

J D College of Engineering & Management, Nagpur

(An Autonomous College)

(Established in 2008, Approved by AICTE and Recognized by State of Maharashtra, Presently Conferred with Autonomous Status by UGC and awarded Autonomy by DBA Technological University of Maharashtra from August 2019)

Notification – 1 of 2019

Minimum Standards and Procedure for Award of Ph.D. Degrees Rules

Whereas, Dr Babasaheb Ambedkar Technological University Act – 2014 (Maharashtra Act No- XXIX 2014), (hereinafter Called as ‘DBATU Act’) has come in to force with effect from June 2014.

AND

Whereas, The University Grants Commission has issued the University Grants Commission (Minimum Standards and Procedure for Award of M.PHIL./PH.D Degrees) Regulations, 2016, vide its Notification dated 05th May 2016, published in the Gazette of India No.278, Part III - Section 4, dated 5th July 2016. (hereinafter Called as ‘UGC Regulation 2016’)

AND

Whereas, The University Grants Commission has issued the University Grants Commission (Conferment of Autonomous Status upon Colleges and Measures for Maintenance of Standards in Autonomous Colleges) Regulations, 2018, vide its Notification dated 12th Feb 2018, published in the Gazette of India No.55, Part III - Section 4, dated 12th Feb 2018. (hereinafter Called as ‘UGC Regulation 2018’)

AND

Whereas, as per Sub-section 2 of Section 55 of DBATU Act for Autonomous Colleges, “Autonomous College may constitute its authorities or bodies and exercise the powers and perform the functions and carry out the administrative, academic, financial and other activities of the University”.

AND

Whereas, as per Sub-section 3 of Section 55 of DBATU Act for Autonomous Colleges, “The autonomous University department or institution or college or recognized institution may prescribe its own courses of study, evolve its own teaching methods and hold examinations and tests for students receiving instruction in it and award degrees or certificates of its own”.

AND

Whereas, the regulation has to be made for regulating the Minimum Standards and Procedure for the Award of Ph.D Degrees, incorporating UGC Regulations 2016, provisions in the Clause-O.1.4 & Clause-O.17 of First Ordinance of 2016 of DBATU and Clause R3 of First Rules and Regulation of 2016 of DBATU,

Therefore, I, Dr S. R. Chaudhari, Chairman of Academic Council, exercising the power vested in me under the provision in clause R.32 of 'Ordinance and Regulations- 2019' of J D college of Engineering & Management, (JDCOEM), do hereby issue the Notification- 01 of 2019.

- i) This Notification shall be called "Minimum Standards and Procedure for Award Ph.D. Degrees Rules"
- ii) This notification shall come in to force with effect from the date of its issuance.
- iii) Under this Notification the College will offer Ph.D. programme in the academic disciplines of Civil Engineering, Computer Science & Engineering, Information Technology, Electrical Engineering, Electronics and Telecommunication Engineering, Mechanical Engineering, under the faculty of Engineering and Technology and in the academic disciplines of Chemistry, Mathematics, Physics and Humanities, under the discipline of Sciences and Humanities.
- iv) These rules and regulations shall also be applicable for any new Ph.D. programs introduced by the JDCOEM from time-to-time.

1. Definition :

- i) "College" shall mean J D College of Engineering & Management (JDCOEM)
- ii) "RAC" shall mean the Research Advisory Committee, as defined under Clause 8 of Gazette of India for UGC Regulations – 2016, regarding Ph.D.
- iii) "RRC" shall mean Research Recognition Committee.

Definitions of all other Committees and Terminologies are defined in Ordinance and Regulations of 2019 of JDCOEM

2. Eligibility :

- 2.1 The candidates applying for Ph.D. Programs in all Engineering disciplines/ Science/Humanities should have passed M. E. /M. Tech. or equivalent degree in relevant discipline with minimum 60% of marks (55% in case of reserved category/ differently abled candidates from the State of Maharashtra only) awarded by any recognized Institute / University.
- 2.2 The candidates applying for Physics, Chemistry and Mathematics should have passed M. Sc. or equivalent degree in the relevant subject with minimum 60% of marks (55% in case of reserved category candidates from the State of Maharashtra only) awarded by any recognized Institute.
- 2.3 The candidates applying for Humanities should have passed M. A. or equivalent degree in the relevant subject with minimum 60% of marks (55% in case of reserved category candidates from the State of Maharashtra only) awarded by any recognized Institute/ University. A person whose M.Tech. /M.Sc. /M.Phil. dissertation has been evaluated and the viva voce is pending may be admitted to the Ph.D. programme of the same Institution.
- 2.4 Candidates possessing a Degree considered equivalent to M.Tech /M.Sc/M.A Degree of an Indian Institution, from a Foreign Educational Institution accredited by an

Assessment and Accreditation Agency of that country which is approved, recognized or authorized by a relevant competent authority for admission to Ph.D. programme.

2.5 The employed candidates applying for full-time and part-time programs for the Degree of Ph.D. will have to submit 'No Objection Certificate' from their employer in the prescribed format. (**Annexure I & II**)

2.6 A predetermined and manageable number of vacancies for Ph.D. programs in the respective academic sessions depending on number of the available eligible Faculty Supervisors and the vacancies offered will be displayed on the websites of the college.

3. Duration of the Programme:

3.2.1 Ph.D. programme shall be for a minimum duration of three years, including course work and a maximum of five years.

3.2.2 Extension beyond the above limits will be governed by the relevant clauses as stipulated in the Ordinance of the JDCOEM.

3.2.3 The women research scholars and Persons with Disability (more than 40%) may be allowed a relaxation of one year for Ph.D. in the maximum duration. In addition, the women research scholars may be provided Maternity Leave/Child Care Leave once in the entire duration of Ph.D. for up to 240 days.

4. Admission Process:

4.1 The admission of the candidates for Ph.D will be on the basis of entrance test to be conducted in the prescribed manner in the college followed by an interview.

4.2 All candidates will have to appear for entrance test as well as interview for becoming eligible for admission.

4.3 A candidate seeking admission to the Ph.D. degree program shall apply on-line on the portal of JDCOEM in the prescribed application form on or before 31st January, or 31st July for admission respectively for the session starting from the following August or February of every academic year subject to availability of sufficient number of vacancy positions.

4.4 The link for on-line application will be activated in June and December every year. Brief admission notification will be published in the newspaper(s) and website of the College. Further necessary instructions to the candidates will be made available on the portal as soon as the link for on-line application is activated.

4.5 Candidates will be able to download and print their Hall Tickets for the Entrance Examination from the portal. Candidates must bring their Hall Tickets at the time of Entrance Examination along with valid photo ID.

4.6 There may be change in the dates mentioned above on account of some unavoidable Circumstances/ reasons. The change in the schedule will be declared by the College through admission notification/circular on the admission portal.

4.7 The College shall maintain the list of all the Ph.D. registered students on its website on year-wise basis. The list shall include the name of the registered candidate, topic of his/her research, name of his/her supervisor/co-supervisor, date of enrolment/registration.

