



UNIVERSITY OF MUMBAI

INSTITUTE OF DISTANCE AND OPEN LEARNING (IDOL)

Dr. Shankar Dayal Sharma Bhavan, Vidyanagari, Kalina, Santacruz (E),
Mumbai-400 098.

48th successful years in
Distance Education

Providing Higher Education through
Distance mode since 1971



PROSPECTUS: FACULTY OF SCIENCE AND TECHNOLOGY
2019-2020

Visit: <http://mu.ac.in/portal/distance-open-learning/> & <http://idoloa.digitaluniversity.ac/>
Email: info@idol.mu.ac.in, idol.uom@groups.facebook.com, Twitter: @idol_uom,
SMS Service: 80828 92988

SECTION - ONE

1.1 THE UNIVERSITY OF MUMBAI:

The University of Mumbai (earlier known as University of Bombay) is one of the oldest and premier Universities in India. Established on 18th July, 1857, it is one amongst the first three universities in India, other being Calcutta and Madras universities. It is a University with Potential for Excellence Award accorded by the UGC.

The University has been reaccredited with 'A' grade by the NAAC.

University of Mumbai has five campuses (i.e. Fort campus (Main), Kalina, Ratnagiri, Thane and Kalyan). 742 affiliated colleges and 55 departments with an enrolment of more than 7 lakh Students are engaged in teaching-learning process. It has established its name in industrial collaboration and runs various professional programmes. The university is leading at national level in sports, cultural and other activities.

1.2 THE INSTITUTE:

The university started its correspondence education on 24th March 1971. It was known as "Directorate of Correspondence Programmes." In the year 1985 it was upgraded as "Directorate of Distance Education" which was further in 1993, upgraded as "Institute of Distance Education" (IDE). In the academic year 2008-09 the "The Institute of Distance Education" is now named as "INSTITUTE OF DISTANCE AND OPEN LEARNING" (IDOL). Since its inception IDOL has been giving high priority to human resource development by introducing various traditional Degree Programmes as well as Technical and Professional Programmes through distance mode.

University of Mumbai is the 7th University in the country which had started Distance Education Program in a conventional set up. Initially it started with the registration of 845 students which has grown up to a staggering figure of 76,495 (2016-2017) in the last academic year. Students are also doing well by topping the merit list of the university examination and have bagged Gold Medal in M.A. Sanskrit, M.A. Marathi and Chancellor's Medal in M.A. Hindi. There are a good number of students securing First Class B.A./B.Com. and M.A. / M.Com. Many students of IDOL have gone abroad for seeking higher education in the USA, UK, Australia, Canada, New Zealand etc. Many well known film personalities have been also enrolled in IDOL.

All Programmes offered by the Institute are approved by Distance Education Bureau, UGC, New Delhi.

1. Ratnagiri Subcentre

University of Mumbai at Plot No. P-61, MIDC, Mirjole, Ratnagiri. Students counselling guidance is available at this center.

2. IDOL learning centre at Thane Sub Campus

University of Mumbai at Balkum, Runwal Garden, Thane-Bhiwandi Road, Balkum Octroi Naka, Thane – 400 608. Students counseling / guidance is available at this center.

3. Proposed Kalyan Subcentre

IDOL is going to start its study centre at Kalyan soon in this current academic year 2017 – 18.

1.3 AIMS AND OBJECTIVES:

The main objectives of the Institute are:

1. To provide facilities of higher education to the working population, women and adults, who wish to upgrade their education or acquire knowledge in various disciplines.
2. To provide education for poor and such other people who cannot attend regular face to face class room teaching.
3. To help the students upgrade educational qualification for academic achievements in the process of lifelong education.
4. To develop education as a lifelong activity so that the individual can refresh his/her knowledge or can acquire knowledge in new areas.

1.4 VISION:

To position IDOL as a premier ODL institute responsive to emerging needs of learners by providing education for all.

To produce high quality graduates and contribute towards sustainable development of the university by supporting creation of excellence in teaching, learning and research.

1.5 MISSION:

The institute shall strive to promote innovative strategies for creation and dissemination of knowledge using available media and technologies so that university graduates acquire relevant capabilities to contribute with diligence to national development and global knowledge pool through their caliber, professionalism, value system and sense of service.

This will be achieved by providing high quality self learning materials with extensive learner support services and to take education to the unreached and promote community participation for local development.

1.6 SPECIAL FEATURES:

- The institute is presently located in its own building of about 77,000 square feet area with connectivity.
- Curricular contents, mode of examination and the degrees to be awarded are the same as applicable to the students of the colleges affiliated to the University of Mumbai.
- The learning process of the Institute is mainly through the medium of printed study materials.

- The audio-visual and electronic aids are being added in some subjects as a reference resource.
- The institute is also developing the Virtual Learning Class-rooms (VLC) facility for the students as an additional facility.
- The institute has an independent library and two reading rooms for the students.
- Fifty thousand books are available with a good number of journals of national and international repute.
- Guidance lectures (Personal Contact Programmes) are conducted every year at about 76 centers in Mumbai and around.
- Counseling to the students during office hours at Head quarters is given by the core faculty.

1.7 INSTRUCTIONAL SYSTEM:

The methodology of instructions at Institute of Distance and Open Learning of the University of Mumbai is different from that of the conventional university/college. Our system is more learner oriented in which the learner is an active participant in the teaching learning process.

IDOL follows the multimedia approach in instructions. It comprises:

1. Printed study materials are basically in English and wherever possible in Marathi also. The question- papers in the subject other than languages are printed in English with Marathi version. The students can write their answers in English, Marathi, Hindi or Gujarati if they indicate their choice for medium of answering in their Examination Form, if a student writes his /her answers in any language other than Marathi, Hindi, English and Gujarati, their answers will not be assessed and ZERO marks will be awarded. Students will have to collect their study materials from Room No.005 (Backside), ground floor, IDOL Building on Monday to Friday (11.00am to 5:00pm). However, for the students who are unable to make it, the study materials will be sent through post if he/ she makes a written request to the office along with the Xerox copy of Admission Form and complete postal address.
2. Face to face interaction with teachers and Counseling at IDOL by the core faculty is available between the times 3.00 p.m. to 5 p.m. from Monday to Saturday (excluding 2nd & 4th Saturday of every month and public holidays) in Room No. 106 A, IDOL.

NO CREDIT SYSTEM FOR IDOL STUDENTS

2. ADMISSION

2.1 ADMISSION SCHEDULE

Kindly check the admission schedule on the website <http://mu.ac.in/portal/distance-open-learning/>

2.2 ONLINE ADMISSION PROCEDURE:

From the academic year 2017-18, admissions to all programmes are done through online process. For details the students have to visit our website: www.mu.ac.in/portal/distance-open-learning/ & <http://idolooa.digitaluniversity.ac/> and follow the procedure given on the website.

2.3 PAYMENT OF FEES

The fees can be paid through any one of the following modes of payment:

1. Online payment option through Debit/ Credit Cards/ Internet Banking.

Attestation of Documents

The self-attested copies of documents/papers will be accepted.

It is made clear that if any false attestation / falsified record is detected, the student will be debarred from the University / institute and in addition a criminal case under relevant section of IPC (viz., 471, 474 IPC etc.) will be instituted against him/her.

