiple-input multiple-exit education system with provision for
- lateral and vertical progression, connecting modular, certificate, diploma, advanced

Diploma and Degree programmes.
- Reaching all sections of society, i.e., tribals in remote areas, underprivileged and
- weaker sections, rural and urban masses and international communities
- According strong emphasis on women empowerment through education and
- entrepreneurship
- Strengthen the innovative culture of experiential education at the Institute.
- Educate outstanding and globally competent graduates whose skills are in high
- demand across the globe.
- Focus on niche emerging multidisciplinary areas in both teaching and research that
- are of vital importance for the development of India and the world at large.
- Expand experiential education to include service-based community activities and
- international programmes.

In the last five years, DEI has made pioneering **contributions in the National Missions** initiated by the Government of India that includes, Digital India, Make in India, Skilling India, Swachh Bharat Abhiyan, Unnat Bharat Abhiyan and Women Empowerment.

Nineteen B.Voc. courses are being offered in important areas of local, regional, national and global relevance, that include:

Dairy Technology, Agriculture, Renewable Energy, Water, Sanitation and Waste Management, AI and Robotics, Digital Manufacturing and Internet of Things.

Provision for on-campus work enables students to earn while they learn. Affordable quality education ensures that nobody misses out on education opportunities due to lack of means.

Eminent leaders, educationists and academicians that include Pandit Jawaharlal Nehru, Shri R. Venkataraman and Dr. A.P.J. Abdul Kalam, both honourable Presidents of India, Prof. Richard Ernst, Nobel Laureate, have been impressed by the novelty and the farsightedness of the Founders of the system. Most of the ideas that are part of policy documents being prepared at various levels have already been successfully implemented in DEI.

The successful implementation of this innovative, comprehensive and integrated value education system is distinctive to its vision, priority and thrust. DEI is geared to lead and contribute to the advancement of human knowledge and attain wisdom to develop a more humane and enlightened society with its exemplary system of education.