5. Structure of Entrance Exam:

5.1 The Entrance Examination will be conducted in two parts;

1. General Aptitude Test and
2. Subject Specific Test

5.2 Paper–I: General Aptitude Test (100 Marks)

a) This Paper will have **40** Multiple Choice Questions (MCQs) of 2 Marks each covering Verbal Ability, Numerical Ability, and Reasoning Ability (total 80 Marks) and **5** General Descriptive Questions of 4 Marks each designed to test the candidates Motivation, Idea, Vision and Expectations (total 20 Marks).

Verbal Ability: To measure degree of comfort with the English Language,

Numerical Ability: To test confidence or comfort with Numbers and Calculations,

Reasoning Ability: To measure ability to understand and grasp relationships between concepts.

b) Candidate who scores **50 %** marks and above (45 % marks and above, in case of all Backward Class, Physically Handicapped candidates) in General Aptitude Test (Paper I) will be declared qualified. The list of qualified candidates (Paper I) will be displayed on the portal within week by the respective Department or the College.

5.3 Paper–II: Subject Specific Test (100 Marks)

1. The syllabus of Paper-II for various subjects covered under different branches will be the Syllabus of GATE examination of the respective branch of Engineering and/or GATE/SET/NET for Sciences and Humanities.

2. This Paper will have **40** Multiple Choice Objectives Questions (MCQs) of **2** Marks each (80 Marks) covering relevant subjects in the respective branch of Engineering or Sciences & Humanities and **5** Descriptive Questions of **4** Marks each designed to test the candidate's knowledge of the Core Subjects in the relevant Branch of Engineering and Technology or Sciences (20 Marks).

3. The College may periodically review and incorporate changes in the structure of the entrance examination in future which will be notified by the College at the time of admission notification.

4. Candidate who scores 50 % marks and above (45 % marks and above, in case of all Backward Class, Physically Handicapped candidates) in Subject Specific Test (Paper –II) will be declared qualified.

5. Candidate who has qualified GATE/NET/SET(or equivalent) or have passed M.Phil. Programme from any Statutory University/University approved teachers with more than 10 years teaching experience will be exempted from Paper-II Test.

5.4 Interview

Only the candidates who have qualified General Aptitude Test (Paper–I) and Subject Specific Test (Paper–II) can appear for an interview to be organized by the respective Departments. The Interview Committee shall consist of the following members

- (i) Head of the Department, Chairman.
- (ii) One Senior faculty member of the Department.
- (iii) Two external experts, nominated by Academic Council.

5.5 At the time of interview, prospective candidates are expected to discuss their research interest/area. The interview will carry 100 marks.

5.6 The list of candidates found eligible based on their performance in entrance test and interview for the offer of Ph.D. admission will be displayed in the order of GENERAL MERIT on the admission portal of the College.

5.7 The general merit list so prepared shall be valid only for a period of that academic year.

5.8 The College will follow the rules of the reservation policy of Government of Maharashtra, applicable for Minority Colleges, while granting admissions.

5.9 Candidates opting for full-time program can apply for scholarship to various funding agencies such as UGC/DST/AICTE/State Govt. etc.

5.10 Candidates qualified for Ph.D. may be considered for award of fellowship of sponsored research projects from Government organizations and industry.

5.11 The principal investigator of sponsored project is empowered to conduct additional interview for selection of project fellows from the pool of qualified candidates in that academic year.

5.12 Project staff already selected on the sponsored project has to clear the admission entrance test for admission and registration to the PhD program.

5.13. The names of the successful candidates admitted by the Colleges will be intimated to the University within two weeks of completion of the entrance test & selection process.

5.14. The department/college shall form a Research Advisory Committee (RAC) to review the progress of each candidate.

5.15. The selected candidates from the college will have to register with the University by paying the registration fees.

5.16. The college shall follow the same rigorous procedure of regular review of the PhD candidates as prescribed by the University, both full time as well part time PhD programmes and submit the six monthly review reports to the University for each candidate.

5.17. No candidate shall be permitted for PhD in distance education.

6. Fees to be paid:

All research scholars admitted for Ph.D. program will have to pay the fees notified by the College from time-to-time. This includes annual fees and one-time thesis processing fees to be paid at the time of submission of thesis.

7. Leaves

7.1 The full-time research scholars are not eligible for vacation. However, they are eligible to take leave (including duty leave) up to 30 days in the calendar year subject to approval of the Head of the Department on the recommendation of the supervisor.

7.2 The research scholars can avail duty leave for attending conferences/workshops/training programs with the prior approval of Head of the Department on the recommendation of the supervisor. (ANNEXURE – III)

7.3 If the proposed research work requires field visits, then the research scholar may be permitted for field visits for maximum period of six months with an approval of the Research Recognition Committee (RRC). The leave record of the research scholars shall be maintained by the concerned Research supervisor.

8. Research Recognition Committee:

8.1 There shall be a Research Recognition Committee for each discipline consisting of the following members:

1. Chairman, Board of Studies in the subject concerned (Chairman).
2. Head of the Department in the subject concerned. If HOD is the Chairman of the Board of the Studies, then senior most Professor/Associate Professor in the discipline of College shall be the member of the Committee.
3. One Professor of the College in the concerned subject, to be nominated by the Academic Council of the College, by Rotation for a period of two years.
4. One Associate Professor of the College in the concerned subject/area nominated by the Academic Council of the College for a period of two years by rotation.
5. One Assistant Professor of the College, if he has earned PhD in the subject area, nominated by Academic Council, for a period of two years by rotation.
6. A panel of minimum four number of subject experts nominated by the Academic Council of the College, as external members, for a Period of three years, at least one of them must be present for the meeting.

8.2 In the absence of the Chairman, senior most member present will act as Chairman in the meeting.

8.3 The Quorum of the Committee will be three members, of which one should be an external expert. If any nominated member does not attend three consecutive meetings, his membership will be deemed to be cancelled. The additional members can be included with the approval of Academic Council of the College.

8.4 The Research Recognition Committee shall approve the title, synopsis of thesis and decide the examiners for thesis evaluation of Ph.D.

8.5 The Research Recognition Committee shall review the progress reports submitted by the Ph.D. scholars through their supervisors and Research Advisory Committee.

9. Research Advisory Committee :

9.1 There shall be Research Advisory Committee (RAC) at each department of the College, which shall consist of :-

- i. Principal of the College as Ex-officio Chairperson
- ii. Chairman of Board of Studies of concern department (member).
- iii. One research supervisor in the subject or group of subjects comprised in the Board of Studies, nominated by the Principal of the College (member).
- iv. Research supervisor of the Ph.D. scholar (member)

9.2 The Committee shall have following responsibilities :

1. To review the synopsis and finalize the topic of research
2. To guide the research scholar to design and develop the research work and identify the course/s (Theory) that he/she may have to undertake.
3. To periodically review the progress of the research work and review the pre-submission seminar report of the research scholar.

