Research Policy Document

As per UGC Guidelines



Approved in 28th Academic Council Meeting dated 10.10.2023

J.C. Bose University of Science and Technology, YMCA, Faridabad Sector-6, Mathura Road, Faridabad-121006, Haryana, INDIA

Research Policy Statement

J.C. Bose University of Science and Technology, YMCA, Faridabad, Haryana is a technical University committed to promote research, innovation & entrepreneurship as well as ensures that the outcomes of the same benefit the society.

Applicability of the Research Policy

The policy applies to all the faculty members, teaching & non-teaching staff, research scholars and students of J.C. Bose University of Science and Technology, YMCA, Faridabad, Haryana who are engaged in any form of research & innovation activity.

All research activities will be undertaken in accordance with the University's regulatory and ethical considerations.

Objectives

- I To explore technological development opportunities in common application areas for the welfare of the people.
- II To encourage and incentivize faculty members of the University for research publications in Web of Science or Scopus or other equivalent peer-reviewed/ reputed/ prestigious indexed journals.
- III To organize research promotion events like summits, conferences, seminars, workshops, summer schools, expert lectures and panel discussions through talks with eminent personalities from reputed institutions and industries, etc.
- IV To motivate faculty members, research scholars, staff and students for applying a patent and also encourage them to present research papers in national and international conferences/ workshops.
- V To provide appropriate facilities and infrastructure for the advancement of research.
- VI To take initiatives for signing MoU's with reputed national/international institutions and industries for collaborative consultancy and research projects, etc.
- VII To identify the technical problems faced by the industry and to find effective solutions for the same through research projects and consultancy work, etc.

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1. Ordinance: Doctor of Philosophy

1.1 Preamble

The Ph.D. programme is an integral component of higher education at the University. All the teaching departments offer Ph.D. programmes in identified thrust areas which are based on facilities available and market requirements. Each year a consolidated list of the number of seats available will be prepared by the University for which the admission is to be made as per the process laid down in this Ordinance.

1.2 Locale

- I The degree of Doctor of Philosophy (Ph.D.) shall be granted by the J.C. Bose University of Science and Technology, YMCA, Faridabad in any of the faculties within its campus.
- II Subject to general guidelines issued by the Academic Council and overall control of the administration, the research activities for Ph.D. Programmes shall be regulated by the Post-graduate Boards of Studies & Research of the concerned department.
- III The applicants/ scholars shall be classified on the basis of the time devotion to the Ph.D. programme as
 - Full time
 - Part time

Preference will be given to full time Ph.D. scholars.

1.3 Constitution of Department Research Committee

The Department Research Committee (DRC) shall consist of the following provided each qualifies to be a Ph.D. Supervisor:

- I The Chairperson of the Department
- II All Professors of the Department
- III Three Associate Professors of the department by rotation, having a doctoral degree. The term of an Associate Professor will be of 2 years. If such teachers are not available in the department, then the Chairperson of DRC may co-opt members from outside the department/ University.

IV Supervisors of the scholars. They do not, however, constitute the regular members unless covered under I or II or III. They participate in DRC meetings only when the cases of their respective scholars are taken up. Also, the proposed supervisor is to be invited to participate in the DRC meeting when the case of his prospective candidate is taken up.

The Chairperson of the department shall be the Chairperson of the DRC. If the Chairperson does not qualify as Ph.D. supervisor, the senior most qualifying faculty member of the department will act as the Chairperson of the DRC.

1.4 Eligibility

- I A 1-year / 2-semester master's degree programme after a 4-year / 8-semester bachelor's degree programme or a 2-year / 4-semester master's degree programme after a 3-year bachelor's degree programme or qualifications declared equivalent to the master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade in a point scale wherever grading system is followed or equivalent qualification from a foreign educational institution accredited by an assessment and accreditation agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country to assess, accredit or assure quality and standards of the educational institution. The equivalence of the degree will be decided by the Board of Studies (BOS) of the concerned department in the University.
- II A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC / ST / OBC (non-creamy layer) / Differently-Abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the Commission from time to time.
- III Provided that a candidate seeking admission after a 4-year / 8-semester bachelor's degree programme should have a minimum of 75% marks in aggregate or its equivalent grade on a point scale wherever the grading system is followed. A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC / ST / OBC (non-creamy layer) / Differently-Abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the Commission from time to time.
- IV Candidates who have completed the M.Phil. programme with at least 55% marks in aggregate or its equivalent grade in a point scale wherever grading system is followed or equivalent qualification from a foreign educational institution accredited by an assessment and accreditation agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country to assess, accredit or assure quality and standards of educational institutions, shall be eligible for admission to the Ph.D. programme. A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC / ST / OBC (non-creamy layer) / Differently-Abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the Commission from time to time.
- V The candidates who appeared in the regular master's level examination in the current session may also appear in the entrance test. But they must submit proof of having passed the examination on the pre-designated date before admission to the Pre-Ph.D. course.
- VI The state reservation policy shall be followed in Ph.D. Admission.

- VII A candidate provisionally registered for Ph.D. shall be required to attend classes for one semester for a Pre-Ph.D. course work.
- VIII The candidates who are awarded a fellowship by the University / outside agency to carry out Ph.D. work, shall be required to stay at the University headquarter for the whole duration of the fellowship. The Chairperson of the department concerned will certify the stay of the candidate.

1.5 Additional Eligibility Conditions for Part Time Ph.D. Admission

- I The applicant should be an employee of an educational institute/organization/Industry and must produce a 'No Objection Certificate (NOC)' from his/her employer on or before the interview, clearly stating that:
 - (i) The candidate is permitted to pursue studies on a part-time basis.
 - (ii) His/her official duties permit him/her to devote sufficient time for research.
 - (iii) If required, he/she will be relieved from the duty to complete the course work.
- II The candidate proves to the satisfaction of the DRC that his/her official duties permit him/her to devote sufficient time for research.
- III The candidate proves to the satisfaction of the DRC that facilities for pursuing research are available at his/her place of work in the chosen field of research.
- IV He/she will be required to visit the University (on working days) to meet his/her supervisor in the department at least twice in a month and such visit is to be reported to the Chairperson DRC for the record.

1.6 Rules for Full Time Ph.D.

The full time Ph.D. programme will have the following three categories of scholars admitted to the programme

- I A research scholar getting a University Research Scholarship (URS).
- II A research scholar receiving fellowship/scholarship from outside organizations such as CSIR, UGC, QIP, DST, AICTE etc.
- III A research scholar, who does not receive financial help like scholarship/ assistantship from the University, or from any other source during his/her Ph.D. programme.

1.7 University Research Scholarship (URS) & Teaching Assistantship (TA)

I Four University Research Scholarships (URS) will be available every year. The amount of this scholarship shall be Rs. 25000/- per month. It will be tenable for two years in the first

instance. This scholarship may be extended for a period of one year i.e. 3rd year by the Vice-Chancellor on the recommendations of the committee consisting of the Chairperson, senior most teacher of the department and the supervisor of the scholar. Further publication in SCI/SCIE journals is mandatory with completion of 50% research work for extension of University Research Scholarship.

- II For the purpose of University Research Scholarship the faculties are divided as:
 - Faculty of Engineering and Technology (Department of Mechanical Engineering / Electrical Engineering / Electronics Engineering / Civil Engineering / Environmental Engineering).
 - (ii) Faculty of Informatics and Computing (Department of Computer Science / Computer Applications) / Faculty of Interdisciplinary Studies and Research.
 - (iii) Faculty of Management Studies / Faculty of Life Sciences / Faculty of Liberal Arts and Media Studies (Department of English / Journalism and Mass Communication).
 - (iv) Faculty of Sciences (Department of Physics / Chemistry / Mathematics / Environmental Sciences).
 - (a) The scholarship will be issued amongst the faculties in the same group on a rotational basis. The rotation shall start on an alphabetical basis. This information will be provided in advance to the R&D cell so that the name of the Faculty and Department can be mentioned in the prospectus for that session.
 - (b) Dean of the concerned faculty will grant the scholarship to the Department again on a rotation basis.
 - (c) Department will recommend the name of the student having the highest merit to the Dean of the concerned faculty.
 - (d) In case the Department having a scholarship for that year does not fill its seat, it may be granted to the other department by the Dean of the respective Faculty.
- III URS will be awarded from the date of joining the department. However, the amount will be payable after the successful completion of Pre-Ph.D. coursework. Failure to complete Pre-Ph.D. coursework in a single attempt will disqualify the candidate for URS.
- IV The scholar will be required to do full-time research work under an approved guide.
- V The scholar will be required to submit attendance, duly countersigned by his/her supervisor and recommended by the concerned Chairperson to the Director (R&D) every month for the release of the scholarship.
- VI The scholar shall complete the full period of research work. In the event of a scholar discontinuing or giving up his work before the expiry of two years, or before the expiry of the extended period, if the extension was allowed, for no valid reason he/she shall be required to refund to the University 50% amount received by him/her. Provided that in very exceptional cases this condition may be waived by the Vice-Chancellor in consultation with the Dean of the Faculty, the Director (R&D), the Chairperson of the Department concerned, and the Supervisor.
- VII The scholar shall execute a Bond with the University in the form prescribed for the purpose of giving surety of any of the following:

- (i) A regular employee of this University.
- (ii) A person possessing property in the jurisdiction of Faridabad Court (mentioning the details of property).
- (iii) A regular employee of the Government.
- VIII Reports on the satisfactory progress of the work of the scholar shall be submitted to the DRC by the Chairperson of the Department concerned once every six months. The continuance of the Scholarship would depend on the satisfactory progress of the work of the scholars.
- IX Those research scholars who are not getting any kind of scholarship, may be given teaching assistantship (TA) with a maximum load of 6-8 hours/week (Laboratory/Theory Load only).
- X Only one TA per department per year may be given.
- XI Honorarium of Rs. 500/- per hour to the maximum of Rs. 15000/- may be given.
- XII Funds for TA may be sourced from research funds / SFS funds / DSW / department funds / other suitable heads.

1.8 Leave Rules for Scholars

Leave for a maximum of 15 days in a year in addition to general holidays may be allowed to all the full time Research Scholar by the Chairperson of the Department on the recommendation of the Supervisor. The scholar will not be entitled to any vacations. No other leave of any kind with scholarship will be admissible to a Research Scholar.

Female Ph.D. Scholars may be provided Maternity Leave / Child Care Leave for up to 240 days in the entire duration of the Ph.D. programme.

1.9 Conversion from Full Time to Part Time Ph.D. Programme

A full-time Ph.D. programme may be converted to a part time Ph.D. programme at the completion of a minimum of eighteen (18) months from the date of admission.

- I The request from the Research Scholar in this regard is made to the Director (R&D) through the proper channel.
- II He/she should have already passed the prescribed coursework.
- III His/her progress reports by his/her supervisor(s) for the previous eighteen (18) months are found satisfactory.
- IV In case, he/she has been offered a regular job in some organization, then he/she may obtain a 'No Objection Certificate' from his/her employer to continue his/her research work as a part-time Research Scholar at JCBUST, YMCA and enclose it along with his/her request for the purpose.
- V The Research Scholar may be allowed to register as a part-time candidate only after the recommendation of the SAC as well as DRC.
- VI The full time Research Scholar after conversion to a part time Research Scholar shall not be considered for any scholarship / stipend / contingency grant / teaching assistantship as meant for full-time.

1.10 Part Time Ph.D. for Sponsored Candidates

A part-time Ph.D. program may be offered to candidates with a minimum of 15 years of experience in a reputed industry/organization having R&D facilities, Govt. R&D Departments / National Research Laboratories / Units of Government / Quasi Government / Public sector etc. subject to the availability of Ph.D. seat and fulfilling other criteria for Ph.D. admission.