2.4 COURSE WISE FEES:

Sr. No.	Course	Fees		
		Fees for General Category	Fees for Reserve Category	
1.	B.Sc. (I. T.) (Three Years)	F.Y.B.Sc. (I. T.)	Rs. 16925/-	Rs. 2485/-
		S.Y.B.Sc. (I. T.)	Rs. 17205/-	Rs. 2485/-
		T.Y.B.Sc. (I. T.)	Rs. 18455/-	Rs.2735 /-
2.	B.Sc. (Computer Science) (Three Years)	F.Y.B.Sc. (Computer Science)	Rs. 12675/-	Rs. 1435/-
		S.Y.B.Sc. (Computer Science)	Rs. 14655/-	Rs. 1435/-
		T.Y.B.Sc. (Computer Science)	Rs. 16905/-	Rs.1685 /-
3.	M.Sc. (Mathematics)	Part-I	Rs. 5915/-	Rs. 1930/-
		Part - II	Rs. 5240/-	Rs. 2180/-

4.	M.Sc.(Information Technology)	Part-I	Rs. 12515/-	Rs. 1930/-
		Part - II	Rs. 11740/-	Rs. 2180/-
5.	M.Sc. Computer Science)	Part-I	Rs. 12515/-	Rs. 1930/-
		Part - II	Rs. 11740/-	Rs. 2180/-
6.	M.C.A.	First Year	Rs. 16875/-	Rs. 3480/-
		Second Year	Rs. 16375/-	Rs. 3480/-
		Third Year	Rs. 15625/-	Rs. 3730/-

- **Document Verification Charges Rs. 400/- for those students who have passed their Board Examination from other than Maharashtra State Higher Secondary Certificate Board (Examination).**
- **Those Students are taking admission in IDOL from Affiliated Colleges of University of Mumbai shall pay Rs.100/- for Transference Certificate Fees.**
- **Eligibility Fees of Rs.220/- for the students who have passed their Examination from Maharashtra State University/ Board & Rs.320/- Other than Maharashtra State University/Board.**

SECTION - TWO

UNDER GRADUATE PROGRAMMES

1. B.Sc. Information Technology

1.1 OBJECTIVES OF THE PROGRAMME:

The B.Sc. Information Technology program was started with an aim to make the students employable and impart industry oriented training. The main objectives of the course are:

- To think analytically, creatively and critically in developing robust, extensible and highly maintainable technological solutions to simple and complex problems.
- To apply their knowledge and skills towards the employability and excellence in IT professional careers and/or to continue their education in IT and/or related post graduate programs.
- To be capable of managing complex IT projects with consideration of the human, financial and environmental factors.
- To work effectively as a part of a team to achieve a commonly stated goal.
- To adhere to the highest standards of ethics, including relevant industry and organizational codes of conduct.

1.2 TARGET GROUP OF LEARNERS:

Students who passed in HSC (XII) Science with Mathematics or equivalent can apply for this course.

Appropriateness of Program to be Conducted in Open and Distance Learning Mode to Acquire Specific Skills and Competence

The syllabus spanning three years covers the industry relevant courses. The students will be ready for the jobs available in different fields like:

- Software Development (Programming)
- Website Development
- Mobile app development
- Embedded Systems Programming
- Embedded Systems Development
- Software Testing Networking
- Database Administration
- System Administration
- Project Management
- Cyber Law Consultant
- GIS (Geographic Information Systems)
- IT Service Desk
- Security

1.3 COURSE AND ELIGIBILITY

Course and Eligibility	
B. Sc. [Information Technology] (Three Years)	
F.Y. B. Sc. (IT)	Student must have PASSED HSC (XII std.) with Mathematics & Statistics. (As per the Circular No. UG/67 of 2016/17) and (Ordinance No. 6302 & 6303)
S.Y. B. Sc. (IT)	Student must have PASSED in F.Y.B. Sc. IT or ATKT in OR have passed three years diploma from any recognized state and central board students should have passed in all subjects of F.Y. B.Sc. (IT) and failed not more 200 marks from University of Mumbai No. UG/235 of 2005.Sem –III The student is eligible for admission to Semester III if either the student passes Semester I & II OR the students fail in combination of theory and / or practical taken in Semester I or Semester II or together, where the total marks do not exceed 200. In Sem–IV, a student is eligible to be admitted to Semester IV irrespective of no. heads of failure in the Third Semester. However, the student has to clear Semester I and II in order to appear for Semester IV examination
T.Y. B. Sc. (IT)	Student must have PASSED in all subjects of F. Y. & S.Y. B. Sc. (IT) or equivalent examination of other universities. Students should have passed in all subjects of F.Y. B. Sc. (IT) and failed not more than 200 marks in SY B.Sc. (IT) from University of Mumbai. No. UG/235 of 2005. A student is eligible for admission to Semester V if either the student passes Semester III & IV, OR The student fails in a combination of Theory and / or practical taken in Semester III or Semester IV or together, where the total marks do not exceed 200, OR A student is eligible to be admitted to Semester VI irrespective of no. of heads of failure in the fifth Semester. The results of Semester VI should be kept in abeyance

	until the student clears Semesters III, IV and V in full.
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1.4 SUBJECTS:

F.Y. B. Sc. Information and Technology: - (Semester Pattern (w.e.f. Academic Year 2010-2011) with 80:20 Scheme of examination circular no. UG/ICD/2015-16/137)
(Study Material Available)

F. Y. B. Sc. I. T.		
	Sem- I	Sem- II
Paper No.	Paper Name	Paper Name
Paper 1	Professional Communication Skills (With Study Material)	Web Technologies (With Study Material)
Paper 2	Applied Mathematics-I (With Study Material)	Applied Mathematics-II (With Study Material)
Paper 3	Fundamental of digital Computing (With Study Material)	Microprocessors and Microcontrollers (With Study Material)
Paper 4	Electronics and Communication Technology (With Study Material)	Database Management Systems (With Study Material)
Paper 5	Introduction to C++ programming (With Study Material)	Digital Computer Networks (With Study Material)
S. Y. B. Sc. I. T.		
	Sem- III	Sem- IV
Paper 1	Logic and Discrete Mathematics (With Study Material)	Software Engineering (Softcopy available on the Website)
Paper 2	Computer Graphics (With Study Material)	Multimedia (With Study Material)
Paper 3	Advanced SQL (With Study Material)	Java and Data Structures (Softcopy available on the Website)
Paper 4	Object Oriented Programming using C++	Quantitative Techniques (Will be available soon)

	(Softcopy available on the Website)	
Paper 5	Modern Operating System (With Study Material)	Embedded Systems (With Study Material)
T. Y. B. Sc. I. T.		
Paper 1	Network Security (Softcopy available on the Website)	Internet Technologies (Softcopy available on the Website)
Paper 2	ASP.NET with C# (Softcopy available on the Website)	Digital Signals and Systems (With Study Material)
Paper 3	Software Testing (Softcopy available on the Website)	Data Warehousing (With Study Material)
Paper 4	Advanced Java (Softcopy available on the Website)	Elective-1 IPR and Cyber Laws Elective-2 Project Management (Softcopy available on the Website) Elective-3 GIS
Paper 5	Linux Administration (Softcopy available on the Website)	Project Report
Paper 6	-----	Project Viva-Voce

Note:

1. The 80%:20% pattern has been introduced for B.Sc. I.T. from the Academic year 2015-2016. (As per the Circular no.: UG/ICD/2015-2016/137)
2. For theory, per paper is of 100 marks: 80 marks out of 100 marks will be the External and 20 marks out of 100 marks will be the Internal.
3. For practical, per paper are of 50 marks: 40 marks out of 50 marks will be the External and 10 marks out of 50 marks will be the Internal. Please refer the Table- 1.2
4. There is no minimum passing for Internal Assessment.
5. Theory Internal Assessment is of online evaluation in the form of online quiz/objective types/test based on previous question papers.
6. Practical Internal assessment is based on problem solving ability and practical skills assessment during PCP.