9.3 A research scholar shall appear before the research advisory committee (RAC) once in a six month (as per Clause No. 16.1) to make a presentation of the progress of his/her research work for evaluation and further guidance (**ANNEXURE –IV**). The Six monthly progress report shall be submitted by the RAC to the college within one week for further decision of RRC.

9.4 In case the progress of the research scholar is unsatisfactory, the RAC shall record the reason for the same and suggest corrective measures. The research scholar shall have to re-appear for the presentation of his/her research work progress by incorporating corrective measures within one month.

9.5 If the research scholar fails to implement the corrective measures the RAC may recommend to the college with a specific reason for cancellation of the registration of the research scholar.

10. Allocation of Research Supervisor (Ph.D. Guide) :

10.1 The allocation of the supervisor for a selected research scholar will be decided by the Department in a formal manner depending on the number of vacancies available per research supervisor, the available specialization among the research supervisors and the research interest of the research scholar as indicated during interview by the research scholar.

10.2 An Associate Professor or Professor having Ph.D. degree and appointed in the colleges on a permanent regular basis, including those promoted to these posts

under the Career Advancement Scheme, shall be deemed to have been recognized as teachers of the University for guiding research for Master's and Ph.D. degrees in their respective subject.

- 10.3 Any regular Professor/Associate Professor (without Ph.D.) of the College with at least five research publications in SCI/SCOPUS Indexed journals can become supervisor or Co-Supervisor. Assistant Professor having minimum 10 years of teaching experience with a Ph.D. degree and at least two research publications in SCI/SCOPUS Indexed journals may be recognized as Research Supervisor. Provided that in areas/disciplines where there is no or only a limited number of refereed journals, the Institution may relax the above condition for recognition of a person as Research Supervisor with reasons recorded in writing.
- 10.4 Only a full time regular teacher of the College can act as a supervisor. The external supervisors are not allowed. However, Co- Supervisor can be allowed in inter-disciplinary areas from other departments of the JDCOEM or from other related institutions with the approval of the Research Recognition Committee.
- 10.5 Provided further that, in specific cases additional supervisor/s shall also be permitted for justified reasons. The decision of the Research Recognition Committee will be final.
- 10.6 A research scholar may be allotted additional supervisor/s at a later stage (depending on the necessity to do so) who is a recognized research supervisor in the same area. In case of additional supervisor, the quota of the supervisors shall be considered as affected by 0.5 from his/her available quota with the approval of the Research Advisory Committee.
- 10.7 In case of topics which are of inter-disciplinary nature where the Department concerned feels that the expertise has to be supplemented from outside, the Department may appoint a Research Supervisor from the Department itself, and a Co-Supervisor from outside the Department/ Faculty/College/Institution on such terms and conditions as may be specified and agreed upon by the consenting Institution/College.
- 10.8 A 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 can guide up to a maximum of **six** (6) Ph.D. scholars and an Assistant Professor can guide up to a maximum of **four** (4) Ph.D. scholars.
- 10.9 A research scholar having near relation (such as husband, wife, son, daughter, father, mother, brother, sister, uncle, aunt, nephew, niece, brother-in-law, sister-in-law, first cousin) with any research supervisor shall not be allotted to him/her in any case.
- 10.10 Normally a research scholar shall be required to complete his/her doctoral research under the Supervision of allotted (original) supervisor. However, the concerned Research Recognition Committee may allow change of supervisor on the production of a "No Objection Certificate" from the original supervisor and an

acceptance letter from the new supervisor. In case of such a change, the research scholar shall work for a minimum period of one calendar year under the new supervisor before he/she submits the thesis. The requirement of “No Objection Certificate” shall not be necessary if the research scholar justifies the non-availability of his original supervisor. The justification will have to be endorsed by the respective Head of the Department and recorded in writing.

10.11 Provided that the subject matter of research belongs to two different specializations of the same subject within the same Department and/or the subject matter of the research is of an interdisciplinary nature concerning two different Departments in the College, both the supervisors will have the equal status. The justification for the need of co-supervisor with reasons needs to be recorded in writing.

10.12 In case of resignation or retirement of a research supervisor the research scholar will be allowed to opt for another eligible supervisor in his/her subject of research. However, if the research scholar is willing to continue his/her research work with the same research supervisor and the research supervisor is willing to guide him from his new place of work/home he will be allowed to do so with the approval of the Governing Body on recommendation of the Academic Council. This clause is also applicable for co- supervisor.

10.13 In case of sad demise of a research supervisor, the research scholar will be allowed to opt for another eligible research supervisor in his/her subject of research. He will have to apply to the Principal for obtaining such permission of the Governing Body on recommendation of the Academic Council.

11. Course Work:

Credit Requirements, number, duration, syllabus, minimum standards for completion, etc.

11.1 All research scholars will have to complete mandatory Pre-Ph.D. course work as mentioned in following sub-sections within two semesters of which the first semester must be full time course work at the College.

11.2 The course work shall be treated as prerequisite for Ph.D. preparation. A minimum of five credits shall be assigned to one or more courses on Research Methodology which could cover areas such as quantitative methods, computer applications, research ethics and review of published research in the relevant field, training, field work, etc. Other courses shall be advanced level courses preparing the students for Ph.D. degree.

11.3 After the allotment of provisional registration numbers and passwords all the research scholars will be allotted theory course (other than Research Methodology) of minimum three-six credits as per requirement by the respective Research Advisory Committees on the recommendation of his/her research supervisor within a period of six months.

- 11.4 research scholars already holding M. Phil. degree through entrance examination and done the course work as per UGC prescription, admitted to the Ph.D. programme, may be exempted by the Department from the Ph.D. course work. All other research scholars admitted to the Ph.D. programme shall be required to complete the Ph.D. course work prescribed by the Department.
- 11.5 If suitable courses are not available in the College curricula, SWAYAM or MOOCs for a particular research scholar, the concerned Research Advisory Committee will design special course(s) and get them approved from Board of Studies and Academic Council of the College.
- 11.6 The College will try to provide instructional facilities for such courses. In case it is not possible to provide instructional facility, Ph.D. scholar will have to undergo such course(s) in self study mode. (**ANNEXURE – V**)
- 11.7 The research scholars shall have to submit a seminar report based on progress of the research work and present the same as open seminar at the Department Level. The seminar will be of five credits.
- 11.8 The research scholars must complete abovementioned coursework within one years from the date of provisional registration. The registration of the research scholars for Ph.D. degree shall be considered as provisional till he/she successfully completes the Ph.D. course work. The research scholar must upload the copies of his/her grade report(s) (in pdf format) on the portal.
- 11.9 On successful completion of the same within one year of his/her provisional registration, Controller of Examinations will issue a letter of confirmation of his/her Ph.D. registration to the research scholar.
- 11.10 However, in case the research scholar fails to successfully complete the same within one year of his/her provisional registration will stand cancelled and his/her Ph.D. program will be terminated at that stage without any notice. However, on the recommendations of the concerned Research Recognition Committee, the delay in completion of course work on account of some unforeseen reason/s maximum period up to 6 months can be extended by the Academic Council.
- 11.11 The period of provisional registration will be included in maximum period for the continued Ph.D. registration. Successful completion of Ph.D. course work shall be a mandatory pre-requisite for the submission of thesis for the award of Ph.D. degree.
- 11.12 Exemption from Attendance: Only part-time Ph.D. research scholars working in recognized research institutions/laboratories, Government R&D and Design organizations, teachers working in the College Departments/AICTE recognized institutions may be exempted from the physical attendance of **theory** course lectures at the discretion of the concerned Research Advisory Committee. However there is mandatory requirement of completion of course work and Research Advisory Committee shall provide guidelines for completion of course work (Relevant proof will be required).