1.11 Enrollment

- I The enrollment to Ph.D. programmes in the teaching departments shall be made once a year through the entrance test conducted by the Controller of Examination / other agency as decided by the competent authority. The cut-off date for this will be decided on year to year basis.
- II The number of vacancies in various departments will be given on the University website and mention of the same will be made in the admission notices for information of the candidates. At the time of notifying the vacancies in newspapers, the number of vacancies for admission shall be indicated program wise.
- III The eligible candidate shall apply online for admission through University website or in the prescribed form as the case maybe.

1.12 Duration of the Programme

- I Ph.D. Programme shall be for a minimum duration of three (3) years, including course work, and a maximum duration of six (6) years from the date of admission to the Ph.D. programme.
- II A maximum of an additional two (2) years can be given through a process of re-registration. However, the total period for completion of a Ph.D. programme should not exceed eight (8) years from the date of admission to the Ph.D. programme.
- III The female Ph.D. scholars and Persons with Disabilities (having more than 40% disability) may be allowed an additional relaxation of two (2) years; however, the total period for completion of a Ph.D. programme in such cases should not exceed ten (10) years from the date of admission in the Ph.D. programme.

1.13 Procedure for Admission

The procedure for admission to Ph.D. programme shall consist of the following steps:

- I Receipt of applications through online/offline mode.
- II An Entrance Test shall be qualifying with qualifying marks as 50%. A relaxation of 5% marks (from 50% to 45%) will be allowed in the entrance examination for the candidates belonging to SC / ST / OBC (Non-creamy layers) / Differently-Abled, Economically Weaker Section (EWS) and other categories of candidates as per the decision of the Commission from time to time. The syllabus of the Entrance Test shall consist of 50% of research methodology and 50% shall be subject specific. The Entrance test will be of 2 hours duration having

100 questions of one mark each (50 marks of research methodology and 50 marks of the concerned discipline/branch). Entrance Test shall be followed by an interview to be organized by the department concerned.

- III The candidates who have qualified UGC-NET (including JRF) / UGC-CSIR NET (including JRF) / CEED / GATE / similar National Level tests will be exempted from appearing in the entrance test for Ph.D. Programme. However, they will have to appear in the interview as per schedule.
- IV At the time of the interview, doctoral candidates are expected to discuss their research interest/area through a presentation before duly constituted DRC.
- V Only the predetermined number of students will be admitted to Ph.D. programme in a department with provisional registration.
- VI The interview / viva voce shall also consider the following aspects, viz. whether
 - (i) the candidate possesses the competence for the proposed research
 - (ii) the research work can be suitably undertaken at the University
 - (iii) the proposed area of research can contribute to new/additional knowledge
- VII After having been admitted, each provisionally registered Ph.D. student shall be required to pass pre-Ph.D. coursework of one semester (minimum attendance required is 75%). The pre-Ph.D. coursework shall include 2 core and 2 elective courses with a minimum total credit of 12 as follows:
 - (i) Research Methodology (credit 4) including quantitative methods and computer applications
 - (ii) Research and Publication Ethics (credit 2) course as notified by UGC vide D.O. No. F.1- 1/2018(Journal/CARE)
 - (iii) Elective Course 1 (credit 4/3) suggested by DRC
 - (iv) Elective Course 2 (credit 3/2) suggested by DRC (can include MOOC also)
 - (v) The coursework will also include reviewing published research in the relevant field. The Departments should submit the report in their DRC in this regard.
- VIII For admission to Pre-Ph.D. course work the candidate will be required to deposit a fee as prescribed by the University.
- IX All candidates admitted to the Ph.D. programmes shall be attached with a provisional supervisor by the DRC of the concerned department. After admission, the candidate will be required to complete the coursework prescribed by the DRC within the initial three semesters. Admission of the candidate automatically stands canceled in case he/she is not able to pass coursework within the initial three semesters.
- X A Ph.D. scholar has to obtain a minimum of 55% of marks or its equivalent grade in the UGC 10-point scale (or an equivalent grade / CGPA in a point scale wherever grading system is followed) in the course work in order to be eligible to continue in the programme and submit the thesis.

- XI The evaluation of Ph.D. coursework examination will be done internally. The result will be declared within one month of Ph.D. coursework examination. Reappear examination for Ph.D. coursework shall be conducted along with the other semester exams. The candidates attaining less than the minimum qualifying CGPA will have to qualify with minimum CGPA requirement for confirmation of registration within two years.
- XII All Ph.D. scholars, irrespective of discipline, shall be required to train in teaching/education/pedagogy/writing related to their chosen Ph.D. subject during their doctoral period. Ph.D. scholars may also be assigned 4-6 hours per week of teaching / research assistantship for conducting tutorial or laboratory work and evaluations.
- XIII After successful completion of coursework, the candidate has to present synopsis before Scholar Advisory Committee (SAC) as per the schedule decided by the supervisor. In the synopsis, the scholar needs to mention the topic of the research. The DRC will consider and approve the synopsis of the candidate. The chairperson of the department will send constitution of SAC, MoM of SAC and DRC, filled Registration Form through concerned Dean of Faculty to R&D cell for the registration of the candidate.
- XIV The registration process of the scholar must be completed within 18 months of the admission of the candidate.
- XV Slight modification in the topic of research may be allowed upto six months before the submission of the thesis after approval from SAC and DRC.

1.14 Scholar Advisory Committee and its Functions

- I (i) There shall be a Scholar Advisory Committee (SAC) for each Ph.D. scholar. The proposed constitution of the SAC with minimum of three members (not exceeding five members) and having at least one professor is as follows:
 - (i) At least one expert in the field from the department/centre,
 - (ii) At least one faculty expert, preferably in the concerned area, from outside the department to which the student belongs or a different university: and
 - (iii) Supervisor(s).

[For (i) and (ii): Each member having (a) Total work experience of minimum five years, (b) Post Ph.D. experience of minimum of three years]

- II The research supervisor of the Ph.D. scholar shall be the convener of this committee, and this committee shall have the following responsibilities:
 - (i) To review the research proposal and finalize the topic of research.
 - (ii) To guide the Ph.D. scholar in developing the study design and methodology of research and identify the course(s) that he/she may have to do.
 - (iii) To periodically review and assist in the progress of the research work of the Ph.D. scholar.

- III Each semester, Ph.D. scholar shall appear before the SAC to make a presentation and submit a brief report on the progress of his/her work for evaluation and further guidance. The SAC shall submit its recommendations along with a copy of Ph.D. scholar's progress report to the DRC concerned. A copy of such recommendations shall also be provided to the Ph.D. scholar.
- IV In case the progress of the Ph.D. scholar is unsatisfactory, the SAC shall record the reasons for the same and suggest corrective measures. If the Ph.D. scholar fails to implement these corrective measures, the SAC may recommend, with specific reasons, the cancellation of the registration of the Ph.D. scholar from the Ph.D. programme.

1.15 Guidelines for Research Proposal / Synopsis

- I The candidate is required to provide evidence that he/she will be able to undertake research that will contribute to an existing body of knowledge and that can be completed within the required timeline. It is expected by SAC to see evidence in the proposal that the candidate has researched and is familiar with the proposed idea, has critically assessed the relevant literature, and considered a methodology to answer the research questions that are appropriate and feasible. The Research Proposal/Synopsis should broadly indicate the original research work undertaken, the title of the research work and objectives proposed to achieve it, the methodology adopted and expected outcomes. In general, the following could be the sequence of synopsis:
 - (i) Cover Page
 - (ii) Certificate by Candidate and Supervisor
 - (iii) Content Page
 - (iv) Introduction/ Background to the proposed research
 - (v) Motivation
 - (vi) Problem Statement and Objectives
 - (vii) Research Methodology
 - (viii) Expected Outcomes
 - (ix) Proposed Research Timeline
 - (x) References
- II The general guidelines are as follows:
 - (i) The synopsis should typically be 15 to 20 pages (excluding title pages) and should be neatly typed on both sides in Times Roman Font of size 12 with 1.5 spacing.
 - (ii) Synopsis must be unambiguous.
 - (iii) The objectives and methodology of the research should be stated in bullet form/itemized.
 - (iv) The entire text should be grammatically correct and must be at a reasonable language level.
 - (v) The synopsis must clearly mention the expected outcomes of the research.

(vi) Synopsis must be signed by the candidate and supervisor and countersigned by other SAC members testifying therein that the entire text of the synopsis has been read thoroughly and it is as per the guidelines.

III Format for Certificate by Candidate

DECLARATION

Body Text

I hereby declare that this research proposal entitled <TITLE OF RESEARCH PROPOSAL> by <NAME OF STUDENT > <(ROLL NO.)>, being submitted in fulfillment of the requirements for the Degree of Doctor of Philosophy in <NAME OF THE DEPARTMENT> under Faculty of <NAME OF THE FACULTY>, J.C. Bose of University of Science and Technology, YMCA, Faridabad, during the academic year <YYYY-YY>, is original and has not been presented elsewhere.

> (Name of Scholar) (Roll Number)

Dated:

IV Format for Certificate by Supervisor

CERTIFICATE

<Font-Style Times Roman,Bold, size-17.28>

Body Text

This is to certify that this research proposal entitled <TITLE OF RESEARCH PROPOSAL> by <NAME OF STUDENT>, submitted in fulfillment of the requirement for the Degree of Doctor of Philosophy in <NAME OF THE DEPARTMENT> under Faculty of <NAME OF THE FACULTY>, J.C. Bose of University of Science and Technology, YMCA, Faridabad, during the academic year <YYYY-YY>, is original research proposal to be carried out under my guidance and supervision.

I further declare that to the best of my knowledge, the research proposal being submitted does not contain any part of any work which has been submitted for the award of any degree either in this University or in any other University.

(Signature of Supervisor) Name of Supervisor Designation Department of <NAME OF THE DEPARTMENT> Faculty of <NAME OF THE FACULTY> J.C. Bose University of Science and Technology, YMCA Faridabad

Dated:

1.16 Cancellation Rules

- I If the candidate is not able to submit the fees, the accounts section should send his/ her name to the respective department and the department will issue a letter to the candidate. If the candidate will not submit fees after two consecutive semesters his/ her name may be struck off from the rolls of the University after the recommendation of the Chairperson and supervisor. He can be readmitted only after the recommendation by the concerned supervisor and Chairperson of the department. Pending fees, fines, and readmission charges shall be payable at the time of readmission.
- II If the candidate fails to submit his/ her progress report after every semester, after two consecutive such semesters, SAC may recommend the cancellation of admission.
- III In case two consecutive six monthly reports are unsatisfactory, SAC may recommend cancellation of the registration.
- IV If the SAC feels that the candidate lacks interest and motivation for research after completion of course work, the case may be presented to the DRC and DRC can recommend for cancellation of admission.
- V The Vice-Chancellor may cancel the registration of a candidate at any time, after the issue of a show-cause notice, on disciplinary or any other grounds, which are considered to be not in consonance with the dignity and behavior of a research scholar or non-payment of hostel or any other dues.

1.17 Allocation of Supervisor/Co-Supervisor

- I Regular faculty members working as Professor / Associate Professor with a Ph.D. along with three-year post-Ph.D. experience, and at least five research publications (out of which two must be in Web of Science) covered in UGC-CARE list and regular faculty members working as Assistant Professor with a Ph.D. along with three-year post-Ph.D. experience and at least three research publications (out of which one must be in Web of Science) covered in UGC-CARE list will be recognized as a Research Supervisor/Co-Supervisor in the University on the recommendation of the Board of Post Graduate Studies and Research. It is also mandatory to maintain research continuity by having at least three research publications in the last three years.
- II Research Supervisor/Co-supervisor who is a Professor, at any given point of time, cannot guide more than eight (8) Ph.D. scholars. An Associate Professor as Research Supervisor/Co-Supervisor can guide up to a maximum of six (6) Ph.D. scholars and an Assistant Professor as Research Supervisor/Co-Supervisor can guide up to a maximum of four (4) Ph.D. scholars. The Vice-Chancellor may permit these limits to exceed marginally on special grounds to be recorded.

