# Department
# of
# Computer
# Science
# &
# Information
# Technology

Department of Computer Science
& Information Technology

**Prof. Varun Sahni**
Vice-Chancellor

# MESSAGE

I am pleased to learn that the Post-graduate Department of Computer Science and Information Technology, University of Jammu is bringing out Admission Brochure for MCA admissions for the session 2010-11.
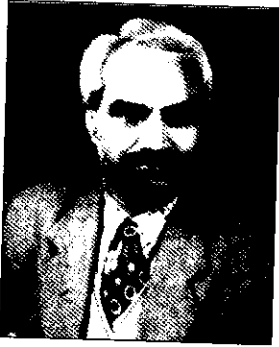
The University of Jammu is one of the India's premier research and teaching Institutions, and has been rated by NAAC as an 'A' Grade University. The University of Jammu has recently made tremendous progress in various fields whether it be academic, sporting or cultural activities. The Department of Computer Science and Information Technology is one of strong Components of the University.

I send my greetings and good wishes on the occasion.

**Prof. Varun Sahni**

**Prof. R.D. Sharma**
Dean Academic Affairs

# MESSAGE

It gives me immense pleasure to know that Department of Computer Science & Information Technology is bringing its Admission Brochure for the admission to MCA Course in the Session 2010-11. The Department is one of the best in the University, equipped with latest and sufficient Hardware and Software facilities. The Department has excellent placement achievements that the pass-out students have been placed with good pay packages in national and multinational companies in India and Abroad. The faculty of the Department is rich in technical knowledge and courses have been designed according to the need of the industry.

I am sure that the Department will provide necessary technical training and the skills to the students in reputed companies.

I extend my best wishes to all the candidates who desire to seek admission in the department.

**Prof. R.D. Sharma**

**Dr. P.S. Pathania**
Registrar

# MESSAGE

I am glad to know that the Department of Computer Sc. & IT is bringing out the Admission Brochure for the session 2010-2011.

The Department of Computer Science is running 3 years Master Degree Course in Computer Applications with latest hardware/software facilities like Multimedia, LAN UNIX, Visual Software, Oracle etc. The Departmental library has wide range of books with latest editions on all current topics. The students from the earlier batches of the MCA Course are working in various Organisations/Institutions throughout the country and abroad.
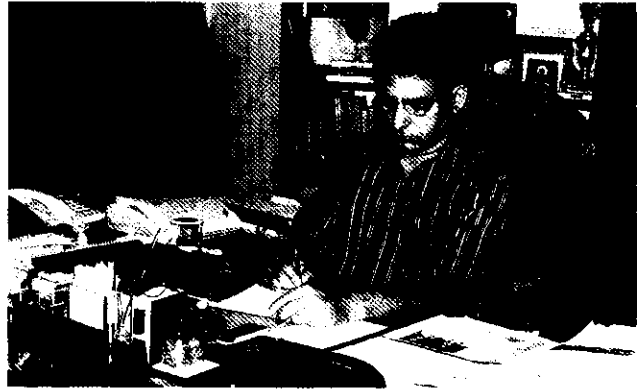
I am confident that in the existing environment and due to the hard work of teaching faculty the students who will be admitted to this course will acquire the qualities of leadership, dynamism, professional excellence and knowledge of the latest trends in the field of computer applications.

I extend my best wishes to all those candidates who will be applying for this course.

**Dr. P.S. Pathania**

**Prof. Devanand**
Head, Computer Science & IT



# MESSAGE

This admission brochure for MCA admission for the Session 2010-11 is being brought out from the Dept. of Computer Science & Information Technology, University of Jammu, Jammu with a great sense of pride and confidence. It stems from the fact that this Department has come a long way since its modest beginning in 1987. This is evident from the excellent placements and performance records of students of almost all the batches which have passed out since the inception of the Department.

The Department offers three years Master's degree in Computer Application covering all the latest trends both theoretical and practical. The dedicated faculty is ready to go all the way to help the students in all their academic endeavours. I say it with utmost confidence that every student entering this Department will receive the best training in the field of Computer Science & Information Technology.

I extend my best wishes to the applicants.

**Prof. Devanand**
Head of the Department

# Faculty Profile



Prof. Devanand (HOD)
Professor M.Sc., M.Phil., Ph.D.