12. Place of Research:

- 12.1 As per the provisions in the University Grants Commission (Minimum Standards and Procedure for Award of M.PHIL./PH.D Degrees) Regulations, 2016, vide its Notification dated 05th May 2016, the JDCOEM is eligible for the Place of research center. Also, as per the UGC regulations 2018 for Grant of Autonomy, the College can start new Ph.D. program with the approval of Academic Council of the College.
- 12.2 The research scholars admitted for the full time Ph.D. programs will have to work within the premises of the JDCOEM under the supervision of an allotted research supervisor who will maintain the log book of experimental/computational work done by the full time Ph.D. research scholars. The Heads of the respective Departments will regularly check whether log books are properly maintained.
- 12.3 Normally, a research scholar admitted for the part time Ph.D. programs will also have to work within the premises of the JDCOEM under the supervision of an allotted research supervisor who will maintain the log book of his/her visits and the experimental/computational work done. The Heads of the respective Departments will regularly check whether log books are properly maintained. However, a part time research scholar desires to work at any other “recognized” research Institution or Department, the same may be allowed, at the discretion of the respective Research Advisory Committee. Here, the term “recognized” means CSIR Laboratories and its respective Departments, Colleges and Institutes recognized by the respective affiliating State Universities to which the said Department, College or Institute is affiliated. If the place of the work is not recognized, then the Academic Council shall appoint a sub-committee of three subject experts to visit the place of research to verify the suitability of the place for conduction of research work.
- 12.4 The sub-committee will visit the place of research and submit its report to the Academic Council through research advisory committee to decide about recognition of the place of research. The decision of the Academic Council will be final. **(ANNEXURE – VI)**
- 12.5 All the full-time and part-time research scholars admitted for Ph.D. programs will be given similar facilities including the College Library and respective Departmental Laboratories. The use of the Laboratories from other Departments shall be permitted with the approval of the respective Heads of the Department. A formal request in this regard shall be made by the research scholar with the approval of Heads of the Department of his/her parent Department.

13. Provisional Registration of the Ph.D. research scholars:

- 13.1 All the research scholars admitted for Ph.D. programs shall deem to be provisionally registered and the provisional registration numbers and passwords

will be allotted to them on completion of admission process in for the respective academic session. The further process will be monitored through the portal. The research scholars will have to upload the desired information on the portal, as per the announcements displayed on the portal and the information sent to them via e-mail from time to time.

- 13.2 All the provisionally registered research scholars shall prepare a synopsis of proposed research work along with the title after completion of Course work. A copy of the same duly signed by his/her research supervisor (in pdf format) and endorsed by respective Head of the Department must be uploaded on the portal.
- 13.3 These synopsis' will be scrutinized by the respective RRC in the concerned subject which shall recommend to the same to the Academic Council for approval.
- 13.4 On approval of the Academic Council the final letter of registration will be issued and uploaded by the Controller of Examinations to the research scholar.
- 13.5 In case of non-confirmation of the title and synopsis by Academic Council the research scholar will be asked to submit revised title/synopsis within three months from the receipt of such communication from Controller of Examinations. Such proposal will be scrutinized by the respective Research Recognition Committee in the concerned subject which shall recommend to the Academic for approval. The decision of the Academic Council will be final.

14. Tenure of Registration:

- 14.1 The registration of the research scholar shall be valid and shall remain in force for a period of Five years from the date of provisional registration and shall stand cancelled automatically on expiry of Five years.
- 14.2 One Extensions up to maximum period of twelve months shall be permissible in those cases which are recommended by the research supervisor, Head of the respective Department and Research Advisory Committee. The decision for extension shall be taken by the respective Research Recognition Committee and informed to the Registrar to place before the Academic Council for information. The application for extension is required to be submitted at least three months prior to the date of expiry of registration.
- 14.3 The maximum period of registration for the Ph.D. research scholar shall be Six years (including extension of one year), after which the registration shall stand cancelled.

15. Cancellation of Registration:

- 15.1 The research scholar can opt for voluntary cancellation of Ph.D. registration on his/her request. In that event the application duly signed by the research scholar and duly endorsed by his/her research supervisor and Head of the respective Department shall be submitted to the Controller of Examinations. The research scholar shall personally appear before the Controller of Examination and shall

submit a declaration of cancellation in his own hand writing. The Controller of Examination shall then endorse the declaration and forward the application along with the declaration to the Academic Council through the Registrar. The said registration shall stand cancelled from the date of approval by the Academic Council.

- 15.2 If the research scholar is found guilty of commissions and omissions amounting to misconduct like indiscipline, dereliction of duties, unbecoming behavior, insubordination, plagiarism, continuous non-reporting for research work etc., any time during the course of his Ph.D. program, the report may be submitted by his/her research supervisor for cancellation of his/her registration to Academic Council only after the endorsement of Research Advisory Committee.
- 15.3 However, the Head of the respective Department before endorsement of such report brought before him by the research supervisor shall grant an opportunity to the research scholar for submitting his explanation and shall conduct such enquiry as deemed necessary. Such cases shall be placed before the Academic Council whose decision will be final. Provided further that in the event of cancellation of registration such research scholar who has received scholarship/ financial assistance from funding agencies like UGC, AICTE, CSIR, TEQIP, JDCOEM Fund etc., the amount so received shall be recovered from the research scholar.
- 15.4 In case of the involvement of the research scholar in a criminal offence involving moral turpitude shall be treated to be a misconduct and his/her registration shall be cancelled with immediate effect on his/her conviction by the Competent Court.

16. Submission of Biannual Progress Reports:

- 16.1 Each research scholar shall submit biannual progress report duly signed by his/her research supervisor, the Head of the respective Department and Principal to the Controller of Examinations, in the last week of June and December every year.
- 16.2 The Controller of Examinations will endorse the copy of progress report as a token of receipt. This copy of progress report (pdf format) must be uploaded on the portal by the research scholar on or before 30th June and 31st December every year. The Controller of Examinations will finalize the date of presentation of progress seminar. The presentation will be in front of RAC. **(ANNEXTURE - IV)**
- 16.3 If the research scholar fails to submit his/her progress report in the prescribed format by 30th June and 31st December, he/she will not be able to upload the same on the portal. However, in case of genuine difficulty and a valid reason for failing to do so, he/she can approach the Controller of Examinations personally and request to upload the progress report on the portal. The dead line to do so will be 15th January and 15th July in the respective academic sessions. After this date even the Controller of Examinations will not be able to upload the same as this facility will be automatically locked by the system.