The allocation of a research supervisor for a selected research scholar shall be decided by the department concerned depending upon the number of scholars per supervisor, the available specialization among the supervisors, and the research interest of the scholars as indicated by them at the time of interview / viva voce.

- III Scientists/Researchers/Faculty working on a regular basis in various IIT / NIT / Research Laboratories / Industrial Establishments (which are recognized by JCBUST) / Central University / State Govt. University / Govt. aided institutions / Directorate of Technical Education (DTE) with Ph.D. degree along with three-year post-Ph.D. experience and at least five research publications (out of which two must be in Web of Science) covered in UGC-CARE list shall, however, be permitted to act as Co-Supervisors. The prior consent of the co- supervisor shall be obtained before registration.
- IV The faculty member to be appointed as Supervisor or Co-Supervisor shall not be a spouse / blood relation of the research scholar to be registered for Ph.D. course.
- V In case of relocation of Ph.D. women scholar due to marriage or otherwise, the research data shall be allowed to be transferred to the University to which the scholar intends to relocate provided all other conditions in these regulations are followed in letter and spirit and the research work does not pertain to the project secured by the parent institution / Supervisor from the funding agency. The scholar will however give the credit to the parent guide and the institution for the part of the research already done.
- VI The faculty members on extraordinary leaves may continue to guide the candidates registered for Ph.D. programme under his/her supervision in the University. However, no fresh registration of Ph.D. scholars will be allowed by DRC for faculty members who proceeded on extraordinary leaves. If the Supervisor(s) of a candidate leave(s) the University before the completion of the research work or is/are otherwise unable to see the work through, due to some valid reasons, the Vice-Chancellor may allow a change of the Supervisor, as chosen by the candidate, on the recommendation of the DRC, if it is considered that the change of Supervisor is in the interest of the completion of the work.
- VII Faculty members with less than three years of service before superannuation shall not be allowed to take new research scholars under their supervision. However, such faculty members can continue to supervise Ph.D. scholars who are already registered until superannuation and as a co-supervisor after superannuation, but not after attaining the age of 70 years.
- VIII Each supervisor can guide up to two international research scholars on a supernumerary basis over and above the permitted number of Ph.D. scholars as specified in clause 1.17(II).
- IX At any point, the total number of Ph.D. scholars under a faculty member, either as a Supervisor or a Co-Supervisor, shall not exceed the number prescribed in clause 1.17(II) and clause 1.17(VIII).
- X Ph.D. admission of international students may be done keeping in view the guidelines/norms in this regard issued by statutory/regulatory bodies concerned from time to time.

1.18 Evaluation and Assessment Methods

- I Research Scholar shall submit progress report along with the presentation in every six months before SAC.
- II If the work of a research scholar is found unsatisfactory at any stage as reported by the supervisor(s), the DRC shall give him or her an opportunity to explain his/ her position and make suitable recommendations including de-registration. The Board of Post Graduate Studies and

Research may then recommend the cancellation of his or her registration to the appropriate bodies.

III No candidate shall join any other regular course of study or appear at any examination while conducting research. The Vice-Chancellor may, however, allow a candidate to appear in any examination or to attend a course which is conducive to his or her research and is of minor nature, including improvement of any previous result.

1.19 Pre-submission of Thesis

- I A Pre-Ph.D. submission is an essential requirement to assess the contents of the Thesis before the committee. On completion of the research work and complying with the submission requirements, the candidate shall submit to SAC with the prior approval of supervisor(s), a copy of the extended synopsis (**Appendix 1.A**) of his research work.
- II If SAC is satisfied that the research work has been completed as per pre-defined objectives and the research scholar meets the eligibility criteria for Pre-Ph.D. submission including published work (**two research papers in reputed journals and two papers presented in the conferences/seminars during the period of registration in the form of acceptance letter or the reprint*), the supervisor shall forward the same with the certificate (**Appendix 1.B**) through the Chairperson to the dean of the faculty concerned.

* Research papers must be in journals (free/unpaid journals) as per the UGC CARE list (https://ugccare.unipune.ac.in/); One research paper must be in Web of Science/ Scopus listed journals in the form of an acceptance letter or reprint.

The extended synopsis and other concerned papers of the research scholar shall then be forwarded to Director (R&D) for verification as per the checklist (**Appendix 1.C**). The file would then be routed back within three working days. The Dean of Faculty concerned would formulate a 4-5 members committee of the concerned department comprising of at least 2 Professors, an Associate Professor and an Assistant Professor possessing a Ph.D. degree for the conduct of Pre-Ph.D. presentation. The R&D cell will issue a formal notice to the Chairperson for conducting pre-Ph.D. seminar. The Chairperson will issue a notice regarding pre-Ph.D. seminar of the candidate wherein the date and time would be fixed in consultation with the supervisor, **at least 7 working days in advance** (except on holidays and vacations). Pre-Ph.D. seminar of the candidate shall be conducted in the presence of faculty members, research scholars, and PG students. External member(s)/expert(s) outside the department/university may be nominated for the same in case numbers of cadre are not available in the department. The committee would submit the report of Pre-Ph.D. presentation as per format (**Appendix 1.D**) to the concerned Chairperson along with extended synopsis and submit its recommendations to the Dean of Faculty as under:

(i) (a) If the committee is fully satisfied with the research work completed by the candidate, it will recommend to DRC to allow the candidate to write his/her thesis and submit the final draft within 6 months from the date of the Pre-Ph.D. seminar. The thesis can be submitted only after two months from the date of the Pre-Ph.D. seminar. If a candidate fails to submit the thesis in the stipulated period of six months from the date of the Pre- Ph.D. seminar, then an extension of two months in the submission period can be provided by the Director (R&D) on the recommendation of DRC. If the research scholar even then fails to submit his/her thesis within a stipulated period of 8 months, he/she will have to submit the thesis after making Pre-Ph.D. submission presentation again.

- (ii) If the committee is not satisfied with the research work done by the research scholar, it will advise the research scholar to make specific changes / undertake additional research work and resubmit the extended synopsis.
- III The final report of the committee and all other papers will be submitted to the office of the Director (R&D) for records.

1.20 Similarity Check in Ph.D. Thesis

- I **Zero Tolerance Policy in core area**: The core work carried out by the student, faculty and staff shall be based on original ideas and shall be covered by Zero Tolerance Policy on Plagiarism. In case Plagiarism is established in the core work claimed, then University shall impose penalty. The core work shall include abstract, summary, hypothesis, observations, results, conclusions and recommendations. For all other (non- core) cases, similarity up to 10% is allowed.
- II Exclusion from Similarity Checks for Plagiarism

The similarity checks for plagiarism shall exclude the following:

- (i) All quoted work either falling under public domain or reproduced with all necessary permission and/or attribution.
- (ii) All references, bibliography, table of content, preface and acknowledgements.
- (iii) All small similarities of minor nature.
- (iv) All generic terms, standard symbols and standards equations, scientific names of organisms
- (v) Own published work.
- (vi) Common knowledge or coincidental terms upto 14 (Fourteen) consecutive words

Note: In case of plagiarism, UGC policy for "Code of Ethics for Research" will be followed as per latest guidelines.

1.21 Submission of Thesis

- I When a candidate is ready to submit his or her thesis for evaluation, he or she shall write an application with consent from his or her supervisor to this effect and shall apply to the Chairperson.
- II The Ph.D. candidate shall submit three soft bound copies (format given in **Appendix 1.E**) and a link to the soft copy stored on any online storage medium (Google Drive / I Drive etc.) to the concerned department.
- III The candidate should also submit to the Chairperson, six copies of the summary of the thesis each indicating how far the thesis embodies the results of his or her own research or observation and in what respect his or her investigations appear to him or her to advance the study of the subject of his or her thesis. A link to the soft copy of the summary of the thesis should also be provided along with the soft copy of the thesis.

- IV The supervisor shall recommend to its DRC, a panel of a minimum of 8 specialists (examiners) of Professors rank either working or retired from Govt. / Govt. aided Institute / Govt. Universities / IITs / NITs / Central R&D Organization / Govt. Departments in the relevant field, out of which 3 specialists (examiners) will be from local states (Haryana, Punjab, Rajasthan, and NCR Delhi); 3 from outside local states and 2 from outside the country. However, the examiner shall not be from the University/Institute of the Supervisor/Candidate and will not be related to them. The PG Board of Studies & Research (BOS) of the concerned department shall approve the recommended panel. Member of BOS shall be avoided as an examiner/evaluator of the thesis. The BOS is free to include or change the names of the examiners.
- V The Chairperson of the department shall send this examiner's list (sealed envelope), duly signed by the members of the BOS, along with copies of the thesis and extended synopsis to the office of the Director, R&D. After verifying the checklist (see **Appendix 1.F**), the office of the Director, R&D shall forward this to the examination branch.
- VI The COE shall forward this examiner's list to the Vice-Chancellor. The Vice-Chancellor shall appoint finally three examiners, out of which at least one should be outside the local state and one should be outside the country. The Vice-Chancellor is authorized to appoint examiners from outside the panel forwarded by the BOS. The examination branch shall seek the consent of the examiners. If any of the examiner(s) show his/her inability to evaluate the thesis then the consent may be obtained from other examiner(s) approved by the Vice-chancellor. If the reply regarding the consent is not received within 15 days, then the examination branch can communicate with the other examiner after the approval of the Vice-Chancellor.
- VII If any examiner does not reply even after one month of consenting to examine the thesis, two reminders should be given to him at the gap of 15 days by COE and after that, the thesis may be sent to the next examiner after the approval of Vice-Chancellor. The entire process of evaluation of Ph.D. thesis should be completed within a period of six months from the date of submission of the thesis.

The evaluator will state categorically whether in his or her opinion:

- (i) Thesis should be accepted for the award of Ph.D. Degree; OR
- (ii) It should be referred to candidate for presenting it again in revised form; OR
- (iii) It should be rejected.
- VIII The evaluator shall state reasons for approval or rejection of the thesis. If he or she recommends re-submission/rejection, he or she shall specifically indicate what modifications he or she wants the candidate to incorporate in the thesis. If all the examiners recommend for the award of degree, they may also give in their report a set of questions which they would like to put to the candidate at the time of viva-voce. In case all of the examiners reject the thesis, it should not be evaluated further and stands rejected. In case one/two of the examiners reject the thesis, the Vice-Chancellor will send the thesis for evaluation to other examiners. If the examiner(s) recommends re-submission with modification, in that case, the candidate shall be asked to modify the thesis and submit the same after having carried out all the modifications within three months with a certificate from the supervisor(s) that all the modifications have been carried out as suggested by the examiner.

- IX A re-submitted thesis shall be examined by the examiner(s) who evaluated the original thesis unless any of them is unable or unwilling to do so in which case substitute(s) shall be appointed from the panel by the Vice-Chancellor. The examiner(s) for the revised thesis will only see whether the objections raised have been met or not.
- X A candidate whose thesis is rejected shall not be registered again for the Ph.D. degree with the same topic.
- XI The examiner for a thesis shall indicate in their report whether the thesis is fit for publication in its original or modified form. In the latter case, he shall make definite suggestions for improvement.
- XII If all examiners recommend the award of the degree, the candidate shall be examined through viva-voce examination by one of the examiners, to be nominated by the Vice- Chancellor. If all the examiners are unable or unwilling to conduct the viva-voce examination another person will be approved for the purpose by the Vice-Chancellor from the panel already approved by the PG Board of Studies and Research.
- XIII The viva-voce examination shall be conducted by the external examiner and will be held in the department concerned at J.C. Bose University of Science and Technology, YMCA, Faridabad. All the teachers including Supervisor/Co-Supervisor and research scholars will be invited to attend the viva-voce examination. The viva-voce examination will be based on the questions given by all the examiners. The candidate will openly defend the thesis in the viva-voce examination. The viva-voce examination of the candidate should be on any working day and Saturday in consultation with the examiner and supervisor (except on holidays and vacations).