1.5 STANDARD OF PASSING:

1. In 80:20 scheme of examination, every paper and practical is considered as separate head of passing.
2. Minimum passing marks required in every head is 40% (theory as well as practical).
3. To pass the theory examination, student must secure minimum 40 marks out of 100 marks. Please refer the Table- 1.
4. To pass the practical examination, student must secure minimum 20 marks out of 50 marks. Please refer the Table- 1.2

Table- 1.1 List of Papers (for theory) 80%:20%										
	Paper-1		Paper-2		Paper-3		Paper-4		Paper-5	
Maximum Marks (100 marks)	80	20	80	20	80	20	80	20	80	20
Minimum Marks	40% (40 marks)		40% (40 marks)		40% (40 marks)		40% (40 marks)		40% (40 marks)	

Table- 1.2 List of Papers (for practical) 80%:20%										
	Paper-1		Paper-2		Paper-3		Paper-4		Paper-5	
Maximum Marks (50 marks)	40	10	40	10	40	10	40	10	40	10
Minimum Marks	40% (20 marks)		40% (20 marks)		40% (20 marks)		40% (20 marks)		40% (20 marks)	

5. Project Viva-voce comprises of 100 marks; students are required to secure 40 marks out of 100 marks.
6. Project Report comprises of 100 marks; students are required to secure 40 marks out of 100 marks.

➤ **REQUIRED DOCUMENTS FOR THE ADMISSION OF THE UG DEGREE:**

Students have to scan and upload all the original documents required and also have to scan the Photo and Signature during the Registration process.

A. First Year B. Sc. (Computer Science/ Information Technology)

1. H.S.C. Marksheet.
2. Birth Proof.

B. Second Year B. Sc. (Computer Science/ Information Technology)

C. Documents required for the admission of the old students of IDOL

1. Original mark sheet of First Year and in case of more than one attempt
2. Student have to scan & upload first and last attempt mark sheet of First Year
3. Previous years Identity Card/Admission form.
4. Marriage Certificate/ Gazette Notification (particularly for female married students) in case if the student wish to change the name.

Documents required for the students from affiliated colleges of University of Mumbai

1. Original mark sheet of First Year and in case of more than one attempt student have to scan & upload first and last attempt mark sheet of First Year Semester pattern students have to upload their semester wise mark sheets.
2. Current year No Objection Certificate from the last attended college.
3. Marriage Certificate/ Gazette Notification (particularly for female married students) in case if the student wish to change the name.

D. Third Year B. Sc. (Computer Science/ Information Technology)

E. Documents required for admission of the old students of IDOL

1. Original mark sheet of First year & Second Year (In case of more than one attempt students have to Scan & upload first and last attempt mark sheet of the respective class)
2. Previous year's Identity Card/Admission form.
3. Marriage Certificate/ Gazette Notification (particularly for female married students) in case if the student wish to change the name.

Documents required for the students from affiliated colleges of University of Mumbai

1. Original mark sheet of First year & Second Year (In case of more than one attempt students have to scan & upload first and last attempt mark sheet of the respective class) Semester pattern students has to upload their marksheet semester wise.
2. Current year No Objection Certificate from the last attended college.
3. Marriage Certificate/ Gazette Notification (particularly for female married students) in case if the student wish to change the name.

➤ **INSTRUCTIONS FOR ELIGIBILITY CASE STUDENTS:-**

The students from CBSE, ICSE, DIPLOMA from MSBTE/other state, NIOS, HSC Boards other than Maharashtra State, IB, CIE, D.ED and Degree from other than University of Mumbai will have to obtain the Eligibility Certificate which will be issued online after approval from Eligibility Unit, Room No. 108 (A), Institute of Distance and Open Learning, Dr. Shankar Dayal Sharma Bhavan, Vidyanagari, Santacruz (E), Mumbai-400 098.

Migration certificate in original shall be submitted within 2 months from date of admission in respective Department of IDOL.

Equivalence certificate shall be submitted by the students wherever required.

Note:- The students who have passed 3/4yr Bachelor's Degree from other University and completed another degree course viz B.ED, L.L.B., MMS etc form college affiliated to University of Mumbai and wish to pursue M.A./M.COM/M.Sc./MCA from the University of Mumbai are required to obtain Eligibility Certificate from University of Mumbai, IDOL. Such students should submit their Eligibility 9 Confirmation letter from the earlier College / Institute affiliated to Mumbai University from where he / she has passed B.Ed. /LLB/ MMS / etc.

➤ **REQUIRED DOCUMENTS FOR OBTAINING ELIGIBILITY CERTIFICATE:**

1. S.S.C. and onwards all examination (F.Y., S.Y. & T.Y.)
2. Equivalent Certificate from MSBTE/Tech Board of the concern state (in case of diploma students)
3. Passing/ Convocation/ Degree Certificate
4. Marriage Certificate/ Gazette Notification (For female married students)
5. Migration / Transfer Certificate (shall be submitted within 2 months)

➤ **INSTRUCTIONS FOR ELIGIBILITY CASE:-**

The students from CBSE, ICSE, DIPLOMA FROM MSBTE/other state, NIOS, HSC Boards other than Maharashtra State IB, CIE, D.ED and Degree from other than University of Mumbai will have to obtain the Eligibility Certificate which will be issued online after approval from Eligibility Unit, Room No. 108 (A), Institute of Distance and Open Learning, Dr. Shanker Dayal Sharma Bhavan, Vidyanagari, Santacruz (E), Mumbai-98.

The student should download their Eligibility Form online after application for admission and submit the same alongwith two xerox copies of all marksheets, certificates and show all original certificates in **Room no. 108 (A), first floor, IDOL, University of Mumbai Kalina Campus. (11.00 am to 1.00 pm, 1.30 pm to 4.00pm)**

➤ **REQUIRED DOCUMENTS FOR OBTAINING ELIGIBILITY CERTIFICATE:**

1. S.S.C . and onwards all examination (F.Y., S.Y. & T.Y.)
2. Proof of Date of Birth
3. Migration / Transfer Certificate(Can be submitted after admission)
4. Passing/ Convocation/ Degree Certificate
5. Marriage Certificate/ Gazette Notification (For female married students)

POST GRADUATE PROGRAMMES

Master of Science (Information Technology)

4.1 ELIGIBILITY CRITERIA

M.Sc.IT Part 1	Student must have Passed B.Sc.IT/Comp.Sc./Maths/Physics/Statistics/Electronics or BCS or BE(in any branch)(As per the Circular No. UG/67 of 2016/17) and (Ordinance No.6302 & 6303)
M.Sc.IT Part 2	Student must have passed in M.Sc.IT Part 1(on before the commencement of M.Sc. IT Part- Exam.) Students will not be permitted to appear for M.Sc.IT Part 2 examination unless he/she has to passed the part 1 examination previously.

4.2 SUBJECT WISE MARKS DISTRIBUTION FOR M.SC.IT PART 1 AND PART 2

Two years Post Graduate Degree course with 80:20 scheme of examination
(Study Material Available)

Paper	Subject	Theory	Theory	Total Marks (Theory Paper)	Minimum Passing marks(Theor y)	Practical Marks	Passing Marks(Practical)
		Paper	Paper				
		Internal	External				
Paper 1	Computer Simulation and Modeling (Study Material Available)	60	15	75	30	50	20
	Programmi						

Paper	Subject	Theory Paper	Theory Paper	Total Marks (Theory Paper)	Minimum Passing marks(Theory)	Practical Marks	Passing Marks(Practical)
		Internal	External				
Paper 1	Software Testing (Study Material available)	60	15	75	30	50	20
	Information Security (Study Material available))						
Paper 2	Artificial Intelligence (Study Material available))	60	15	75	30	50	20
	Robotics (Study Material available))						
Paper 3	Elective-1 Intelligent Systems (Study Material available))	60	15	75	30	50	20
	Neural Networks and Fuzzy Systems						
Paper 4	Elective-2 Multimedia Systems and	60	15	75	30	50	20

	Convergence of Technology (Study Material available))						
	Java Technology (Study Material available))						
	Project					100	40

Note: .