- 16.4 If the research scholar fails to upload his/her progress report through Controller of Examinations by 15th January and 15th July in the respective academic sessions his case shall be referred to the Research Recognition Committee through Research Advisory Committee for further action.

17. Change In Title of the Thesis:

- 11.1 The Ph.D. research scholar may be allowed to change in the title of his/her research work such that the spirit and meaning of the original title remains intact, subject to approval of Academic Council. Provided he/she applies for the change at least one year before the anticipated date of submission of his/her thesis or earlier. The research scholar shall submit his/her application duly recommended by the supervisor, through concerned Head of the Department and Research Recognition Committee.
- 11.2 The Academic Council will approve the change in the title of the thesis on recommendation of research recognition committee if there is change in the topic of research.

18. Pre- Submission Seminar :

- 18.1 Prior to the submission of thesis, the research scholar shall present a pre-Ph.D. submission seminar before RAC in the Department. The Pre-submission seminar will be open to all faculty members, research scholars and M. tech. candidates for getting feedback and comments, which may be suitably incorporated into the draft thesis with the advice of the supervisor (**ANNEXURE – VII**)
- 18.2 The respective Head of the Department shall notify regarding the conduct of Pre-submission seminar at least two weeks in advance with a copy to Controller of Examinations. All the faculty members, research scholars and M. Tech candidates from all the Departments shall be invited to attend the Pre-submission Seminar.

19. Submission of the Thesis :

- 19.1 The Academic Council of the College shall evolve a mechanism/software to detect plagiarism and other forms of academic dishonesty by using Turnitin/Ithenticate software. While submitting for evaluation, the thesis shall have plagiarism check certificate by Turnitin/Ithenticate; a detail plagiarism check report should be submitted to RAC. The percentage of the plagiarism should not be more than 15 %. An undertaking from the research scholar and a certificate from the Research Supervisor stating the originality of the work is to be submitted. (**ANNEXTURE-VIII**)
- 19.2 The research scholar may submit his/her summary and thesis any time during the year, after the completion of minimum prescribed period of THREE years. A research scholar shall submit to the Controller of Examinations eight copies of summary (about 2000 words) in order to start the processing of his/her thesis for the evaluation. The research scholar must upload the copy of his/her summary (pdf format) on the portal.

- 19.3 The thesis can be submitted two months after the submission of summary but within six months from the date of submission of summary.
- 19.4 The research scholar must have published at least one research paper in SCI Indexed journal or three research papers in SCOPUS Indexed journals before the submission of the thesis for adjudication, and the research has to upload the evidence for the same in the form of acceptance letter or the reprint (pdf format) on the portal. The paper accepted for publication can also be considered towards fulfillment of this requirement. Result will be declared and forwarded to the University only after the submission of documentary evidence of publication of paper.
- 19.5 The research scholar must submit FIVE copies of his/her Ph.D. thesis along with prescribed Ph.D. thesis processing fees. The research scholar must upload the copy of his/her Ph.D. thesis (pdf format) on the portal.
- 19.6 In addition to above FIVE copies of thesis, the research scholar shall submit one copy each to supervisor, Co-Supervisor (if any), College Library and concerned department within one month after the successful completion of his/her Pre-Ph.D. seminar.
- 19.7 Guidelines for preparation of thesis: A research scholar submitting thesis for the Ph.D. degree is required to follow the instructions regarding the size, style and binding of thesis. The current guidelines are given in (ANNEXURE–IX). The College may review and make some changes in the guidelines from time to time.
- 19.8 The research scholars have to submit all prescribed certificates given in (ANNEXURE- X) at the time of submission of thesis.
- 19.9 The research scholars shall further submit a statement indicating the sources from where the information is being derived and the extent to which his/her work has based on the work of others. (ANNEXURE– VIII).
- 19.10 The Ph.D. thesis submitted by a research scholar shall be examined by his/her Research Supervisor and at least two external examiners. Out of two external examiners one should be from out of Maharashtra state or out of the country. The viva-voce examination, based among other things, on the critiques given in the evaluation report, shall be conducted by the Research Supervisor and at least one of the two external examiners, and shall be open to be attended by Members of the Research Advisory Committee, all faculty members of the Department, other research scholars and other interested experts/researchers.

20. On-line Processing of the Thesis:

- 20.1 The College shall prepare, maintain and update a data bank containing names of the Ph.D. thesis examiners along with their specialization, research areas, affiliation, addresses etc. with the approval of Academic Council.

- 20.2 The Ph.D. research scholar who has been provided with provisional registration number and password and have uploaded on the portal, their grade sheets of the allotted pre-Ph.D. course work including seminar, all biannual progress reports, annual presentation reports, pre-Ph.D. submission/seminar report, permission for thesis submission, summary (2000 words); his/her thesis will be taken up for further prescribed processing by the system automatically.
- 20.3 The system will randomly pick up six names of the Ph.D. examiners from the data bank matching research area of the Ph.D. research scholar whose thesis is being processed and the research area of Ph.D. examiner.
- 20.4 Out of these six randomly picked names of the Ph.D. examiners, the RRC will finalize the names of the examiner-1 and examiner-2.
- 20.5 A request letter to examine the Ph.D. thesis along with a copy of summary (pdf document) will be sent automatically by the system via e-mail . The examiners will be provided with a secured link through which they will be in a position to confirm their acceptance or non-acceptance on-line.
- 20.6 In case, there is no reply within three weeks of the request sent via e-mail, a reminder will be sent via e-mail by the system automatically.
- 20.7 In case, the response is not received to the reminder sent within fifteen days, the RRC will select again the examiner/s, from the list of remaining examiners, who will be called again as Examiner-1 and/or Examiner-2, to whom the request to examine the Ph.D. thesis will be sent. Action of clause 20.6 will also be repeated after the expiry of three weeks.
- 20.8 The RRC will select examiner/s to whom request to examine the Ph.D. thesis will be sent. In case any one or both of the examiner-1 and examiner-2 (mentioned in the clause 20.7) do not accept the request to examine the said thesis The examiner so replaced will also be termed as examiner-1 and/or examiner-2 thereafter.
- 20.9 On receipt of the acceptance of examiner-1 and/or examiner-2 the system will automatically send an e-mail along with the soft copy of the said Ph.D. thesis (pdf document) at the same instance. The examiners will be requested to evaluate the Ph.D. thesis within **Sixty days** and upload/submit their evaluation reports on-line through the secured link provided to them. The examiners will also be requested to send hard copies of their evaluation reports duly signed in the prescribed format by speed post to the Controller of Examinations.
- 20.10 At this stage the system will also send an e-mail to the Controller of Examinations giving the name of the Ph.D. research scholar whose thesis is being processed and the addresses of the examiners to whom the soft copies of his/her Ph.D. thesis has been mailed by the system. The Controller of Examinations will also receive a request via system generated e-mail to send the hard bound copies of the said Ph.D. thesis to the examiners.