Notice for Ph.D. viva must be issued **at least 7 working days in advance**. Four hard- bound copies of the thesis shall be submitted to the R&D cell after the final viva.

- XIV After the viva-voce examination, the thesis and the reports of all the examiners shall be placed before the Research Degree Committee (RDC) consisting of the Vice-Chancellor, the Dean of the Faculty concerned, the Chairperson of the University teaching department, Director R&D, COE and either of the Supervisor/ Co-Supervisor. Controller of Examination (COE) will act as Member Secretary of RDC. It shall be the function of the committee to consider the reports and to recommend to the Examination Branch, whether;
 - (i) The degree be awarded; OR
 - (ii) The thesis be revised and resubmitted for re-examination; OR
 - (iii) The thesis be rejected.
- XV Further, a provisional degree shall be issued from the date of the meeting of RDC to such students in whose cases the RDC has recommended for award of Ph.D. Degree. Along with the degree, the University shall issue a provisional certificate certifying to the effect that the degree has been awarded in accordance with the provisions of the UGC (Minimum Standards and Procedures for the award of Ph.D. Degree) Regulation, 2009 for Ph.D. candidates registered before July 5, 2016; While those registering after July 5, 2016, and before August 27, 2018, will be awarded in accordance with the regulations of 2016. The candidates registering after August 27, 2018, and before November 7, 2022, will be awarded in accordance with the

regulations of 2018. The candidates registering after November 7, 2022, will be awarded in accordance with the regulations of 2022.

- XVI COE will issue notification of the candidates whose Ph.D. degree is recommended by RDC within 7 working days of the RDC meeting to all concerned. Further, the University shall submit a soft copy of the Ph.D. thesis to the UGC within a period of seven days, for hosting the same in INFLIBNET, accessible to all institutions/universities.
- XVII After finalization of the award of Ph.D. Degree, one copy of the Ph.D. thesis will be sent to the University Library and the other to the Departmental Library. The third copy shall be sent to the supervisor and the fourth copy shall be returned to the candidate.
- XVIII No thesis shall be published without the prior permission of the University. The research scholar may apply to the Chairperson of the department for permission to publish his or her thesis. The Chairperson will place the request before the DRC which shall satisfy itself that the thesis is in publishable form. It will be guided by the reports of the examiners. A certificate will be obtained from the supervisor to the effect that the necessary improvements suggested by him or her and the examiners have been duly carried out. All the published theses will be put on the University website and will include a catalogue and abstract of the thesis.
- XIX The Academic Council on the recommendation of the Vice-Chancellor shall have the right to withdraw the degree, if plagiarism or duplication or any other form of malpractice is detected at any stage and to initiate such further action as it deems fit. Provided that the Vice-Chancellor shall get the complaint in the matter investigated confidentially and shall give the accused an opportunity to explain before he makes his recommendation on the matter to the Academic Council. There shall be no limitation of time for this action of the Academic Council.
- XX Research Advisory Council (RAC) has the final authority to take decisions for the promotion of research in the University.

1.22 Fee Structure

Fees to be paid by Pre-Ph.D. or Ph.D. candidate during the Ph.D. programme will be as laid down by the University from time to time.

- I The Fee structure w.e.f. 2023-24 is as follows:
 - (i) Fee for Pre-Ph.D. Coursework: Rs. 15000/-
 - (ii) Registration fee: Rs. 5000/- one time.
 - (iii) Tuition fee: Rs. 15000/- per semester.
 - (iv) Tuition fee (for Regular University Employees): Rs. 7500/- per semester.
 - (v) Caution Money (Refundable): Rs. 5000/- one time.
 - (vi) Full fee is required to be paid for the semester upto pre-submission.

(vii) In case the thesis is submitted by the scholar beyond the stipulated period of six months of pre-submission, full fee for the next semester shall be payable.

The semester system shall be followed as July-December and January-June. The Ph.D. Scholars are required to deposit their semester & other fees on or before 30th September and March. Otherwise, late fee for delayed payment will be as under:

- (a) upto 90 days: Rs. 1000/-
- (b) from 91 days to semester end: Rs. 2000/-
- (c) For more than one semester: Rs. 5000/- per semester
- (d) For more than two semesters: Name will be stuck off and readmission can only be done on the recommendation of the Vice-Chancellor. Besides the previous outstanding, a readmission charge of Rs. 15000/- shall be payable.
- II Refund policy of fees deposited by the scholars for the Ph.D. programme after admission cancellation:
 - (i) Refund application from the scholar received by the concerned department within one month of fees deposition: Full Fee will be refunded after deducting Rs.1000/- as processing fee by the Accounts Branch of the University on the recommendations of the Chairperson of the department concerned.
 - (ii) Refund application from the scholar received by the concerned department after one month but within two months of fees deposition: 50% of the fee will be refunded after deducting Rs.1000/- as processing fee by the Accounts Branch of the University on the recommendations of the Chairperson of the department concerned.
 - (iii) Refund application from the scholar received by the concerned department after two months of fee deposition: No refund of the fee.
- III The tuition fees must be paid by the Ph.D. scholar till the semester in which Pre-Ph.D. is being submitted.
- IV Remuneration payable to each examiner will be Rs. 5000/- for evaluation of the thesis and Rs. 3000/- for viva-voce. Remuneration for external expert(s) in pre-submission will be Rs. 3000/-. TA/DA shall be paid as per government norms, wherever applicable.
- V Foreign examiner shall be paid @\$150 per thesis as approved in 23rd Academic Council meeting.
- VI The Remuneration amount for an expert member (outside of the University) of the Research Scholar's Advisory Committee (SAC) shall be Rs. 2000/- per visit besides TA/DA.
- VII Thesis submission fee of Rs. 3500/- payable at the time of submission of thesis.

1.A Guidelines for Submission of Extended Synopsis

The Extended Synopsis should broadly indicate the work done, objectives proposed and achieved, the methodology adopted and outcomes in chapter wise description. In general, the following should be the sequence of Extended Synopsis:

- 1. Cover Page (Formatting as per Appendix 1.G/1.H)
- 2. Certificate by Supervisor
- 3. Content Page
- 4. Summary/ Introduction
- 5. Research Objectives
- 6. Organization of proposed thesis (chapter wise)
- 7. Contribution
- 8. Scope for further work

The Extended Synopsis should typically be 15 to 20 pages (excluding title pages). It should be neatly typed on both sides in Times Roman Font of size 12 with 1.5 spacing. The general guidelines are as follows:

- 1. Synopsis must be unambiguous. The title of the synopsis must be approved by DRC.
- 2. The objectives and methodology of the research should be stated in bullet form/ itemized.
- 3. The entire text should be grammatically correct and must be at a reasonable language level.
- 4. The Synopsis must clearly mention the expected outcomes of the research.
- 5. Synopsis must be accompanied by a certificate duly signed by Supervisor and countersigned by Chairperson concerned testifying therein that the entire text of the Synopsis has been read thoroughly and it is as per the guidelines.

1.B Certificate from Research Supervisor(s)

CERTIFICATE

and supervision

- (i) I further declare that to the best of my knowledge ______ research papers in ______ journals (free/ unpaid journals only) and ______ papers in conferences/ seminars during the period of registration (in the form of an acceptance letter or reprint) from which one research paper is in any Web of Science/ Scopus journals.
- (ii) There is prima facie case for the submission of the thesis and the thesis does not contain any work, which has been previously submitted for the award of any degree anywhere.
- (iii) The thesis is based on the individual, original work of the candidate, which is previously unpublished research work.
- (iv) The thesis shall not contain any material that infringes the copyright of any other individual or organization and does not hurt the sentiments of any individual(s) or religion(s). The information such as text, tables, equations, diagrams, figures, charts, graphs, and photographs taken from sources such as published work, like research papers, books, periodicals, websites or other sources has been cited appropriately. Further, the opinions expressed or implied in the thesis shall be entirely of the candidate.

(Signature of Supervisor) Name of Supervisor Designation Department of ______ Faculty of ______ J.C. Bose University of Science and Technology, YMCA Faridabad Dated:

1.C Check List for Scholars/R&D at the time of pre-submission

- 1. Minimum duration of three years, including coursework and a maximum as applicable under clause 'Duration of the programme'.
- 2. All progress reports out of which minimum of five satisfactory progress reports is required for thesis submission.
- 3. Pre-Ph.D. coursework certificate / DMC with a 55% or above marks or its equivalent grade in the UGC 7-point scale.
- 4. Ph.D. Registration Letter.
- 5. 6 copies of extended synopsis (spiral bound).
- 6. Two research papers (along with the cover page and contents list of that issue) as per UGC care list journal out of which one research paper is in any SCIE, Scopus or Web of Science indexed journals, during the period of registration in prestigious refereed international journal in the research area (free/unpaid journals only). The candidate should be the main author of the paper. The List of Publication out of the thesis should be divided into three categories:

(i) List of Published papers (ii) List of accepted papers (iii) List of communicated papers

The format of the list is given below:

Sr. No.	Title of	Name	Indexed in	Referred	Whether	Remarks
	the paper	of Jour-	(Web of	or Non-	you paid	(Impact
	along with	nal with	Science/	Referred	any money	factor
	volume,	ISSN and	Sco-		or not for	etc.)
	Issue No,	Publisher	pus/UGC/		publication	
	year of		Others)		(Yes/No)	
	publication					

7. Paper presentations at the conference/seminar as per below format (minimum two):

Sr. No.	-	Name of con- ference	Place where conference held	Mode (Online/ Offline)	Remarks

8. Patents, if any

1.D Pre-submission Seminar Report

Thesis examination is unable to commence until the pre-submission seminar has been completed.

Candidate details:

Name of the candidate:	
Student Registration No.:	
Faculty:	
Department:	
Supervisor/s:	
Date of Registration:	DD/MM/YYYY
Title of the thesis:	

Section A: Committee Report

Members of the Committee:

Г

Sr. No.	Name & Designation

Oral presentation

On what date was the oral presentation given?

Did the candidate provide a satisfactory oral presentation of at least 20 minutes?

Did all members of the review panel attend the oral presentation?

Thesis submission

Comments:

Did the candidate meet the guidelines for the thesis submission including any additional requirements of the faculty and/or Department?

D D / M M / Y Y Y Y	
Yes \Box No \Box	

Yes \Box No \Box

Yes 🗆 No 🗆

Overall feedback (If insufficient space below, please attach further information to this form) Comment on the quality of the content and delivery of the candidate's written and oral presentation.

Committee shall give specific Recommendation: Whether the candidate is allowed to submit his/her thesis as per the presentation of the work or modification are required.