Dr. Vibhakar Mansotra
Associate Professor
M.Sc., M.Phil., PGDCA,
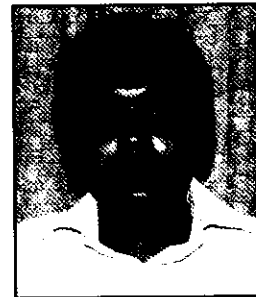M.Tech.(IIT Delhi), Ph.D



Dr. Vinod Sharma
Associate Professor
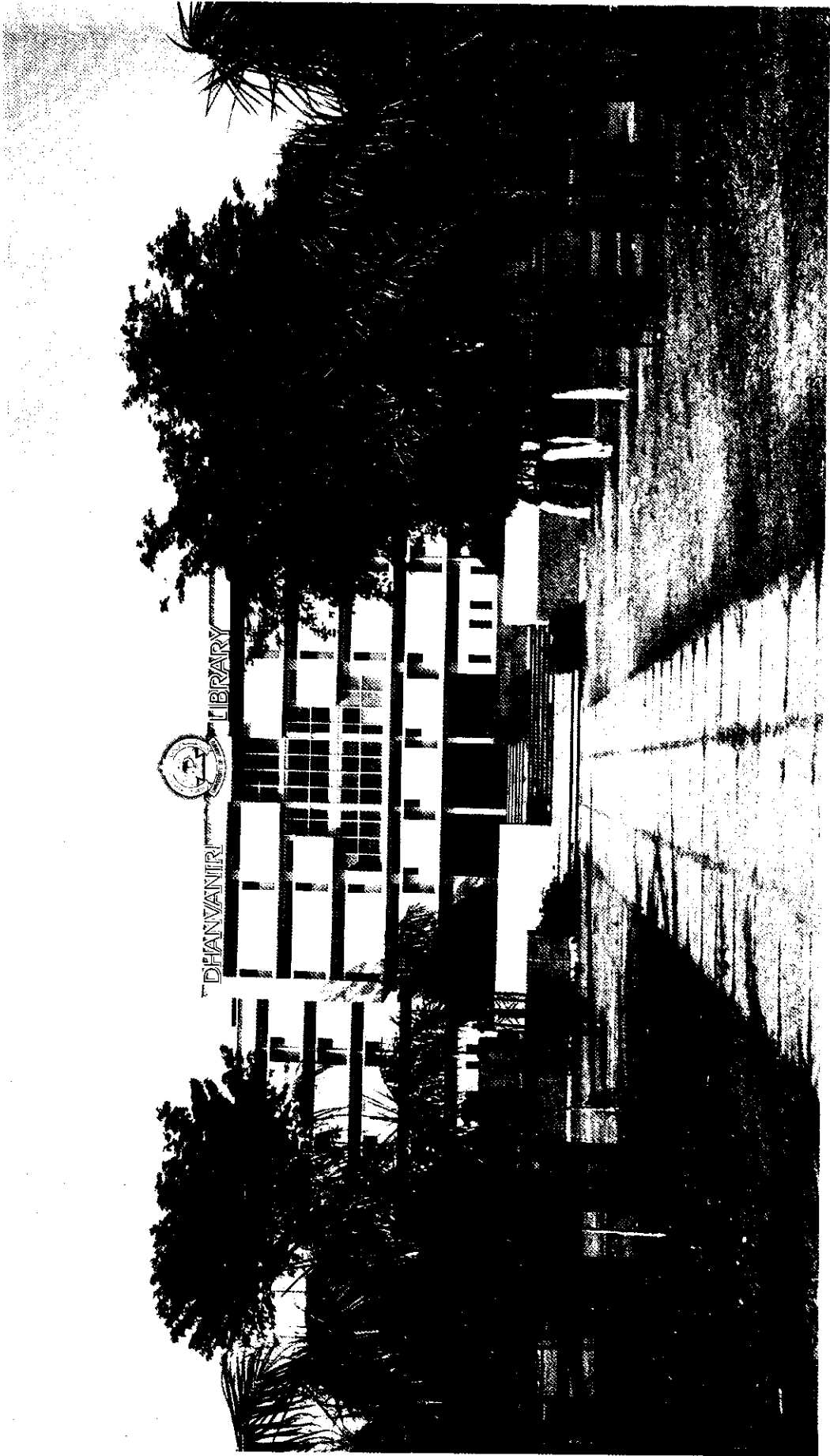M.C.A., Ph.D.