In 80:20 Scheme of Examination, for every paper, there is an internal assessment of 20% of total marks (maximum marks) allotted for the paper (theory as well as for practical).

2. E.g. Paper 1 has maximum marks of 75 then for external assessment 60 and for internal assessment 15 marks are allotted. There are no minimum passing marks for the internal assessment.

3. Internal assessment is of objective type/test based on previous question paper.

4. Practical Internal assessment is based on problem solving ability and practical skills assessment during PCP.

4.3 STANDARD OF PASSING: -

In 80:20 Scheme of examination, every paper and practical is consider as separate head of passing.

2. Minimum passing marks require in every head is 40% (theory as well as in practical).

3. To pass the examination the student must secure minimum 30 marks out of 75 marks in each theory paper separately

4. For practical component, student needs to score minimum 20 marks out of 50 marks in each practical. 5. Project has 100 marks and student need to score minimum 40% marks for passing.

M.A/M.SC. (MATHEMATICS)

Part – I (Revised)

(There will be 5 Papers for Part – I, 500 Mark with 20 Marks Internal assessments per Paper)

Paper No.	Name of the Papers
Paper I	Algebra - I
Paper II	Analysis & Topology
Paper III	Complex Analysis
Paper IV	Discrete Mathematics & Differential Equations
Paper V	Set Theory, Logic & Elementary Probability Theory

Part – II (Revised)

(There will be 5 Papers for Part – II, 500 Mark with 20 Marks Internal assessments per Paper)

Paper No.	Name of the Papers
Paper I	Algebra - II and Field Theory
Paper II	Advanced Analysis II and Fourier Analysis
Paper III	Differential Geometry and Functional Analysis
Paper IV	Numerical Analysis
Paper V	Graph Theory

1. As per the M. Sc. (Maths) Class Improvement ordinance 0.2462 student has to appear for class Improvement within 5 years from the passing years. (Please see link http://archive.mu.ac.in/myweb_test/M.A.%20MSc.%20%28Maths%29%20Class%20Improvment%20Ordinance.pdf)

➤ **REQUIRED DOCUMENTS FOR THE ADMISSION OF THE PG DEGREE:**

Students have to scan and upload all the original required documents. Photo & Signature has also to scan during the Registration process.

M.A/M.Sc. (Mathematics), M.Sc. (I T), M.Sc. (Comp. Sci.) - I

Documents required for admission of the old students of IDOL

1. Original mark sheet of Third Year and in case of more than one attempt student should upload first and last attempt mark sheets of Third Year.
2. Previous year Identity Card/Admission form
3. Marriage Certificate/ Gazette Notification (for female married students) in case of change in name of the student.

Documents required for the admission of the students from affiliated colleges of University of Mumbai

1. Original mark sheet of Third Year and in case of more than one attempt student should upload First and Last attempt mark sheets of Third Year. In case of Semester Pattern the students have to upload their mark sheets Semester wise.
2. Marriage Certificate/ Gazette Notification (For female married students) in case of change in name of the student

A. M.A/M.Sc. (Mathematics), M.Sc. (I T), M.Sc. (Comp. Sci.) - II

Documents required for admission to the old students of IDOL

1. Original mark sheet of Part I and in case of more than one attempt the student should upload First and Last attempt mark sheets of Part I.
2. Previous year Identity Card/ Admission form
3. Convocation Certificate (Degree Certificate)
4. Marriage Certificate/ Gazette Notification (for female married students) in case of change in name of the student.

Documents required for the students from affiliated colleges of University of Mumbai

1. Original mark sheet of Part I and in case of more than one attempt the student should upload First and Last attempt mark sheets of Part I. Semester pattern students have to upload their mark sheets semester wise
2. Recent No Objection Certificate (NOC) from the last attended college.
3. Convocation certificate (Degree Certificate)
4. Marriage Certificate / Gazette Notification (For female married students) in case of change in name of the student

➤ INSTRUCTIONS FOR OBTAINING THE ELIGIBILITY CERTIFICATE APPLICABLE FOR

INSTRUCTIONS FOR ELIGIBILITY CASE STUDENTS:-

The students from CBSE, ICSE, DIPLOMA from MSBTE/other state, NIOS, HSC Boards other than Maharashtra State, IB, CIE, D.ED and Degree from other than University of Mumbai will have to obtain the Eligibility Certificate which will be issued online after approval from Eligibility Unit, Room No. 108 (A), Institute of Distance and Open Learning, Dr. Shankar Dayal Sharma Bhavan, Vidyanageri, Santacruz (E), Mumbai-400 098.

Migration certificate in original shall be submitted within 2 months from date of admission in respective Department of IDOL.

Equivalence certificate shall be submitted by the students wherever required.

Note:- The students who have passed 3/4yr Bachelor's Degree from other University and completed another degree course viz B.ED, L.L.B., MMS etc from college affiliated to University of Mumbai and wish to pursue M.A./M.COM/M.Sc./MCA from the University of Mumbai are required to obtain Eligibility Certificate from University of Mumbai, IDOL. Such students should submit their Eligibility Confirmation letter from the earlier College / Institute affiliated to Mumbai University from where he / she has passed B.Ed. /LLB/ MMS / etc.

➤ REQUIRED DOCUMENTS FOR OBTAINING ELIGIBILITY CERTIFICATE:

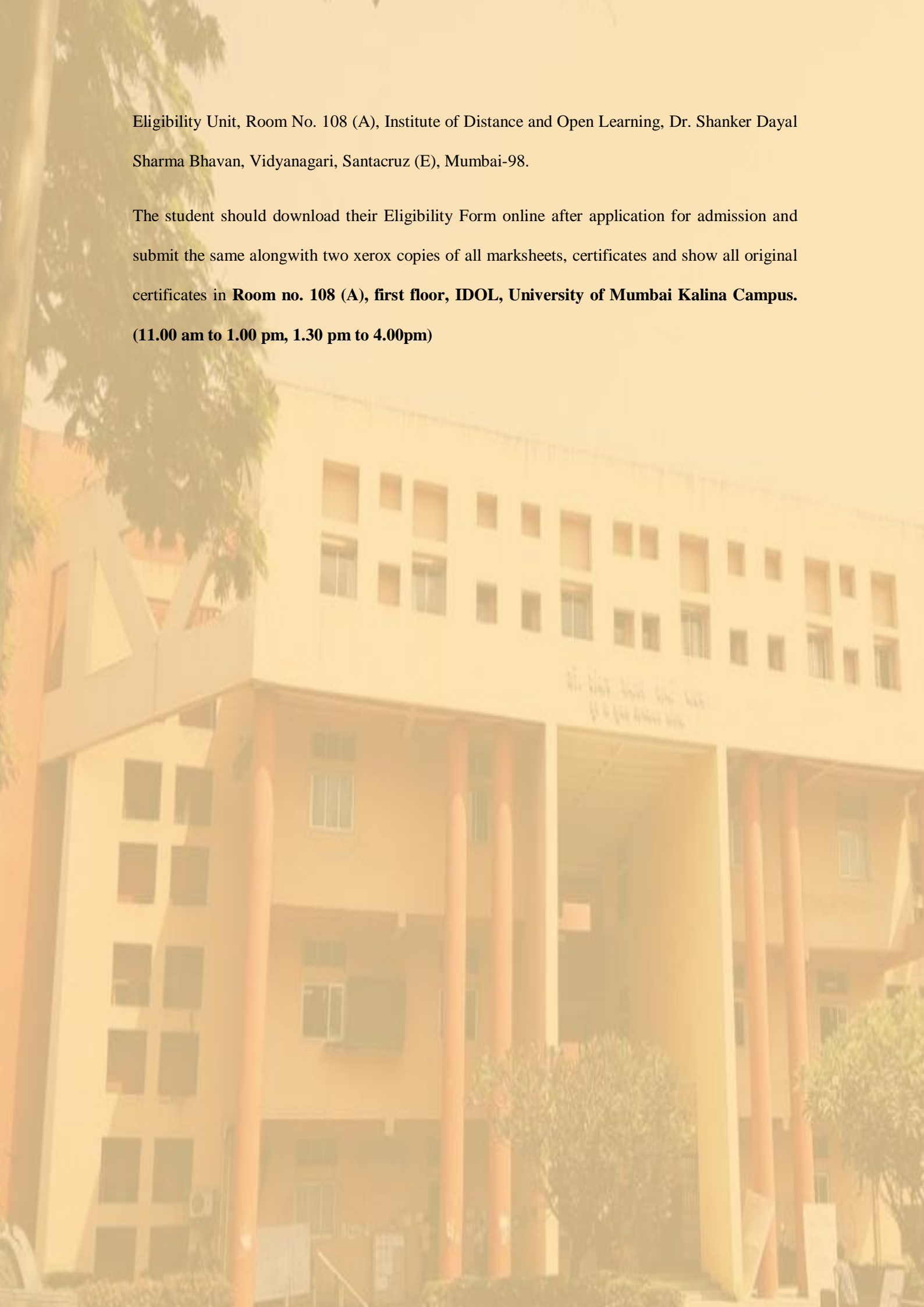
1. S.S.C. and onwards all examination (F.Y., S.Y. & T.Y.)
2. Equivalent Certificate from MSBTE/Tech Board of the concern state (in case of diploma students)
3. Passing/ Convocation/ Degree Certificate
4. Marriage Certificate/ Gazette Notification (For female married students)
5. Migration / Transfer Certificate (shall be submitted within 2 months)
6. S.S.C . and onwards all examination (F.Y., S.Y. & T.Y.)
7. Proof of Date of Birth
8. Migration / Transfer Certificate (Can be submitted after admission)
9. Passing/ Convocation/ Degree Certificate
10. Marriage Certificate/ Gazette Notification (For female married students)

➤ INSTRUCTIONS FOR ELIGIBILITY CASE:-

The students from CBSE, ICSE, DIPLOMA FROM MSBTE/other state, NIOS, HSC Boards other than Maharashtra State IB, CIE, D.ED and Degree from other than University of Mumbai will have to obtain the Eligibility Certificate which will be issued online after approval from

Eligibility Unit, Room No. 108 (A), Institute of Distance and Open Learning, Dr. Shanker Dayal Sharma Bhavan, Vidyanagari, Santacruz (E), Mumbai-98.

The student should download their Eligibility Form online after application for admission and submit the same alongwith two xerox copies of all marksheets, certificates and show all original certificates in **Room no. 108 (A), first floor, IDOL, University of Mumbai Kalina Campus.**
(11.00 am to 1.00 pm, 1.30 pm to 4.00pm)



M.C.A

5.1 OBJECTIVES OF THE PROGRAMME:

1. Produce skilled human resources with thorough knowledge which are employable in IT.
2. Impart knowledge required for planning, designing and building complex Application Software Systems as well as provide support to automated system or application.
3. Produce entrepreneurs who can develop customized solutions for small and large Enterprises.
4. To develop academically competent and professionally motivated personnel, equipped with objective, critical thinking, right moral and ethical values that compassionately foster the scientific temper with a sense of social responsibility.
5. To develop students to become globally competent.
6. To inculcate Entrepreneurial skills among students

5.2 TARGET GROUP OF LEARNERS:

1. The Program is designed and intended primarily to meet the needs of working professionals for knowledge learning and for those who wish to broaden and deepen their understanding.
2. MCA Program provides flexibility to the learner to continue their studies without compromising on quality of education and course content, as they are pursuing their professional work.
3. This group of students who opt for MCA through distance mode largely include working or self employed professionals in business, corporate companies and IT and IT enabled service industry.

Nevertheless, a good part of the enrolled students include fresh graduates who want to study at leisure or be engaged at some other profession.

5.3 ELIGIBILITY:

Students with any bachelor's degree from any university recognized by UGC in India and Mathematics as a subject at XII or higher level are eligible.

5.4 SUBJECTS

FIRST YEAR SEMESTER: I & II (Old Course)

Semester I						
S r. N o	Subject	Lectur e Hrs	Practi cal	Paper	Practi cal	Ter m Wo rk
1	Programm ing With	4 Hrs/W	3 Hrs/W	100 Marks/3	50	-

	C	week	week	hrs	Marks	
2	System Analysis And Design	4 Hrs/Week	1 Hr/Week	100 Marks/3 hrs	25 Marks	-
3	Computer Organization And Architecture	4 Hrs/Week	1 Hr/Week	100 Marks/3 hrs	25 Marks	-
4	Discrete Mathematics	4 Hrs/Week	1 Hr/Week	100 Marks/3 hrs	25 Marks	-
5	Principles Of Economics And Management	4 Hrs/Week	1 Hr/Week	100 Marks/3 hrs	25 Marks	-
6	Introduction To Web Technology	4 Hrs/Week	3 Hrs/Week	100 Marks/3 hrs	50 Marks	25 Marks

Semester II						
Sr. No	Subject	Lecture Hrs	Practical	Paper	Practical	Term Work
1	Data Structures	4 Hrs/Week	3 Hrs/Week	100 Marks/3hrs	50 Marks	25 Marks
2	Operating	4	3	100	50	25

	Systems	Hrs/W eek	Hrs/W eek	Marks/ 3hrs	Marks	Mar ks
3	Accounting And Financial Managem ent	4 Hrs/W eek	1 Hr/We ek	100 Marks/ 3hrs	-	25 Mar ks
4	Computer Graphics	4 Hrs/W eek	3 Hrs/W eek	100 Marks/ 3hrs	50 Marks	25 Mar ks
5	Probability And Statistics	4 Hrs/W eek	1 Hr/We ek	100 Marks/ 3hrs	25 Marks	
6	Communic ation And Soft Skills	4 Hrs/W eek	Tutori al -1 Hr/W eek	100 Marks/ 3hrs	-	25 Mar ks

N.B.: - ASSIGNMENT SUBMISSION

1. Students are required to submit their term works/assignments at their respective PCP centers.

SECOND YEAR M.C.A. SEMESTER III & IV

SUBJECTS

(With Study material)

Semester III						
S r · N o	Subject	Lectu re Hrs	Practic al	Paper	Practic al	Te rm W or k
1	Object Oriented	4 Hrs/W	3 Hrs/We	100 Marks/3	50	25 Ma

	Programm ing C++	week	ek	hrs	Marks	rks
2	Database Managem ent Systems	4 Hrs/W eek	3 Hr/We ek	100 Marks/3 hrs	50 Marks	25 Ma rks
3	Data Communi cation And Networkin g	4 Hrs/W eek	3 Hr/We ek	100 Marks/3 hrs	50 Marks	25 Ma rks
4	Operation s Research	4 Hrs/W eek	1 Hr/We ek	100 Marks/3 hrs	-	25 Ma rks
5	Software Engineeri ng	4 Hrs/W eek	1 Hr/We ek	100 Marks/3 hrs	-	25 Ma rks
6	Managem ent Informatio n Systems	4 Hrs/W eek	1 Hr/We ek	100 Marks/3 hrs	-	25 Ma rks