Signature of committee members

1.E Ph.D. Thesis

Ph.D. thesis should be prepared in Latex using the following formatting

I ARRANGEMENT OF CONTENTS:

The sequence in which the thesis material should be arranged and bound should be as follows:

- (i) Cover page (Formatting as per Appendix 1.G/1.H)
- (ii) Inner cover page (Formatting as per Appendix 1.1/1.J)
- (iii) Dedication (optional)
- (iv) Candidate's Declaration
- (v) Certificate of the supervisor
- (vi) Acknowledgement
- (vii) Abstract
- (viii) Table of Contents
- (ix) List of Tables
- (x) List of Figures/ Graphs
- (xi) List of Photographs
- (xii) List of Abreviations
- (xiii) Body of the thesis
- (xiv) References
- (xv) Appendices
- (xvi) Brief profile of the research scholar
- (xvii) List of publications out of thesis

II PAGE DIMENSION, TYPING, AND BINDING SPECIFICATIONS

- (i) The dimension of the thesis should be in A4 size Photographs, if necessary, should be suitably mounted on the same quality paper as the thesis.
- (ii) The typing of the cover page, title page, declaration of candidate, certificate of supervisor and name of chapters should be only on one side of the paper whereas the other printing should be on both sides of the paper.
- (iii) The chapter numbers should be indicated in English numerals starting from 1.
- (iv) Three copies of the thesis in softbound and a soft copy is to be submitted for evaluation.
- (v) After the final viva, the thesis should be hardbound with a cover page printed on it in the specified format.
- (vi) Four copies of the thesis need to be submitted. In case of a candidate being supervised by more than one supervisor, the appropriate number of additional copies must be submitted.
- (vii) The colour of the binding (in hard) would be Red. The cover should have the material indicated in the **Appendix 1.G/1.H** printed on it and should be written with golden ink.

- (viii) The general text shall be typed in the font style 'Times Roman' and Font size 12. Use 1.5 spacing between the regular text and quotations.
- (ix) FONT

REGULAR TEXT – Times Roman 12 pts. and normal print **CHAPTER HEADING** – Times Roman 17.28 pts., bold print and all capitals **SECTION HEADINGS** – Times Roman 12 pts., bold print and all capitals **SUBSECTION HEADINGS** – Times Roman 12 pts., bold print and leading capitals i.e. only first letter in each word should be in capital. The margins for the regular text should as follows: Front Side - LEFT = 1.50", RIGHT = 1.00", TOP = 1.00", BOTTOM = 1.00" Back Side - LEFT = 1.00", RIGHT = 1.50", TOP = 1.00", BOTTOM = 1.00"

III PREPARATION FORMAT

- (i) Cover Page A specimen copy of the cover page of the thesis is given in **Appendix 1.G/1.H**.
- (ii) Inner Cover Page A specimen copy of the inner cover page of thesis is given in **Appendix 1.I/1.J**.
- (iii) Dedication A specimen copy is given in Appendix 1.K.
- (iv) Candidate's Declaration A specimen copy of Declaration certificate is given in **Appendix 1.L**.
- (v) Certificate of the Supervisor A specimen copy of Title page of certificate is given in Appendix 1.M. The certificate shall carry the Supervisor's signature and shall be followed by the Supervisor's name, academic designation, department etc.
- (vi) Acknowledgment A specimen copy of Acknowledgement certificate is given in Appendix 1.N.
- (vii) Abstract Abstract should be one or two pages synopsis of the thesis typed in one and a half line spacing, Font Style Times Roman and Font Size 12. A specimen copy abstract of the thesis is given in Appendix 1.O.
- (viii) Table of Contents The table of contents should list all material following it as well as and material which precedes it. One and a half spacing should be adopted for typing the matter under this head. A specimen copy of the Table of Contents is given in **Appendix 1.P**.
- (ix) List of Tables The list should use exactly the same captions as they appear above the tables in the text. One and a half spacing should be adopted for typing the matter under this head. A specimen copy of the list of Tables is given in **Appendix 1.Q**.
- (x) List of Figures/ Graphs The list should use exactly the same captions as they appear below the figures/Graphs in the text. One and a half spacing should be adopted for typing the matter under this head. A specimen copy of the List of Figures is given in Appendix 1.R.
- (xi) List of photographs –A specimen copy of the List of photographs is given in Appendix 1.S.
- (xii) Body of the thesis The chapters may be broadly divided into 5 parts (i) Introductory chapter including over view of the concerned area and organization of the thesis (ii)

Literature review (iii) Scope and objective, methodology of the thesis (iv) Chapters developing the main theme of the thesis work (v) Conclusion and future scope of work. The main text will be divided into several chapters and each chapter may be further divided into several divisions and sub-divisions.

- (a) The chapter title is the first-order heading. A chapter may be divided into section each of which has a section title (second-order heading). For example, in Chapter 3, the sections will be numbered 3.1, 3.2, etc. If at all possible do not further subdivide a section.
- (b) Use subsections (third-order headings) only if unavoidable. For instance, in section 3.2, the subsections will be numbered 3.2.1, 3.2.2, etc. Do not further subdivide beyond this point For example, subsection 3.2.2 may not be further divided into sub-subsections 3.2.2.1, 3.2.2.2 etc.
- (c) Tables and figures in a chapter should be placed in the immediate vicinity of the reference where they are cited. Font Times Roman, 12 pt. should be used for caption, centrally aligned.
- (d) Equations are centered on the page and labeled with Arabic numerals, right-aligned, in parentheses, and referred to only by those numbers in the text e.g., you should always say "as seen in (3)" rather than "as seen in Equation (3)". The only exception to this is if the equation number would begin a sentence, in which case you can say "Equation (3) shows..." in order to avoid the awkwardness of beginning a sentence with a numeral.
- (e) Footnotes should be used sparingly. They should be typed single space and placed directly underneath in the very same page, which refers to the material they annotate.
- (xiii) References A specimen copy of Bibliography is given in Appendix 1.U.
- (xiv) Appendices A specimen copy of Appendices is given in Appendix 1.V.
- (xv) Brief Profile of the Ph.D. scholar A specimen is given in Appendix 1.W.
- (xvi) List of Publications out of thesis –A specimen copy of the list of publication out of thesis is given in **Appendix 1.X**.
- (xvii) The running header should be blank and footer containing University name on the left and page numbering on the right in Arabic (Times Roman, 10 pt., Title Case), as shown in **Appendix 1.Y**.
- (xviii) Publication by the author related to the particular chapter must be in the footnote of the first page of the chapter (Times Roman, 8 pt.).

1.F Check List for Students / R&D Cell at the time of submission

- 1. Minimum duration of three years, including coursework and a maximum as applicable under clause 'Duration of the programme'.
- 2. Minimum of five satisfactory progress reports is required for thesis submission.
- 3. Pre-Ph.D. coursework certificate/ DMC with a 55% or above marks or its equivalent grade in the UGC 7-point scale.
- 4. 6 copies of extended synopsis and 3 soft-bound copies of thesis.
- 5. Two research papers (along with the cover page and contents list of that issue) from which one research paper is in any Web of Science and Scopus indexed journals, during the period of registration in a prestigious refereed international journal in the research area. The candidate should be the main author in the paper. The List of Publication out of thesis should be divided into three categories: (i) List of Published papers (ii) List of accepted papers (iii) List of communicated papers

The format of the list is given below

Sr. No.	Title of	Name	Indexed	Referred	Whether	Remarks
	the paper along with volume, Issue No, year of publication	of Jour- nal with ISSN and Publisher		or Non- Referred	you paid any money or not for publication (Yes/No)	(Impact factor etc.)

6. Paper presentations at the conference/seminar as per below format (attach proof):

Sr. No.	Title of the pa- per presented	Name of con- ference	Place where conference held along with Date(s)	(Online/	Remarks

- 7. Similarity report (not more than 10%) and certificate by Supervisor and Chairperson.
- 8. Thesis submission fee as applicable at the time of thesis submission.
- 9. No Dues Certificate from all the concerned departments/ sections.

1.G Thesis Cover Page

TITLE OF THESIS

(Capital Letters, Font-Times Roman, Size-17.28pt with single line spacing and 5mm vertical spacing)

THESIS

(Font-Times Roman, Size-14.4pt and 5mm vertical spacing)

Submitted in fulfillment of the requirement of Degree of (Font-Times Roman, Italic, Size-14.4pt and 5mm vertical spacing)

DOCTOR OF PHILOSOPHY

(Capital Letters, Font-Times Roman, Size-17.28pt and 5mm vertical spacing)

to

(Font-Times Roman, Italic, Size-14.4pt and 5mm vertical spacing)

(Font-Times Roman, Size-14.4pt and 5mm vertical spacing)

by

(Font-Times Roman, Italic, Size-14.4pt and 5mm vertical spacing)

NAME OF SCHOLAR (Capital Letters, Font-Times Roman, Size-14.4pt and 2mm vertical spacing)

> (Registration No.) (Font-Times Roman, Size-14.4pt and 5mm vertical spacing)

> Under the Supervision of (Font-Times Roman, Size-14.4pt and 5mm vertical spacing)

(Capital Letters, Font-Times Roman, Size-14.4pt and 5mm vertical spacing)



(Logo size 46mmx46mm and 5mm vertical spacing)

(Font-Times Roman, Size-14.4pt and 5mm vertical spacing)

J.C. Bose University of Science and Technology, YMCA, Faridabad Sec-6, Mathura Road, Faridabad-121006, Haryana, INDIA (Font-Times Roman, Size-12pt with single line spacing and 5mm vertical spacing)

> Month Year (Font-Times Roman, Size-14.4pt)

Example of Thesis Cover Page

COMPLETE TITLE OF THE RESEARCH WORK DONE BY THE SCHOLAR

THESIS

Submitted in fulfillment of the requirement of Degree of

DOCTOR OF PHILOSOPHY

to

The Faculty of (Name of Faculty)

by

RESEARCHER NAME (Registration No. DD-YMCA-123456)

Under the Supervision of

DR. SUPERVISOR NAME



Department of (Name of Department)

J.C. Bose University of Science and Technology, YMCA, Faridabad Sec-6, Mathura Road, Faridabad-121006, Haryana, INDIA

Month YYYY

1.H Thesis Cover Page (with co-supervisor)

TITLE OF THESIS

(Capital Letters, Font-Times Roman, Size-17.28pt with single line spacing and 5mm vertical spacing) THESIS

(Font-Times Roman, Size-14.4pt and 5mm vertical spacing)

Submitted in fulfillment of the requirement of Degree of

(Font-Times Roman, Italic, Size-14.4pt and 5mm vertical spacing)

DOCTOR OF PHILOSOPHY

(Capital Letters, Font-Times Roman, Size-17.28pt and 5mm vertical spacing)

to

(Font-Times Roman, Italic, Size-14.4pt and 5mm vertical spacing)

The Name of Faculty

(Font-Times Roman, Size-14.4pt and 5mm vertical spacing)

by

(Font-Times Roman, Italic, Size-14.4pt and 5mm vertical spacing)

NAME OF SCHOLAR

(Capital Letters, Font-Times Roman, Size-14.4pt and 2mm vertical spacing)

(Registration No.)