- 20.11 The Controller of Examinations shall send the hard bound copies of the Ph.D. thesis by speed post to the examiners with a request to send hard copies of their evaluation reports duly signed in the prescribed format, within one week from the receipt of system generated e-mail.
- 20.12 In case the evaluation reports are not received on the portal within Sixty days then a system generated reminder will be sent to the respective examiner via e-mail with a request to upload the evaluation report within next twenty days.
- 20.13 If the evaluation reports are not received on the portal within this extended period of twenty days the system will send a request letter to the next examiner and above mentioned process will be followed in the same order.
- 20.14 The examiner thus appointed by the system will be hence forth termed as Examiner-3.
- 20.15 On receipt of two evaluation reports recommending the acceptance of the Ph.D. thesis for the open defense (viva voce) the Controller of Examinations will invite the examiner in the order of the receipt of their evaluation reports and fix the date of open defense in consultation with the research supervisor and concerned Head of the Department.
- 20.16 The Controller of Examinations will be responsible for organizing the defense within maximum thirty days after the receipt of second evaluation report recommending the acceptance of the Ph.D. thesis for the open defense.
- 20.17 In case one examiner recommends acceptance of the Ph.D. thesis for the open defense and the other examiner recommends non-acceptance (rejection). The system will send a request letter to the next examiner and above mentioned process will be followed in the same order. The examiner thus appointed by the system will be refereed as Examiner-N1. In such case the decision of the Examiner-N1 shall be final and binding on all concerned.
- 20.18 In case Examiner-1 and Examiner-N1 both recommend non acceptance (rejection) of the Ph.D. thesis for the open defense, such case will be placed before the Academic Council for information and final rejection. This decision of the rejection shall be final and binding on all concerned.
- 20.19 If any one of the Examiner-1, Examiner-2 and Examiner-N1 (in likely case of appointment of Examiner-N1) recommends major revision, the research scholar shall be informed accordingly by the Controller of Examinations and shall be permitted to submit his/her revised thesis within twelve months from the date of issue of such communication.
- 20.20 The Controller of Examinations shall send the copies of the revised thesis to the concern external examiner/s and the decision of the majority of the examiners shall be final and binding on all concerned.

- 20.21 The Institutions shall develop appropriate methods so as to complete the entire process of evaluation of Ph.D. thesis within a period of Nine months from the date of submission of the dissertation/thesis.

21. Viva-voce and Open Defense of the Ph.D. Thesis :

- 21.1 Once the date of defense is fixed by the Controller of Examinations, he shall notify the same to all concerned indicating date, time and place where the open defense will be held, at least two weeks in advance.
- 21.2 Head of the Department shall place a copy of notice of open defense indicating date, time and place where the open defense will be held, at least two weeks in advance. He shall also distribute/circulate this notice to other Departments at least two weeks before the scheduled date of open defense.
- 21.3 The viva-voce of the Ph.D. research scholar shall be arranged and conducted by the Head of the Department in the subject concerned who shall act as Chairman of the open defense committee. The invited external examiner and internal examiner (research supervisor) will be the members of the open defense committee. The external examiner and the internal examiner shall ask the questions to the defending Ph.D. scholar. In case the concerned Head of the Department is himself a research supervisor of the research scholar being examined the Chairman will be appointed by the Academic Council on the submission brought before it by the Controller of Examinations.
- 21.4 All the faculty members, research scholars and M.Tech research scholars from all the Departments shall be invited to attend the same. They may ask the questions to the defending Ph.D. research scholar with the permission of the Chairman. In case any dispute arises during the conduct of defense, the decision of Open Defense Committee shall be final.
- 21.5 The research scholar must obtain the “Clearance Certificate” from all the Departments/ Sections in the prescribed format of the College at least one week of scheduled open defense.
- 21.6 The Chairman of the open defense committee (ODC) shall hand over the report duly signed by him and both the members of the open defense committee to the Controller of Examinations immediately after the conclusion of the open defense. The Controller of Examinations shall upload this report (pdf document) on the portal and shall issue the system generated provisional degree certificate to the Ph.D. research scholar after due verification of the contents. **(ANNEXURE – XI)**
- 21.7 In case the Ph.D. research scholar does not defend his thesis to the satisfaction of the open defense committee, the examiners may unanimously recommend with reasons that a fresh viva-voce and open defense of the thesis be organized within period of not less than three months. If the defense is still not-satisfactory the committee would record the reasons for the same and refer it to the Academic Council for its consideration and final decision.

22. Depository with UGC :

- 23.1 Following the successful completion of the evaluation process and announcements of the award of provisional Ph.D. degree, the Controller of Examinations shall submit a soft copy of the Ph.D. thesis to the UGC within a period of thirty days, for hosting the same in INFLIBENT accessible to all Institutions/Universities.
- 23.2 The College shall issue a certificate, certifying to the effect that the Degree has been awarded in accordance with the Regulations issued by the UGC as per the Notification dated 1st June 2009 and published in Gazette on 11th July, 2009.

24. Conferment of Degree :

The Ph.D. degree shall be conferred on the research scholar in the ensuing convocation of DBATU on approval of the Academic Council and Executive Council of DBATU after the recommendation of Academic Council and the Governing body of the College.

ANNEXURE - I

No Objection Certificate (For Full-Time Candidate)

On Official Letter Head

To
The Registrar,
JDCOEM, Nagpur

Subject: No Objection Certificate for joining full-time Ph.D. program

Dear Sir/ Madam,

Mr./Ms. who is
working in this Institute/ Organization as is applying
for full-time Ph.D. program from the session This Institute/
Organization has **No Objection** for the same.

We are pleased to forward his/her application for admission to full-time Ph.D.
program at JDCOEM, Nagpur.

The employee will be relieved from his/her duties to join the full-time Ph.D.
program, if admission is offered by JDCOEM.

Date:

Signature of the authorized person:

Place:

Name:

Designation:

Seal of the Institute/ Organization

ANNEXURE - II

No Objection Certificate (for Part-Time Candidate)

On Official Letter Head

To,

The Registrar,

JDCOEM, Nagpur

Subject: No Objection Certificate for joining part-time Ph. D. Program

Dear Sir/ Madam,

Mr. / Ms. who is working in
this Institute/ Organization as is applying for
part-time Ph.D. program for the session

This Institute/ Organization have No Objection for the same.

We are pleased to forward his/her application for admission to part-time Ph.D.
program at JDCOEM, Nagpur.

We shall grant him / her leave of absence to attend the classes / examinations and
conduct research work prescribed by JDCOEM during the entire Ph.D. program as per
requirements, rules and regulations of the JDCOEM.

Date:

Signature of the authorized person:

Place:

Name:

Designation:

Seal of the Institute/ Organization

ANNEXURE - III

J D College of Engineering & Management,

Application form for Leave/Field Visits for Full-Time Ph.D. Candidate

Date:

To

The Head,
Department of,
JDCOEM, Nagpur

Sir,

I request you to kindly sanction Leave /Duty Leave for day/days

From to for the reason

Purpose of Duty Leave:

.....