Semester IV

S r . N o	Subject	Lectu re Hrs	Pract ical	Paper	Pract ical	Term Work
1	Java Programmi ng	4 Hrs/W eek	3 Hrs/ Week	100 Marks/ 3hrs	50 Marks	25 Marks
2	Object Oriented Modeling And Design Using Uml	4 Hrs/W eek	3 Hrs/ Week	100 Marks/ 3hrs	50 Marks	25 Marks

3	Network Security	4 Hrs/Week	1 Hr/Week	100 Marks/3hrs	-	25 Marks
4	Advance Database Techniques	4 Hrs/Week	1 Hr/Week	100 Marks/3hrs	50 Marks	25 Marks
5	Elective I: Customer Relationship Management	4 Hrs/Week	1 Hr/Week	100 Marks/3hrs		25 Marks
6	Software Project Management	4 Hrs/Week	Tutorial -1 Hr/Week	100 Marks/3hrs	-	25 Marks

N.B.: - ASSIGNMENT SUBMISSION

1. Students are required to submit their term works/assignments at their respective PCP centers.

THIRD YEAR M.C.A. SEMESTER V & VI

SUBJECTS

(With Study material)

Semester V						
Sr. No	Subject	Lecture Hrs	Practical	Paper	Practical	Term Work
1	Software Testing	4 Hrs/Week	3 Hrs/Week	100 Marks/3hrs	50 Marks	25 Marks

2	Wireless Technology And Mobile Computing	4 Hrs/Week	3 Hrs/Week	100 Marks/3hrs	50 Marks	25 Marks
3	Distributed Computing	4 Hrs/Week	1 Hr/Week(Tutorial)	100 Marks/3hrs	-	25 Marks
4	Advanced Web Technologies	4 Hrs/Week	3 Hr/Week	100 Marks/3hrs	50 Marks	25 Marks
5	Elective – 2 Logistics & Supply Chain Management (Without Study Material)	4 Hrs/Week	3 Hr/Week	100 Marks/3hrs	-	25 Marks
6	Foreign Language (Without Study Material)					25 Marks

Semester VI	
	Total Mark
Project	150

N.B.: - ASSIGNMENT SUBMISSION

- 1. Students are required to submit their term works/assignments with respect to Sem.- V at their respective PCP centers.**
- 2. Students are required to submit their Project Black book with respect to Sem.-VI at their respective PCP centers.**

5.5 STANDARD OF PASSING M.C.A

To pass in the individual subject of each semester examination, a student must obtain a minimum 45 percent of the full marks in (a) theory paper and (b) term work, test and internal assessment separately of that subject.

Those of the students who obtained 45 percent of total marks obtainable in each theory paper, term work, test, class work and internal assessment, as the case may be, taken separately shall be declared to have passed the semester examination. A student who fails in an examination but has passed in any of the subjects of that examination may at his option be exempted from reappearing for the same at a subsequent attempt and will be declared to have passed the relevant semester examination when he has passed in the remaining subjects.

Standard of passing M.C.A. Semester VI

0.2664: A student who has passed these semesters III / IV examination and has satisfactorily completed the course for semester V will be permitted to enter upon the course for semester VI. Such a student will not be permitted to appear for semester VI examination unless he has passed semester III/ IV previously.

0.2665: A student who has appeared simultaneously for semester V and semester VI examination and has failed to pass semester V examination but has, however, obtained to passing marks in all the subject of semester VI examination of Third Year examination for the degree of Master of computer Application will not be declared to have passed semester VI examination unless he passes semester V examination in accordance with 0.213.

In order to be eligible for a class, the student must appear and pass each semester examination in not more than two sittings, further the student shall pass all the six semester examination in not more than nine semesters after registration for the course.

Award of the classes

Those students who obtain (i) 60 percent of marks on the aggregate of the First Year, Second Year and Third Year examination taken together will be placed in the First Class, (ii) 70 per cent marks on the aggregate will be declared to have passed the examination with first class with Distinction and (iii) 50 per cent marks on the aggregate will be declared to have passed the examination in the Second Class.

5.6 SUBMISSION OF M.C.A. ASSIGNMENTS

1. **Students are required to submit their respective term works, assignments at their respective PCP centers.**

Documents required: Students should scan & upload all the required documents in Original.

Photo & Signature has to be scanned during the Registration process First Year: - M.C.A

Documents required for admission to the old students of IDOL

1. Original mark sheets of Third year of Degree examination and in case of more than one attempts student should upload first and last mark sheet of the respective class.
2. Mark sheet of HSC or Equivalent
3. Marriage Certificate/ Gazette Notification (for female married students) in case of name change of the student
4. Birth Proof (LC/AADHAR CARD)

5.7 DOCUMENTS REQUIRED:

Photo & Signature has to be scanned & uploaded during the Registration process

Second Year: - M.C.A

Documents required for admission to the old students of IDOL

1. Original mark sheets of First year and in case of more than one attempts student should scan & upload first and last mark sheet of the respective class.
2. Previous year Identity Card.

3. Convocation Certificate
4. Marriage Certificate/ Gazette Notification (for female married students) in case of name change of the student.

Documents required:

**Photo & Signature has to be scanned & uploaded during the Registration process
Third Year: - M.C.A**

Documents required for admission to the old students of IDOL

1. Original mark sheet of First year & Second Year (In case of more than one attempts student should scan & upload first and last mark sheet of the respective class)
2. Previous years Identity Card.
3. Convocation Certificate
4. Marriage Certificate/ Gazette Notification (for female married students) in case of name change of the student.

Documents required:

Documents required for admission for the students of other universities (Applicable only for MCA First Year)

➤ **INSTRUCTIONS FOR ELIGIBILITY CASE STUDENTS: -**

The students from CBSE, ICSE, DIPLOMA from MSBTE/other state, NIOS, HSC Boards other than Maharashtra State, IB, CIE, D. ED. and Degree from other than University of Mumbai will have to obtain the Eligibility Certificate which will be issued online after approval from Eligibility Unit, Room No. 108 (A), Institute of Distance and Open Learning, Dr. Shankar Dayal Sharma Bhavan, Vidyanagari, Santacruz (E), Mumbai-400 098.

Migration certificate in original shall be submitted within 2 months from date of admission in respective Department of IDOL.

Equivalence certificate shall be submitted by the students wherever required.

Note: - The students who have passed 3/4yr Bachelor's Degree from other University and completed another degree course viz. B. ED., L.L.B., MMS etc. from college affiliated to University of Mumbai and wish to pursue M.A./M.COM/M.Sc./MCA from the University of Mumbai are required to obtain Eligibility Certificate from University of Mumbai, IDOL. Such students should submit their Eligibility 9 Confirmation letter from the earlier College / Institute affiliated to Mumbai University from where he / she has passed B.Ed. /LLB/ MMS / etc.