(Font-Times Roman, Size-14.4pt and 5mm vertical spacing)

Under the Joint Supervision of

(Font-Times Roman, Size-14.4pt and 5mm vertical spacing)

NAME OF SUPERVISOR

(Capital Letters, Font-Times Roman, Size-14.4pt) Supervisor (Font-Times Roman, Size-14.4pt) (Capital Letters, Font-Times Roman, Size-14.4pt) Co-Supervisor (Font-Times Roman, Size-14.4pt)

NAME OF CO-SUPERVISOR



(Logo size 46mmx46mm with 5mm vertical spacing above and below logo) Department Name (Font-Times Roman, Size-14.4pt and 5mm vertical spacing)

J.C. Bose University of Science and Technology, YMCA, Faridabad Sec-6, Mathura Road, Faridabad-121006, Haryana, INDIA (Font-Times Roman, Size-12pt and 5mm vertical spacing)

> Month Year (Font-Times Roman, Size-14.4pt)

Example of Thesis Cover Page with co-supervisor

COMPLETE TITLE OF THE RESEARCH WORK DONE BY THE SCHOLAR

THESIS

Submitted in fulfillment of the requirement of Degree of

DOCTOR OF PHILOSOPHY

to

The Faculty of (Name of Faculty)

by

RESEARCHER NAME (Registration No. DD-YMCA-123456)

Under the Joint Supervision of

PROF. SUPERVISOR Supervisor PROF. CO-SUPERVISOR Co-Supervisor



Department of (Name of Department)

J.C. Bose University of Science and Technology, YMCA, Faridabad Sec-6, Mathura Road, Faridabad-121006, Haryana, INDIA

Month YYYY

1.I Thesis Cover Page-Inside

TITLE OF THESIS

(Capital Letters, Font-Times Roman, Size-17.28pt)

THESIS

(Font-Times Roman, Size-14.4pt)

Submitted in fulfillment of the requirement of Degree of (Font-Times Roman, Italic, Size-14.4pt)

DOCTOR OF PHILOSOPHY

(Capital Letters, Font-Times Roman, Size-17.28pt)

to

(Font-Times Roman, Italic, Size-14.4pt)

The Name of Faculty (Font-Times Roman, Size-14.4pt)

by

(Font-Times Roman, Italic, Size-14.4pt)

NAME OF SCHOLAR (Capital Letters, Font-Times Roman, Size-14.4pt)

> (Registration No.) (Font-Times Roman, Size-14.4pt)

> Under the Supervision of (Font-Times Roman, Size-14.4pt)

NAME OF SUPERVISOR (Capital Letters, Font-Times Roman, Size-14.4pt) Affiliation of Supervisor (Font-Times Roman, Size-12pt)



Logo size 46mmx46mm

Department Name (Font-Times Roman, Size-14.4pt)

J.C. Bose University of Science and Technology, YMCA, Faridabad Sec-6, Mathura Road, Faridabad-121006, Haryana, INDIA (Font-Times Roman, Size-12pt)

> Month Year (Font-Times Roman, Size-14.4pt)

1.J Thesis Cover Page (with co-supervisor)-Inside

TITLE OF THESIS

(Capital Letters, Font-Times Roman, Size-17.28pt)

THESIS

(Font-Times Roman, Size-14.4pt)

Submitted in fulfillment of the requirement of Degree of (Font-Times Roman, Italic, Size-14.4pt)

DOCTOR OF PHILOSOPHY

(Capital Letters, Font-Times Roman, Size-17.28pt)

to

(Font-Times Roman, Italic, Size-14.4pt)

The Name of Faculty (Font-Times Roman, Size-14.4pt)

bv

(Font-Times Roman, Italic, Size-14.4pt)

NAME OF SCHOLAR

(Capital Letters, Font-Times Roman, Size-14.4pt)

(Registration No.)

(Font-Times Roman, Size-14.4pt)

Under the Joint Supervision of

(Font-Times Roman, Size-14.4pt)

NAME OF SUPERVISOR

(Capital Letters, Font-Times Roman, Size-14.4pt) Supervisor (Font-Times Roman, Size-14.4pt) Affiliation of Supervisor (Font-Times Roman, Size-12pt)

NAME OF CO-SUPERVISOR

(Capital Letters, Font-Times Roman, Size-14.4pt) Co-Supervisor (Font-Times Roman, Size-14.4pt) Affiliation of Co-Supervisor (Font-Times Roman, Size-12pt)



Logo size 46mmx46mm Department Name (Font-Times Roman, Size-14.4pt)

J.C. Bose University of Science and Technology, YMCA, Faridabad Sec-6, Mathura Road, Faridabad-121006, Haryana, INDIA (Font-Times Roman, Size-12pt) Month Year

(Font-Times Roman, Size-14.4pt)

1.K Dedication

DEDICATION

Body Text

Dedicated to my loved ones, mentors, and inspirations. ...

1.L Candidate's Declaration

CANDIDATE'S DECLARATION

Body Text

I hereby declare that this thesis entitled **TITLE OF THESIS** by **NAME OF STUDENT**, being submitted in fulfillment of the requirements for the Degree of Doctor of Philosophy in **NAME OF THE DEPARTMENT** under the Faculty of **NAME OF THE FACULTY**, J.C. Bose of University of Science and Technology, YMCA, Faridabad, during the academic year **YYYY-YY**, is a bona fide record of my original work carried out under guidance and supervision of **NAME OF SUPERVISOR, DESIGNATION, DEPARTMENT** and has not been presented elsewhere. I further declare that the thesis does not contain any part of any work which has been submitted for the award of any degree either in this University or in any other University.

(Signature of Student) Name of the Student Registration No. ———

Dated:

1.M Certificate

CERTIFICATE

Body Text

This is to certify that this thesis entitled **TITLE OF THESIS** by **NAME OF STUDENT**, submitted in fulfillment of the requirement for the Degree of Doctor of Philosophy in **NAME OF THE DEPARTMENT** under the Faculty of **NAME OF THE FACULTY**, J.C. Bose of University of Science and Technology, YMCA, Faridabad, during the academic year **YYYY-YY**, is a bonafide record of work carried out under my guidance and supervision.

I further declare that to the best of my knowledge, the thesis does not contain any part of any work which has been submitted for the award of any degree either in this University or in any other university.

> (Signature of Supervisor) Name of the Supervisor Designation Department of ——— Faculty of ——— J.C. Bose University of Science and Technology, YMCA, Faridabad

Dated:

1.N Acknowledgement

ACKNOWLEDGEMENT

Body Text

I would like to express my sincere gratitude to my Supervisor **Name of Supervisor** / Co-Supervisor **Name of Co-Supervisor** for giving me the opportunity to work in this area. It would never be possible for me to take this thesis to this level without his/ her innovative ideas and his/ her relentless support and encouragement.

•••••

•••••

Name of the Student Registration No. ———

1.0 Abstract

ABSTRACT

Body Text

Writing an abstract for your thesis is a crucial part of the process, as it serves as a concise summary of your entire thesis work. It provides a brief overview of your thesis, highlighting the key points, methodology, results, and conclusions. Your abstract is the first thing readers will see, so make sure it effectively captures the essence of your thesis work and entices them to read further. Abstract should be written within one to two pages.

1.P Table of Contents

TABLE OF CONTENTS

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Note: (Suggested format for chapters may be modified as per requirement)

List of Publications

151

1.Q List of Tables

LIST OF TABLES

Body Text

Table No.	Title of Table	Page No.
1.1	<title 1.1="" of="" table=""></td><td>3</td></tr><tr><td>1.2</td><td><Title of Table 1.2></td><td>7</td></tr><tr><td>2.1</td><td><Title of Table 2.1></td><td>12</td></tr><tr><td></td><td></td><td></td></tr></tbody></table></title>	

1.R List of Figures

LIST OF FIGURES

Body Text

Figure No.	Title of Figure	Page No.	
1 1		2	
1.1	<title 1.1="" figure="" of=""></td><td>2</td></tr><tr><td>1.2</td><td><Title of Figure 1.2></td><td>5</td></tr><tr><td>2.1</td><td><Title of Figure 2.1></td><td>15</td></tr><tr><td></td><td></td><td></td></tr></tbody></table></title>		

1.S List of Photographs

LIST OF PHOTOGRAPHS

Body Text

Photograph No.	Title of Photograph	Page No.	
1.1	<title 1.1="" of="" photograph=""></td><td>2</td></tr><tr><td>1.2</td><td><Title of Photograph 1.2></td><td>5</td></tr><tr><td>2.1</td><td><Title of Photograph 2.1></td><td>15</td></tr><tr><td></td><td></td><td></td></tr></tbody></table></title>		

1.T List of Abbreviations

LIST OF ABBREVIATIONS

Body Text

Symbol	Meaning
HTML	Hyper Text Markup Language
PDF	Portable Document Format

1.U References

REFERENCES

Body Text

- 1. APA (American Psychological Association) style citation system to be used in the social sciences, education, and engineering.
- 2. Vancouver style is a numeric citation system to be used in biomedical, health and physical sciences.
- 3. MLA (Modern Language Association) style citation system to be used by the Humanities.

Examples for APA Referencing System

- Aron, L., Botella, M., & Lubart, T. (2019). Culinary arts: Talent and their development. In R.
 F. Subotnik, P. Olszewski-Kubilius, & F. C. Worrell (Eds.), *The psychology of high performance: Developing human potential into domain-specific talent* (pp. 345–359). American Psychological Association. https://doi.org/10.1037/0000120-016
- Duckworth, A. L., Quirk, A., Gallop, R., Hoyle, R. H., Kelly, D. R., & Matthews, M. D. (2019). Cognitive and noncognitive predictors of success. *Proceedings of the National Academy of Sciences*, USA, 116(47), 23499–23504. https://doi.org/10.1073/pnas.1910510116
- Grady, J. S., Her, M., Moreno, G., Perez, C., & Yelinek, J. (2019). Emotions in storybooks: A comparison of storybooks that represent ethnic and racial groups in the United States. *Psychology of Popular Media Culture*, 8(3), 207–217. https://doi.org/10.1037/ppm0000185.
- Kabir, J. M. (2016). Factors influencing customer satisfaction at a fast food hamburger chain: The relationship between customer satisfaction and customer loyalty (Publication No. 10169573)
 [Doctoral dissertation, Wilmington University]. ProQuest Dissertations & Theses Global.

Sapolsky, R. M. (2017). Behave: The biology of humans at our best and worst. Penguin Books.

U.S. Census Bureau. (n.d.). U.S. and world population clock. U.S. Department of Commerce. Retrieved January 9, 2020, from https://www.census.gov/popclock/

Note:

- 1. APA style 7th Edition to be followed for referencing and citation. For more details, refer link https://apastyle.apa.org/style-grammar-guidelines/references/examples
- 2. For 3+ authors, cite as Grady et al. (2019).

Examples for Vancouver Referencing System

- Cheers B, Darracott R, Lonne B. Social care practice in rural communities. Sydney (AU): The Federation Press; 2007.
- Hofmeyr GJ, Neilson JP, Alfirevic Z, Crowther CA, Gulmezoglu AM, Hodnett ED et al. *A Cochrane* pocketbook: Pregnancy and childbirth. Chichester (GB): John Wiley & Sons; 2008
- Murtagh J. John Murtagh's General practice. 4th ed. Sydney (Australia): McGraw-Hill Australia; 2007.
- Darwin C. On the origin of species by means of natural selection or the preservation of favoured races in the struggle for life [Internet]. London (England): John Murray; 1859. *Chapter 5, Laws of variation.* [cited 2010 Apr 22].
- Australian medicines handbook online [Internet]. Adelaide (AU): *Australian Medicines Handbook Pty Ltd*; 2000. Paracetamol; [updated 2017 Jul; cited 2017 Nov 10]; Available from: https://amhonline-amh-net-au/.

Note:

1. Refer link https://www.ncbi.nlm.nih.gov/books/NBK7256/pdf/Bookshelf_NBK7256.pdf

Examples for MLA Referencing System

Mantel, Hilary. Wolf Hall. Picador, 2010.

Goldman, Anne. "Questions of Transport: Reading Primo Levi Reading Dante." *The Georgia Review*, vol. 64, no. 1, spring 2010, pp. 69-88. JSTOR, www.jstor.org/stable/41403188.

Note:

1. Refer link https://style.mla.org/

1.V Appendices

APPENDICES

Body Text

1.W Brief Profile of the Research Scholar

BRIEF PROFILE OF THE RESEARCH SCHOLAR

Body Text

When writing an author profile, it's essential to keep it concise. An author profile, also known as an author bio or biography, is a brief description of an author's background, qualifications, and relevant accomplishments. It introduces the author to readers and establishes credibility and authority in their field.