(Research scholar has to submit a visit report to Head of the Department after every field visit).

My address during the leave period:

.....

.....

My leave record: Calendar year: _____ Leave consumed ____ days, Leave applied for _____ days, Leave balance _____ days

Thanking you,

Yours faithfully,

Signature

Name :

Roll Number /Registration No.

Recommended / Not Recommended Sanctioned / Not Sanctioned

Supervisor

Head of the Department

ANNEXURE – IV

J D College of Engineering & Management, Nagpur, Maharashtra

Progress Report

1. Name of the research scholar:
2. Registration Number :
3. Department :
4. Date of Ph.D. Admission :
5. Title of the Ph.D. Thesis :
.....
- a. Title approved at the time of registration:
.....
- b. Proposed revision in the title, if any:
.....
- c. Is the revised topic altogether different from what was registered? :
.....
.....
6. Period under review :
7. Previous Progress Seminar Date:
8. Details of fees paid till date: (Please attach the last photo copies):
.....
9. Progress report attached? : (Please attach photo copies):
10. Details of the theory course work carried out/to be carried out:
 - Title of theory course with date of completion: (Please attach photo copy of grade sheet) :
 - Title of seminar with date of completion: (Please attach photo copy of grade sheet):
.....
11. Place(s) of work during the period under review:
.....

12. Probable place(s) of work the next review period:

13. Any publication/s after registration till date: (Please attach photo copies):

.....

14. List of Conferences attended, if any, after registration till date (Please attach separate sheet, if required):

.....

15. Remarks of the Research Advisory Committee:

a) Quality of work done: Excellent / Good / Satisfactory / Not satisfactory

b) Quantity of work done: Enough/Just sufficient/Insufficient

c) Expected period for completion of program: One year /two years/three years/four years

16. Any specific comments / suggestions:

Name and Signatures of the Research Advisory Committee /Evaluation Committee Members

1. Supervisor of the Research scholar : _____

2. One Research Supervisor in the Subject : _____

3. Chairman of BoS : _____

4. Principal (Chairperson) : _____

Date: _____

Place: _____

ANNEXURE – V

J D College of Engineering & Management, Nagpur, Maharashtra

Course Registration Form

Name of the research scholar:

Department:

Date of Ph.D. Admission/Registration:

Title of Ph.D. Thesis as approved by RRC:

.....

.....

Date:

Place:

Signature of the research scholar

Courses recommended by RAC (Separate sheet may be used):

1. _____

2. _____

The Ph.D. research scholar wish to join the course titled

.....

which is offered by the teacher of

Department in the academic year We allow him to take this course

which is offered by our Department in the current semester by NPTEL/MOOCs or self-study mode.

Concerned Course Teacher

Concerned Head of the Department

Approval by the Head of the Department (Department to which Ph.D. research scholar has taken the admission)

Supervisor

Head of the Department

Copy to: Controller of Examinations

ANNEXURE – VI

J D College of Engineering & Management, Nagpur, Maharashtra

Application form for Recognition of Outside Laboratory / Department/Centre

(To be filled by the Head of the Laboratory/Department/Centre)

1. Name of the Laboratory/Department/Centre:

2. Address: (with Tel/Fax/e-mail/web-site) :

.....

.....

3. Name and address of the University/Institute/Organization:

.....

Technical and Scientific Information: (Write in a separate sheet and attach)

1. Major activities of the Organization

2. Details of facilities available with list of major equipment/ instruments/setup/
software/ pilot plant etc.

3. Details of Library facilities (books and Journals):

a) Total books in the related field

b) Journals in the related field (attach list)

4. List of computational facilities available (both inside the laboratory and as common
facility)

5. Details of the internet facilities available (both inside the laboratory and as common
facility)

Administrative Information:

1. Type of the Organization (Central Govt./State Govt./Public sector/Private sector/
Autonomous body):

2. Name, Designation and Address of the Head of the Organization:

.....

3. Name, designation and Address of the Head of the Lab/Dept/Centre:

.....

4. Major areas of activities (e.g. Biotechnology, CAD, etc.):

5. Any other information:

.....
.....
Certified that this information is furnished to obtain recognition for this Laboratory /
Department /Centre Ph.D. program in the area of

Date: _____

Signature of the Head of the Laboratory/Department/Centre

Name: _____

Designation: _____

Seal of the University/Institute/Organization

For office use only

Approval By Sub-Committee appointed by the Academic Council on (Date of meeting):

_____ vide Item/Resolution No. _____

Signature of the Members of the Sub-Committee

1. _____

2. _____

3. _____

Date : _____

ANNEXURE – VII

J D College of Engineering & Management, Nagpur, Maharashtra

Pre-PhD Submission Seminar Report

1. Name of research scholar :
2. Registration Number : 3. Date of Ph.D. Admission :
4. Department :
5. Title of the Ph. D. Thesis:
 - a) Title approved at the time of registration:.....
.....
 - b) Proposed revision in the title, if any:
.....
 - c) Is the revised topic altogether different from what was registered?
.....
6. Period under review (from the date of registration till date):.....
.....
7. Previous Progress Seminar Date:
8. Details of fees paid till date (Please attach photo copies) :
9. Biannual progress report(s) submitted till date:
10. Details of the course work carried out:
 - a) Title of theory course with date of completion (Please attach photo copy of grade sheet):
 - b) Title of seminar with date of completion (Please attach photo copy of grade sheet):
.....
.....
11. Place(s) of work after the previous progress seminar till date:
.....
12. Any publication(s) after registration till date (Please attach photo copies):
.....

13. List of conferences attended, if any, after registration till date (Please attach a separate sheet, if required):

14. Recommendations of the Research Advisory Committee (tick mark):

a. Thesis be accepted for submission and evaluation by examiners

b. Thesis may be accepted for submission and evaluation by examiners after minor modifications as suggested by RAC members. The thesis need not be referred to RAC again. The following member(s) of the RAC will ensure incorporation/ implementation of suggestions:

c. Major modifications are suggested by RAC members. The thesis may be referred to RAC again within one/two/three months after incorporation / implementation of suggestions.

d. The thesis in the present form is rejected. The research scholar is required to work further.

Minor / Major modifications suggested (if any)/ Comments (if any) (use separate sheet, if required):

Name and Signatures of the Research Advisory Committee Members:

1. Supervisor of the Research scholar : _____

2. One Research Supervisor in the Subject : _____

3. Chairman of BoS : _____

4. Principal (Chairperson) : _____

Date: _____

Place: _____

ANNEXURE – VIII

J D College of Engineering & Management, Nagpur, Maharashtra

Declaration by the research scholar

I hereby declare that the work being submitted in this thesis titled

.....

in partial fulfillment for the requirements for the award of degree of Doctor of Philosophy and submitted in the Department of, J D College of Engineering & Management, Nagpur, Maharashtra, is an authentic record of my own work carried out during the period to under the supervision of and (Name of Supervisors/Designation). The matter presented in this thesis has not been submitted for award of any other degree of this or any other University /Institute.