➤ **REQUIRED DOCUMENTS FOR OBTAINING ELIGIBILITY CERTIFICATE:**

1. S.S.C. and onwards all examination (F.Y., S.Y. & T.Y.)
2. Equivalent Certificate from MSBTE/Tech Board of the concern state (in case of diploma students)
3. Passing/ Convocation/ Degree Certificate
4. Marriage Certificate/ Gazette Notification (For female married students)
5. Migration / Transfer Certificate (shall be submitted within 2 months)

SECTION-THREE

RULES, REGULATIONS, SERVICES AND FACILITIES

1.1 INSTRUCTIONS TO SCHOLARSHIP STUDENTS

1. The students who are applying for Post Matric Scholarship should first apply for admission through this website: <http://mu.ac.in/portal/distance-open-learning/>
2. Those student who will be opting for GOI Scholarship Schemes are required to visit at Room No. 108-A, IDOL, Dr. Shankar Dayal sharmaBhavan, Kalina Campus, Vidhyanagari,Santacruz (E), Mumbai- 400 098.between 11 am to 3.30 p.m. along with mandatory documents as mentioned below:
 - Students should carry all Original Documents for Verification purpose. (Compulsory) at Room No- 108 A, IDOL.
 - One set of self-attested Xerox copies of Admission form along with all necessary documents required for scholarship. (*Please see Annexure – A, List of Documents* for SC/DT/NT/OBC/SBC)
 - Thereafter they should apply for Scholarship (for SC/DT/NT/OBC/SBC) through the website of Department of Social Justice & Special Assistance <http://mahadbt.gov.in>
 - And in case of ST Category students they should apply for Scholarship/*freeship to E-Tribal Department on their website: <http://etribal.maharashtra.gov.in> (*Please see Annexure – B, List of Documents*)
 - Freeships subject to clearance from E-Tribal Department.

Online GOI Post Matric Scholarship Scheme 2018-19
SC/OBC/DT(VJ)/NT/SBC

All the Following documents must be attested or self-attested for GOI Scholarship Scheme 2018-19.

- 1) Aadhar Card.
- 2) S.S.C. Mark sheet.
- 3) Caste Validity Certificate for M.C.A. Students only.
- 4) Caste Certificate.
- 5) Father's Income Certificate from Tahsildar. (Income Period: -2017-18).
* in case of Married Women Husband Income Certificate
- 6) Last Year's Mark sheet.
- 7) Gap Certificate (on ₹100/- Stamp paper)* in case of gap in Education.
- 8) Ration Card.(Front & Back Side)
in Case Name of Student in other relative Ration card, Affidavit required on ₹100/- Stamp paper.
- 9) Father/Mother Death Certificate (in case of death).
- 10) Marriage Certificate/ Gazette Certificate (for name defer).
- 11) Bank Account no. of any Nationalized bank (own saving Account)
- 12) Printout of Online scholarship from (Social Welfare Dept.)
- 13) Domicile Certificate.

Income Limits for various Caste.

(As per Social Welfare Dept's Circular no. स. आ/म ./भासश-शिर्षि-पु /२०१३-१४/१९९७,दि.
२२/०७/२०१३)

SC: - up to ₹2,00,000/-

OBC/DT (VJ)/NT/SBC: - up to ₹1,00,000/-

(Submit all documents in Scholarship Section IDOL, 108-A from Monday to Friday 11. 00 am to 3.30 pm.)

**Online GOI Post Matric Scholarship/ Freeship Scheme 2018-19 Tribal
Development Department (ST Caste)**

**All the following required documents must be attested or self-attested for GOI
Scholarship/Freeship Scheme 2018-19.**

- 1) Aadhar Card.
- 2) S.S.C. Mark sheet.
- 3) Caste Certificate.
- 4) Caste Validity Certificate for M.C.A. Students only.
- 5) Father's Income Certificate from Tahsildar. * in case of Scholarship (Income Period: - 2017-18).
Father's Income Certificate from Tahsildar or Form no.16

* in case of Freeship (Assessment Year 2018-19)

* in case of Married Women Husband Income Certificate

- 6) Last Year's Mark sheet.
- 7) Gap Certificate (on ₹100/- Stamp paper)* in case of gap in Education.
- 8) Ration Card.(Front & Back Side)

*in Case Name of Student in other relative Ration card, Affidavit required on ₹100/- Stamp paper.

- 9) Father/Mother Death Certificate (in case of death).
- 10) Marriage Certificate/ Gazette Certificate (for name defer).
- 11) Bank Account no. of any Nationalized bank (own saving Account)
- 12) Leaving Certificate.
- 13) Printout of Online scholarship from (eTribal Dept.)
- 14) Domicile Certificate.

Income Limits for ST Caste.

(As per Tribal Development Deptt.'s circular no. क् र. सं कीर् -ण
२०१३,प् र.क् र. ४२, का. (३) दनिं क :- ११ ज

Scholarship: - up to 2,50,000/- Freeship: - Above 2,50,000/-

(Submit all documents in Scholarship Section IDOL, 108-A from Monday to Friday 11. 00
am to 3.30 pm.)

1. Fresh/New Students are eligible to appear for the university examination only after satisfactory completion of one academic year.
2. Students are permitted to write their answers in English, Hindi, Marathi, and Gujarati if they indicate their choice in the examination form. However, the question papers will be printed in English with only Marathi Version.
3. In case Students do not appear or appear and fail or ALLOWED TO KEEP TERMS for the examination of higher class (awarded ATKT), can appear as an Ex-Student/Repeater in the Second Half (October-November) examination. For this they are required to make enquiries in the month of July for filling in the Examination Form.
4. As an Ex-Student/Repeater if he/she wish to appear for the Feb/ March/ April examination of the next subsequent calendar year he/she is required to make enquiries in the month of December for submission of the examination forms.
5. The IDOL does not send any information to its Ex-Students/Repeaters.
6. The time-table of the examination will be put-up on IDOL Notice Board about 10 days before the date of commencement of the respective examination. The information regarding the examination, seat numbers and the hall ticket and the centre of the examination will be available about 4 days before the commencement of the examination, provided the same are received in time from the Controller of Examinations.
7. Documents required for filling in examination forms.
 - i) Identity Card of IDOL
 - ii) Statement of Marks of previous attempt with Xerox Copies.

Refund of Examination Fees

The Rules presently in force relating to refund of examination fees are as follows

1. Where a student expires in the period of the examination, the entire fee shall be refunded.
2. Where a student falls ill subsequent to the submission of his /her application for admission to the examination and is prevented on medical grounds from appearing at the examination, 50% of the fees shall be refunded to him /her provided an application of such refund, supported by a medical certificate, is submitted to the Professor-cum-Director of the Institute before three days from the date of commencement of the examination.

(Note : By the expression “date of commencement of the examination” is meant the date on which the first paper at the examination is set and not the date on which the student has to appear for his/her first paper. It is necessary that the application for refund should invariably be submitted through the Professor- cum-Director of the Institute. The amount, where refund is granted will be disbursed to the Student concerned through the Finance & Accounts section IDOL.

Transfer Certificate and Migration Certificate:

Whenever a Student who desires to leave the Institute either before completing the course for which he/she has been admitted or after completing the course, will be required to take the following certificate from the Institute/University:

1. For seeking admission in another institution/college affiliated to this University, a Transference Certificate from the IDOL by paying the prescribed fees of

Rs.100/- and applying on the prescribed application form with the necessary documents. (UG/108g1999 Date :- 15/03/1999)

2 For seeking admission in other Universities within the country or abroad, the Student is required to obtain Migration Certificate by submitting an application in a prescribed form, from the Migration Certificate Section of the IDOL, University of Mumbai, which is situated in IDOL, Vidyanagari, Kalina, Santacruz (East), Mumbai 400 098.

The Migration Certificate Form, along with a Demand Draft for Rs.220/- drawn in favour of the Finance and Accounts Officer, University of Mumbai should be submitted in the office of the Asstt. Registrar (Administration), Institute of Distance and Open Learning. Before submitting the application for Migration Certificate, he/she should obtain a Transference Certificate from the Institute of Distance & Open Learning by filling the required form, along with the fees of Rs.100/- in cash from Monday to Friday from 11.00 a.m. to 2.30 p.m. excluding lunch break from 1.00 p.m. to 1.30 p.m.