Remember that an author profile is a chance for the author to connect with their audience and build credibility, so it should be well-written and tailored to the readers' interests and expectations.

1.X List of Publications out of Thesis

LIST OF PUBLICATIONS OUT OF THESIS

Body Text

List of Published Papers

Sr. No.	Title of Paper	Name of Journal with ISSN	Volume, Issue & Page No./ DOI	Publisher	Indexed in (Web of Science/ Scopus/ UGC/ Others)	Published Month & Year
1.						

List of Accepted Papers

Sr No	Name of Journal with ISSN	Volume, Issue & Page No./ DOI	Publisher	Indexed in (Web of Science/ Scopus/ UGC/ Others)	Accepted Month & Year
1.					

List of Communicated Papers

Sr. No.	Title of Paper	Name of Journal with ISSN	Publisher	Indexed in (Web of Science/ Scopus/ UGC/ Others)	Present Status	Communi- cated Month & Year
1.						

List of Papers in Conference

Sr. No.	Title of Presented Paper	Name of Confer- ence	Place where conference held along with Date(s)	Mode (Online/ Offline)	Remarks
1.					

1.Y Header and Footer

HEADER

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FOOTER

JCBUST, YMCA, Faridabad

<Page No.>

2. Policy for Research Publication Award

2.1 Preamble

The cash awards will be presented to researchers (Faculty as well as students) in recognition of the importance of the published research work and to celebrate individual excellence in research. The publications considered must be listed in SCI expanded/ SSCI/ AHCI. The awards will be granted for the journal papers published in each year (1^{st} July – 30^{th} June). A call will be circulated annually and the entry form consisting of published research papers qualifying the selection criteria and completed in all respects should be returned to R & D Cell. The publication made in the journals, which seeks a publication fee shall not be considered for cash award.

2.2 Award Categories

- I Outstanding Research Awards: A cash prize of five lakh will be awarded in this category and the following criteria shall be applicable:
 - (i) For Engineering & Sciences: first 100 journals in the JCR list of SCIE
 - (ii) For Management Studies: First 25 journals in the JCR list of SSCI
 - (iii) For Humanities: First 25 journals in the JCR list of AHCI
- II Premier Research Awards: A cash price of one lakh will be awarded in this category for which paper published in journals listed in the first quartile (Q1) of the JCR will be considered.
- III Commendable Research Awards: A cash prize of 50 thousand will be awarded in this category. The paper must be a journal of impact factor at least one and indexed in SCIE/SSCI/AHCI.

2.3 Selection Criteria

- I In all categories of the awards, only those publications having the first author with our university affiliation (faculty/guide/scholar) will be considered.
- II For one academic year (1^{st} July 30^{th} June) maximum of three (3) publications of one author shall be considered for cash award and for the rest he/she will be given an appreciation letter only.
- III If the publication includes more than four authors but less than nine then the minimum impact factor for that publication must be five (5) and if the number of authors is nine (9) or more, then the minimum impact factor of the publication should be ten (10).

- IV All reference to the JCR (issued by Clarivate) shall mean the JCR of the applicable year in which the paper was published.
- V A declaration by the authors that no fee was paid for the publication is mandatory. vi) Presentation before the committee, constituted by Director R & D in consultation with the Vice Chancellor is mandatory for awards in the Outstanding Research Award category and Premier Research Award category.

2.4 Regulations for Division and Distribution of Award Prize

- I Case 1: If all the authors are amongst the University faculties and University students then the total prize amount will be disbursed equally to all the contributors.
- II Case 2: If one or more of the author(s) is external to the University then the prize amount will be divided by the total number of authors and equal part (one share) of the total prize amount will be disbursed to the University contributor. The prize amount of the external contributor will be subtracted from the total prize amount.

3. Guidelines for Young Scientist Award

3.1 Preamble

The University is promoting the research work and encouraging researcher scholars to contribute their extraordinary efforts in research. The research scholars of the University contribute in various ways and receives grants from reputed agencies. The University has started Young Scientist Award in the name of 'J.C. Bose Young Scientist Award' for the most promising research scholars.

3.2 Eligibility

- I Age limit should be 35 Years as reckoned on 16th September (University Foundation Day) of the current year.
- II Nominee should be a regular research scholar of JCBUST for at least one year but not more than five years, starting from current academic year.
- III The award will be granted to a nominee only once.
- IV The award will be granted to only one nominee from Basic Sciences and Engineering Sciences each.

3.3 Selection Procedure

- I Each nominee is required to provide a brief bio-data (from Registration in Ph.D. till date) to the department.
- II Nominee will provide list of research publications as First Author in SCI/SCIE indexed Journals. The publication should have only mentor(s) as co-author. The details of patent granted/ book authored/ award received, if any, should also be provided.
- III A department level screening committee consisting of DRC members will forward the name of eligible nominee to R & D Cell. The merit list shall be prepared as under:
 - (i) Publication: 20 marks per publication in SCI/ SCIE indexed journal as First Author b) Patent: 10 marks for each patent as a first patentee
 - (ii) Award conferred by a Govt. agency: 05 marks per award, International award 10 marks per award
 - (iii) The candidate should score minimum 60 marks to qualify for the award.

- IV A central level committee comprising of outside experts will recommend one name from Basic Sciences & Engineering.
- V No nomination will be considered in absentia.

4. Seed Money to the Young Researchers

4.1 Preamble

To motivate the young researchers of the University, R&D proposals are invited from interested faculty members in collaboration with students every year. These projects are sponsored by the University through self or other funding agencies. The seed money of maximum Rs 2 Lakhs can be granted to the selected projects for two years. For selection, the proposals are scrutinized by the expert committee comprising external experts.

4.2 Format for Submission of Research Proposal

(To be filled by the applicant)

- 1. Project Title
- 2. Broad Area
- 3. Sub Area
- 4. Duration in months
- 5. Project Summary (maximum 150 words)
- 6. Keywords (maximum 6)
- 7. Technical Details
- 8. Introduction
- 9. Review of the status of Research and Development in the subject
- 10. Importance of the proposed project in the context of current status
- 11. Methodology
- 12. Details about Principal Investigator

Name	
Exact designation	
Appointment Type	
Department	
Qualifications	
Experience in years	
Ph.D. students guided	
Publications	
Relevant experience	
Other information	
Mobile No.	
Email	
Signature	

13. Details about Co-Investigator

Name	
Exact designation	
Appointment Type	
Department	
Qualifications	
Experience in years	
Ph.D. students guided	
Publications	
Relevant experience	
Other information	
Mobile No.	
Email	
Signature	

14. Facilities/equipment available in the area of research proposed in the Department

Make and model	Cost in Rs.	Year purchased
	Make and model	Make and model Cost in Rs.

15. Budget Estimates – Non Recurring

Proposed equipment/s	Specifications	No of units	Cost in Rs.	Justification
Total(INR)				

16. Budget Estimates – Recurring

	Estimate for Year 1	Estimate for Year 2
AMC/Service charges	Nil (warranty period)	
Consumables & Contingencies		

By signing this certificate, I/We undertake to

- (i) Abide by all the rules/ regulations regarding the utilization of the amount that may be granted by the Institute.
- (ii) Submit timely progress reports about grant utilization.
- (iii) Submit the utilization certificate before the project period is over.
- (iv) Return full/ partial unutilized grant amount to the institute.

Date:

Signature of the Applicant

Date:

Signature of Chairperson of the Department

Scrutiny Report Format for the Project

Title of the project:	
Department:	
Name of Principal Investigator:	
Area of Project:	
Date of Scrutiny:	
Reasons for selection (✓)/ rejection (X)	
A viable and researchable problem	
An acceptable plan of action for undertaking the research	
Done sufficient preparation to establish the rationale for the research	
A feasible chance of completing the research	
Originality	
Creative thinking	
Budget and cost	
Any other comments:	

Research Proposal Scoring (🗸)

Score
5
4
3
2
_

Project: Selected/ Rejected

Name of the Expert: Designation:

Signature of the Expert

Report Format of the work done on the Research Project. (Report to be submitted after every 8 months)

- (1) Project report No. $1^{st}/2^{nd}$
- (2) Period of report: from to
- (3) Title of research project
- (4) (a) Name of the Principal Investigator (b) Deptt.
- (5) Effective date of starting of the project
- (6) Grant approved and expenditure incurred during the period of the report:
 - (a) Total amount approved Rs.
 - (b) Total expenditure Rs.
 - (c) Report of the work done: (Please attach a separate sheet)
 - i. Brief objective of the project
 - ii. Work done so far and results achieved and publications, if any, resulting from the work (Give details of the papers and names of the journals in which it has been published or accepted for publication.
 - iii. Has the progress been according to original plan of work and towards achieving the objective? If not, state reasons
 - iv. Please indicate the difficulties, if any, experienced in implementing the project
 - v. If project has not been completed, please indicate the approximate time by which it is likely to be completed.
 - vi. If the project has been completed, please enclose a bound copy of the final report of work done.
 - vii. Any other information which would help in evaluation of work done on the project.

At the completion of the project, the first report should indicate the output, such as

- (a) Manpower trained
- (b) Ph.D. awarded
- (c) Publication out of Project
- (d) Other impact, if any

Signature of

Principal-Investigator Co-Investigator Chairperson Dean

5. Guidelines for Carrying Out Sponsored Research Projects

5.1 Introduction

J.C. Bose University of Science and Technology, YMCA, Faridabad, considers the need to facilitate the research and development activities systematically to lay a strong foundation and register growth in research by generation of resources, research collaborations, and establishing links with industry as well as with social organizations. The University will handle the project management aspects related to accounts, purchases, recruitment, audits and liaisons with sponsors and prepare the status reports by following the rules and regulations as applicable to all activities stated therein.

5.2 Scope

- I The proposals submitted by a Department/ Center/ Employee of the University or by the University as such.
- II Sponsored Research Projects involving external funding sources.
- III International Research Collaborations involving international funding sources or international collaborators
- IV Industry/ Organization Sponsored Projects, Industrial Consultancy involving funding from industry

5.3 Definitions

- I *Sponsored Research Project* means a time and cost bound project sponsored by government, public, private, national/ international agencies or autonomous bodies.
- II *Sponsor* means the organization that offers a sponsored Project to the J.C. Bose University of Science and Technology, YMCA, Faridabad and provides necessary financial support for successful completion of the project in time.
- III *Principal Investigator (PI)* means a member of the faculty who submits the project proposal and negotiates with the sponsor and is instrumental in getting the project funding.
- IV *Co-Investigator or Co-Principal Investigator* means a working/ retired faculty member coopted by the PI to work jointly with him/ her and approved by the funding agency. In the

absence of PI (PI goes abroad for long time, PI gets retired, PI leaves the University) Co-PI will become in- charge of project as per norms of funding agency.

- V The project staff includes research technical and office personnel.
- VI *DRD* means Director (Research and Development) of J.C. Bose University of Science and Technology, YMCA, Faridabad.

5.4 Submission of the Project Proposals

- I The PI will complete the project initiation form as per Annexure/Form-1 for submission of the 'Research Project' to the various funding agencies and submit to DRD through the Chairperson of the concerned department. The Chairperson shall ensure that it would be possible for the department to accommodate the work of the research project.
- II In case, the project is to be sponsored by a non-government agency a statement on the terms and conditions of the project including the rights of patents and royalties must be spelled out clearly through a MoU/Agreement (to be vetted by Legal officer of the University) to be signed by the Registrar, DRD of the University and PI and the competent authority of the funding agency.