The sources of information has been derived form and the extent to which my work is based on the work of others is

Signature of the research scholar

Name of the research scholar: _____

Registration No.: _____

This is to certify that the above declaration made by the research scholar is correct to the best of my/our knowledge and belief.

Supervisor

Date :

Annexure - IX

Guidelines for Thesis Preparation

- (1) A research scholar submitting thesis for the Ph.D. degree is required to follow the instructions (described in this section) regarding the size, style and binding of thesis. All copies of the thesis shall be presented in a permanent and legible form in typescript and print. Drawing and Diagrams should be in black ink or dark coloured. Paper of good quality and sufficient capacity of normal reading should be used. The size of sheets used should normally be A4 (i.e. 8.27" x 11.69"). Margins at the binding edge shall not be less than 1.5" and other margins not less than 1".

One and half spacing be used in type script, except for foot notes where single spacing may be used. The title page of the thesis shall give the following information in the order listed below:

- a. The full title of the thesis and the subtitle, if any
 - b. The full name of the author (research scholar)
 - c. Name of Ph.D. Guide/ supervisor
 - d. The degree for which the thesis is submitted
 - e. The name of the College and the name of the Department
 - f. The month and year of submission
- (2) A table of contents shall immediately follow the title pages. If a list of tables and illustrations is provided, it should follow the table of contents and should list all tables, photographs, etc. in the order in which they occur in the text. Any acknowledgements shall be on the page following the table of contents. If the thesis contains any material which the author has used before, this fact shall be indicated in a declaration immediately following the acknowledgements. There shall be an abstract of the thesis. The abstract shall follow the acknowledgement and declaration. For abbreviations not in common use a key shall be provided with the full term followed by the abbreviations in brackets.
- (3) The thesis shall be divided approximately into chapters, sections and subsections. The system of Headings should be consistent and should provide a clear indication of changes in content, emphasis and other features which occur at each stage of the work.
- (4) References cited in the text may be identified by numbers typed as superscript, or if on the line, in brackets, immediately following the relevant work or phrase in the text or by citing the author's name and the year of publication in round brackets immediately following the relevant work or phrase in the text (e.g. Sharma, 1982).

- (5) Appendices shall follow the main text. The style of the appendices shall be consistent with the style of the main text. The list of references should be arranged in accordance with the system of citation used. While using numbers typed as superscript the references should be listed in the order in which they are identified in the thesis whereas, while using round brackets they should be listed alphabetically by the author's surname. In both cases the list should enable the reader to identify the work cited and to locate the specific pages referred to. If bibliography is supplied it should be arranged in a logical order, for example in broad subject classes and within each class, alphabetically by author.
- (6) Illustrative material such as practical, diagrams, maps, illustrations, computer printout, published papers and tables shall have a binding margin of at least 1" and should, if possible, be bound in the thesis nearer the appropriate text. Illustrative material which cannot be conveniently bound in text (such as large maps, slides, sound or videotapes, cine films) shall be packaged in such a way that it can be bound with the thesis. If the amount of such material is substantial, it should be gathered into a „supplementary volume" and packaged in a rigid container similar in format to the bound thesis. Unbound material and its packaging shall both be marked with the author's name, initials and the degree for which the work is submitted in such a way that it can be readily linked with the thesis and it shall contain appropriate instructions for use.
- (7) The copies of the thesis shall be bound in cloth covered boards with leaves permanently secured. The front cover shall bear the title of the thesis, the name of the author, the name of the degree for which the thesis is submitted, the name of the respective Department and the year of submission. The spine of the thesis shall bear the name of the author, the degree for which the thesis is submitted and the year of submission. This information shall be printed along the spine in such a way that it is readable when the volume is lying flat with the front cover uppermost. If the thesis consists of more than one volume, the front cover of the spine shall also bear the number of each volume.
- (8) While submitting the thesis the research scholar shall indicate whether the work is based on discovery of new facts by the research scholar or of new relations of facts observed by others and how the work leads to the general advancement of knowledge. The research scholars shall further forward a statement indicating the sources from which information has been derived and the extent to which he/she has based his/her work on the work of others and shall indicate which portion or portions of his/ her thesis he/she claims to be original. Where a research scholar presents a joint work, he/she shall clearly state the portion which is his/her own contribution as distinguished from the portion contributed by his/her collaborator. This statement should be certified as correct by his/her research supervisor.

ANNEXURE – X

J D College of Engineering & Management, Nagpur, Maharashtra

Format for Submission of Ph.D. Thesis

Certificate: 1

This is to certify that Mr./ Ms.....
having Registration No....., from Department of
has done the prescribed course work on and he/she has
qualified the prescribed credit requirements. (Please attach a photo copy of
mark sheet)

Date :

Controller of Examination

Certificate: 2

This is to certify that Mr./ Ms.....
having Registration No. has paid all the fees (term fee, thesis
examination fees, convocation fee, alumni membership fee, etc.) as per the existing Ph.D.
rules. He/she has paid the retention fee (if applicable), till the submission of thesis.

Office Superintendent/Assistant Registrar
(Student Section) (Student Section)

Certificate: 3

This is to certify that Mr./ Ms.
having Registration No. has carried out his/her research work under
my guidance and supervision during the period to He/She has
prepared the thesis as per the instructions/guidelines given in the existing Ph.D.
rules/notification. It is further certified that this thesis does not include any work which
has previously been submitted for the award of any degree.

Signature of Supervisor

Signature of Supervisor

Certificate: 4

This is to certify that the Mr. /Ms. has submitted all the progress reports and given progress seminars as per the existing Ph.D. Rules/Notification

Date:

Registrar

Certificate: 5

Forwarding remarks of Head of the Department:

Date:

Head of the Department

Certificate: 6

I am herewith submitting _____ number of thesis copies, together with the certificates from the Student Section/ Examination Section/ supervisor / Registrar/ Head of the Department.

My address for communication is as follows:

_____ Pin _____

Phone: _____ Mobile: _____ E-mail: _____

Signature of the research scholar

To, the Controller of Examinations,
JDCEM, Nagpur, Maharashtra.

ANNEXURE – XI

J D College of Engineering & Management, Nagpur, Maharashtra

Report of Ph.D. Thesis Open Defense Committee (ODC)

We, the members of Defense Committee certify that the thesis entitled ‘.....

.....

.....

submitted by JDCOEM,
Nagpur in partial fulfillment of requirement of the Ph.D. degree in the Department of
..... under the faculty of Engineering and Technology/
Science/ Humanities has been examined by us and it is recommend that:

- a. The degree be awarded
- b. The research scholar be further examined on an another date not later than _____

(Note: Please strike out the clause which is not applicable)

Supervisor (Internal Examiner)

Supervisor (Internal Examiner)

External Examiner

Chairman of ODC

Date: _____

Place: _____

Forwarded to Controller of Examinations