The prescribed form/s for obtaining above mentioned certificates will be available in the office of the IDOL.

Admission on Fake Certificates:

If any document submitted by the student at the time of any course at any admission centre and found false and fake then the admission will be cancelled instantly and the matter will be reported to police for further necessary action.

Admission Validity:

The admission is valid for a period of 5 years only for the approved students from the date of admission after which she/he has to take a fresh admission to any course of the institute. Student must insure that he/she should get admission approval within the current academic year. If any student's does not receive any confirmation SMS/Email from IDOL office, he/she should immediately contact to the concern section of IDOL.

Convocation and Other certificates:

The Students who have completed the course (i.e. who have passed their degree exam from the University, they will get their degree certificate after the Convocation. Enquiries in this regard may be made with The Deputy/Asstt. Registrar, Examination Section, University of Mumbai, Mahatma Jyotirao Phule Bhavan, Examination House, Vidyanagari, Santacruz (East), Mumbai 400 098 on Degree Examination of working days during office hours. Similarly, for duplicate copies of Statement of Marks, Passing Certificate or Degree Certificate, of Graduate examinations, the students have to apply in the prescribed form (during the money transaction hours) at the M. J. Phule Bhavan, Examination House, Accounts Section, Vidyanagari, Santacruz (East), Mumbai 400 098.

**Standard of Passing (B. Sc. IT): Circular No. UG/235 of 2005
R. 4411:- Passing Standards:**

1. A student is said to have passed if he/she secures 40% of marks allotted in each head of passing.
Theory of 100 marks and TW/Practical/Tutorial of 50 marks are treated as separate heads of passing.
2. A student is said have passed Semester I if the student passes in all heads of passing of the Semester.
3. A student is eligible to be admitted to Semester II irrespective of no. of heads of failure in the First Semester.
4. A student is eligible for admission to Semester III if either the student passes Semester I & II

OR

The student Fails in a combination of Theory and/or Practical taken in Semester I or Semester II or together. Where the total marks do not exceed 200.

5. A student is eligible to be admitted to Semester IV irrespective of no. heads of failure in the Third Semester. However, the student has to clear Semester I and II in order to appear for Semester IV examination.
6. A student is eligible for admission to Semester V if either the student passes Semesters III & IV.

OR

The student fails in a combination of Theory and/or Practical taken in Semester III or Semester IV or together, where the total marks does not exceed 200.

7. A student is eligible to be admitted to Semester VI irrespective of no. of heads of failure in the fifth Semester. The results of Semester VI should be kept in abeyance until the student clears Semesters III, IV and V in full.
8. The class in awarded Semesters-wise for Semesters I, II, III and IV. However, Semester V and VI will be taken together for award of class i.e. in the Final Year.
 - Award of class is based on passing in all theory papers at one sitting.
 - Passing in parts will be awarded Pass Class irrespective of the Cumulative percentage of marks.
 - Distinction is awarded for 75% and above.
 - First Class is awarded for 60% and above but below 75%.
 - Second Class is awarded for 50% and above but below 60%.
 - Pass Class is awarded for all below 50%
9. There will be one repeat examination (for Semester I, II, III and IV) for those who have failed of remained absent. The absent students will be allowed to appear for the examination by the head of the institution after following the necessary procedure. This examination will be held 30 days after the declaration of results but not later than 60 days.

10. The candidates who are repeaters the B. Sc. (I.T.) examination shall be granted exemption from Reappearing in term work, project and viva-voce they have secured minimum marks required for passing in these heads at their previous examinations. Further that the amended R.4411 relation to the B.Sc.(IT) examination has been brought into force with effect from the examination held in the first half of 2005.

Standard of Passing for M.A./M.Sc. (Maths) examinations (Part – I and II) R.1967:

Students shall be required to obtain 40 percent marks in each paper/practical of the part Examinations and 40 percent of the aggregate at each of the Part Examinations of the branches.

Those of the successful student who pass Part I and Part II examinations and obtain minimum of 60 percent of the total marks, will be placed in the First Class and those obtain minimum of 50 percent in Second Class.

Improvement of Class (M.A./M.Sc. (Maths))

O. 2260 : Students who have passed the M.A./M.Sc.(Maths) degree examination of this University either by papers or by dissertation with the class mentioned below in Column 1 and who desire to improve their class or percentage as shown in Column 2 will be permitted to appear again for the same subject/s in both the parts simultaneously without being required to keep any terms within a period of five years, following the April or October examination at which they pass under provision of 0.2260.

Column 1	Column 2
Pass Class	(a) Second Class or at least 55 per cent marks or First Class
Second Class	(b) At least 55 per cent marks or First Class

If students who reappear for the two year M.A./M.Sc.(Maths) Degree examination under the provisions of this ordinance fail to improve their class, their performance at such reappearance will be ignored.

SELF STUDY TECHNIQUES

Since this programme is offered through Distance Education mode, it is quite likely that some of you may be wondering how to complete the programme successfully

It should not be difficult for you to complete the course if you plan your work schedule carefully. If you practice somewhat systematic way of studying the print materials, much of your job will become easy. We shall give you a few suggestions to make your studies easy and interesting.

We understand that you have many domestic and social commitments to attend to. Most of you are working in some schools, colleges or other institutes or work places. You may not have ample of time for studying. But it is possible to have some time regularly for your studies. Convince your colleagues and family members that you need some privacy to study and stick to a regular time table. As soon as you receive the study materials start-working on it and don't postpone studying the materials or writing your assignments/responses.

We suggest, you should know the techniques of self study. Your study materials contain a lengthy reading list for reference purpose and for deeper understanding of the content. One strategy that gained wide acceptance is the SQ3R technique;

SQ3R stands for the initial letters of the five steps in studying text. The five steps are: (i) Survey (ii) Question (iii) Read (iv) Recall (v) Review

Survey

Survey refers to the quick glance through the title page, preface, chapter headings, etc. of a text book. Surveying a text helps the Students grasp the main ideas. A glance at the title page may give you.

(i) The general subject area (ii) the level of approach (iii) the author's name and (iv) the date and place of publication

Preface helps you decide whether or not the book deserves your attention. Contents tell you what topics the author is dealing with and how he has organized the themes. An index survey will tell you instantly whether or not the text contains what you need. It also helps you save time and efforts by directing you straight to the relevant pages.

Question

Your survey of the text will raise in you some questions. For example, glancing at the title page, preface and contents, you might ask yourself:

How far can I depend on this book?

Will the book be helpful to me as its preface suggests?

Why should the author devote a whole chapter for such and such topic?

Having made your survey and started to question, you are now ready for reading the text.

Read

Reading a text material demands a critical mind. When we read a text, we apply our mind with all its critical skills. Unless we read actively the questions which have been formulated cannot be answered satisfactorily.

It is not advisable to make notes at this stage.

This is not the stage to underline words or phrases either.

Keeping these two points in view, what perhaps, we can do at the first reading is just to look for the main ideas and the supporting details.

Recall

Reading a text is not the final step in learning. It is, instead, the first step in learning. What is read needs to be recalled for intention. Regular attempts to recall will help improve our learning in three ways (i) better concentration (ii) chance to remedy misinterpretation and (iii) reactive reading. How often to recall chiefly depends on „how good“ a reader you are.

Review

The purpose of reviewing is to check the validity of our recall. The best way to do this is to do a quick repeat of the other four steps i.e. Survey, Question, Read and Recall.

Although the steps of SQ3R are in the logical and natural order there may be overlapping and repetitions between them. Since Distance Learning Students have to work on their own most of the time during their academic career, in this situation, study skills become very important.