5.5 Sanction of the Project

- I The sanction letter and details of the amount sanctioned under different Budget heads, duration of the project and other terms and conditions shall be communicated to the Account Branch for entering the grant in the grant register by the PI.
- II The date of the start of the Project will be taken as the date when the first installment of the Grant is received. In case of any conflict, the guidelines of the funding agency shall supersede.

5.6 Operation of the Projects

- I Procedure for purchase of equipments, consumables, upgradation, repairs, annual maintenance contracts (AMC), renovation, and TA/DA expenses shall be followed as per University rules.
- II All purchases shall be executed by a Committee called the 'Project Purchase Committee (PPC) for each project consisting of the DRD's nominee, Chairperson of the department, PI (convener), Co-PI (if any) and one/two members of the Teaching Faculty.
- III An imprest amount equivalent to 5% of the total contingency grant with a ceiling of Rs.10,000/will be provided to the PI for smooth running of the Project.
- IV (i) Purchase of items(s) upto Rs.10,000/- can be affected by the PI without inviting quotations.
 - (ii) Purchases above Rs 10,000/- will be affected by inviting quotations or by spot quotation from the reputed firms (minimum three) by the PPC. E-Tenders/GEM will be used by the purchase department of the University as per University / funding agency rules.

- (iii) The DRD will maintain a list of all the equipments costing more than Rs.2 lacs that have been purchased in the University by different PIs in various departments. New purchases shall be added to the list as and when orders are placed.
- (iv) Consumables may be purchased from standard Indian or foreign companies as per University rules. Special requirements, if any, in this regard will be approved by the Vice-Chancellor.
- V The University TA/DA rules will normally be applicable to all sponsored research projects for field work and visits in Haryana or outside Haryana (in India or abroad). However, keeping in view the time-bound nature of the projects, the PI / Co-PI / research staff will be allowed to travel by taxi / own car / by air irrespective of their entitlement on the approval of Vice-Chancellor.
- VI Imprest amount for the field work: For the payment required for field work connected with the sponsored research increase in imprest amount will be allowed by the DRD upto Rs. 50000/- and beyond that by the Vice-Chancellor.
- VII The PI, Co-PI and the Project Staff shall be allowed to avail the leave to carry out the field work or collaborative work in another Laboratory relating to research work of the Project (In India or Abroad) on the approval of DRD for a leave upto 10 days in a year. Beyond that, the approval shall be given by the Vice-Chancellor on the recommendation of DRD. All such requests shall be forwarded by concerned Chairperson.
- VIII The Secretarial assistance: To look after the processing of bills, preparation of accounts reports, utilization certificate and other project related secretarial work a person may be hired on the Govt. Approved rates by PI in consent with DRD.
- IX The appointment of clearing agent: The clearing of the imported equipment and other items at the airport is a very tedious and time-consuming process. In order to save time and energy of the PI, the University shall appoint a clearing agent. The charges of the agent for each case shall be met out of the corresponding project budget head. Further, the University will provide a suitable vehicle if needed to bring the imported items from the airport.
- X Annual statement of expenditure and utilization certificate: The PI shall prepare the statement of expenditure and utilization certificate of every project by 30th April of the relevant year and send the same to the DRD / Accounts Branch for confirmation or reconciliation for onward transmission to the funding agency, or vice-versa.

5.7 Management of Overhead Charges

The total overhead charges in the project will be credited to the DRD fund and will be utilized by DRD in establishing the research labs or other such facilities.

- (i) Expenses related to the following can be met
 - Laboratory maintenance & renovation
 - Purchase/Repair of furniture, Air Conditioners, Personal Computers, Laptops and Printers

- (ii) Repair and up-gradation of scientific equipments and purchase of minor accessories of equipment.
- (iii) Advertisements in the newspapers of positions as well as other public notices.
- (iv) Hiring of manpower including secretarial assistance (typing / computer operation / accounting / bills etc.) shall be subjected to approval by the Vice Chancellor as appropriate at University/State Govt. approved rates. The assistance of student of Master's and Ph.D. course not getting any financial support can be provided at the rate of Rs. 125/- hour with a maximum limit of 25 hours per week after getting approval.
- (v) Expenses to meet local, domestic or international travels, hotel expenses and for visit to other laboratories (in India and abroad) for discussion or for collaborative research work.
- (vi) With the recommendations of the DRD, PI can utilize overhead charges in research related activities with the approval of the Vice Chancellor.

5.8 Appointments

For appointments under the project, the PI will send the draft advertisement to the DRD for approval, who will return it to the PI for notification/advertisement after giving approval. The application should be invited after giving wide publicity as per the funding agency rules regarding the vacancies. The terms and conditions of the appointments can be decided by a committee duly constituted by the Vice-Chancellor on the recommendation of DRD, if required.

5.9 Maintenance of Stock Registers

Each project should have a separate stock register for consumable and non-consumable items to be maintained by the PI or his/her office. The non-consumable items/equipment shall be transferred to the regular stock register of the department/ University after completion of the project unless otherwise stated by the funding agency.

5.10 Interim Progress and Accounts Reports of the Project

The PI shall prepare the progress report along with the statement of accounts which will be submitted to the Accounts Branch through DRD. These statements will be used by the Accounts Branch for preparing the utilization certificates (UC) to be submitted to the funding agency.

5.11 Final Technical and Financial Report of the Project

- I The final technical report shall be prepared by the PI in accordance with the requirements of the funding agency and submitted to the DRD for approval. However, the submission of the technical report to the funding agency will be the responsibility of the PI.
- II The final financial report including UC shall be prepared by the Accounts Branch in consultation with PI as per the requirements of the funding agency and submitted to the Registrar for approval. The submission of the required financial reports, approved by the Registrar, to the concerned agencies will be the responsibility of the PI.

5.12 Closing of the Projects

After the preparation of the final technical and financial reports on the closing of the projects, the following activities will be taken up:

- (i) Transfer of equipment and non-consumable items to the department/University through proper transaction in the stock registers.
- (ii) Closure of Project stock registers
- (iii) Return of unutilized funds to the funding agency along with UC.
- (iv) Any other activity as mandated by funding agency or University authorities.

5.13 Filing of Patents

In case of the PI creates/invents a novel product having commercial significance or develops a technique that may have industrial application, DRD will initiate the process for filing a patent through a negotiated settlement involving the PI, the funding agency and the University. All costs related to filing as well as maintenance of patent (Indian, International or any other patent) will be paid out of DRD funds.

5.14 Generation of Income

Any income from the project up to Rs. 5,000/- shall be used by the PI as per the approval of DRD. Any income up to Rs. 20,000/- shall be spent by the PI as per the approval of Vice-Chancellor. Any income beyond Rs. 20,000/- may be returned to the funding agency or utilized by the University as per the decision of the Vice-Chancellor.

5.A Format for Forwarding Research Projects Proposals

Annexure/Form – I

to

(Enclose two copies of project proposal with this form)

- 1. Principal Investigator
 - (a) Name:
 - (b) Designation:
 - (c) Date of Birth/Retirement:
 - (d) Department/Centre:
- 2. Co-Principal Investigator (if any)
 - (a) Name:
 - (b) Designation:
 - (c) Date of Birth:
 - (d) Department/Centre:
- 3. Title of the Project:
- 4. Duration of the Project from
- 5. Funding Agency:
- 6. Total Funds requested including Salaries (excluding overhead charges):
- 7. Overhead charges asked:
- 8. Whether the account of the earlier completed projects finally closed:
- 9. If not, the reasons for the same:

10. Information to be provided by the Principal Investigator

- (i) Total number of ongoing Projects:
- (ii) Total number of Projects completed in the last 10 years:
- (iii) The following information for each project should be given on separate sheet:

S. No.	Title of the project	Funding Agency	Date of Com- mencement	Date of completion

I understand that

(i) University will not provide any funds for the project work, equipment, salaries or contingencies,

- (ii) Any electrical wiring, water pipes and drains, etc. within the laboratory, renovation and air conditioning has to be met out of the 60% of the overhead budget and/or Department funds,
- (iii) Any extra space for the project has to be settled within the Department, University may not provide any additional space.

The investigators will follow the norms for the operation of the project framed from time to time by the DRD.

Date:	Signature of the Principal Investigator
Date:	Signature of the Co-Principal Investigator (if any)
Date:	Signature of the Chairperson (with seal)

Notes:

- (i) Two copies of the project proposal, one for the signature of the competent University authority and one for the records will be sent to the office of DRD. The investigator should get the signed copy collected within 2-5 days of submission, required copies with forwarding letters to the funding agency, directly or through the department.
- (ii) Co-Investigator who is not retiring before the date of the completion of the project is essential if the investigator is retiring before the date of completion of the project.
- (iii) The University may / may not forward the project proposal even if the answer to Q.8 is No.
- (iv) A copy of the norms for operation of the project will be sent along with the acknowledgement of the first installment of the money to the DRD.

5.B Format For Closing Research Project

Form – II

(Submit 5 copies)

Name of the terminated/completed project:

- 1. Principal Investigator
 - (a) Name:
 - (b) Designation:
 - (c) Date of Birth/Retirement:
 - (d) Department/Centre:
- 2. Co-Principal Investigator (if any)
 - (a) Name:
 - (b) Designation:
 - (c) Date of Birth:
 - (d) Department/Centre:
- 3. Duration of the Project:
 - (a) Date of the commencement:
 - (b) Date of completion:
 - (c) Reasons for delay, if any:
- 4. Funding Agency:
- 5. Total funds received including salaries without overhead charges:
- 6. Total overhead charge received:
- 7. Whether the final account of the Completed project for all the Years have been submitted and closed:

If not, reasons thereof:

- 8. Amount of the unspent balance:
- 9. Whether the unspent balance is to be returned to the sponsoring agency:
- 10. Whether the final technical and financial report of the project for onward transmission to the sponsoring agency, is enclosed or not:
- 11. List of non-consumable articles:

S. No	о.	Items (s)	Date of purchase	Cost at time of purchase

Whether transferred to the University/Department. If yes, details thereof. If no, reasons thereof:

12. Whether all the advance have been rendered and reconciled with the finance office: If not, reason thereof:

Date:	Signature of the Principal Investigator
Date:	Signature of the Co- Principal Investigator (if any)
Date:	Signature of the Chairperson (with seal)

6. Research Advisory Council (RAC)

6.1 Introduction

The Research Advisory Council (RAC) is the principal body of the University and provides the larger holistic vision of the research to be undertaken by the University including prioritization of the research areas.

The RAC also supervises, directs and monitors all the research activities including Ph.D. programs of the University.

The RAC will take cognizance of the problems being faced by the teachers/ researchers for submission of their proposals/ projects to various funding agencies like SAP, FIST, DST, etc. Policy matters related to research will also be put in the RAC meeting for consideration before putting it in Academic Council for approval.

6.2 Constitution of the Research Advisory Council (RAC)

S. No.	Members	Number	Designation
1.	Vice-Chancellor	1	In-Chair
2.	Dean (Academic Affairs)	1	Member
3.	Dean (Sciences)	1	Member
4.	Dean (Engg. & Tech.)	1	Member
5.	Dean (Informatics & Computing)	1	Member
6.	Dean (Management)	1	Member
7.	President (Institution's Innovation Council)	1	Member
8.	Director (IQAC)	1	Member
9.	Professor	3	Member
10.	Associate Professor	2	Member
11.	Assistant Professor	4	Member

12.	Outside Expert	3	Member
13.	Director (R&D Cell)	1	Member & Convener
14.	Dy. Director (R&D Cell)	1	Member & Coordinator

-Two-fifth of the members shall form the quorum.

- The members of the RAC shall hold office for a term of two years.

Research Advisory Council may be expanded with the inclusion of more members as necessary. The Director (R&D) shall be guided by the RAC. The RAC meetings should be held as and when necessary. The Research Policy shall also be reviewed every two years.