Dr. Lalitsen Sharma
Associate Professor
M.Sc., MCA, Ph.D



Dr. Pawanesh Abrol
Assistant Professor (Selection Grade)
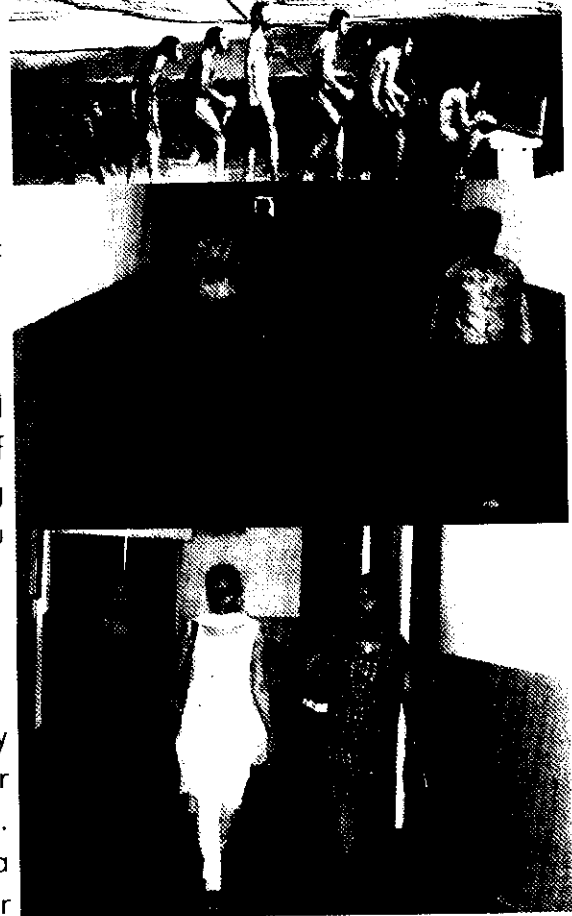M.Tech., MBA, Ph.D.



Mr. Jasbir Singh
Assistant Professor MCA

# Contents

## 0.0 COMMON ENTRANCE TEST -MCA ADMISSION 2010-11

The Common Entrance Test for MCA Admission, Session 2010-11 will be held on June 19, 2010 (Saturday) for P.G. Department of Computer Science & IT University of Jammu, Bhaderwah Campus, Ram Nagar Study Centre, Govt. Degree College, Rajouri and Some Private Colleges affialiated to University of Jammu. The list of these colleges will be provided at the time of counselling.

Admission for MCA Course in the University of Jammu shall be held as per the MCA statutes and general regulations of the University of Jammu, Jammu. This bulletin contains information regarding admission for MCA Course (2010-11) in the University of Jammu only.

### Application form :

Candidates appearing in Common Entrance Test must apply through the Application Form issued by the PG Dept. of Computer Science and IT or any other centre duly notified by the department. The forms shall be available at the cost of **Rs. 700/-** through a Bank Draft drawn in favour of Head, PG Department of Computer Science & IT, University of Jammu, payable at Jammu. The candidates applying under payment category shall have to pay **Rs. 200/-** through a bank draft, payable at Jammu in favour of the Head, Dept. of Computer Science & IT duly attached with the application form.

The application forms can be downloaded from the Jammu University website : www.jammuuniversity.in and can be submitted to the Head, Department of Computer Science & IT along with the requisite bank draft till the last date.

### Test Venue :

The Common Entrance Test for MCA Admission shall be held at Jammu. The detail of the centre will be intimated through admit cards.

# 1.0 MCA ADMISSION 2010-12 UNIVERSITY OF JAMMU, JAMMU.

## 1.1 BRIEF PROFILES OF

### (i) P. G. Department of Computer Science & IT

The Department of Computer Science & IT, University of Jammu, Jammu was established in the year 1987 and started PGDCA course. Presently the department is running a three year MCA course with a total intake of around 50 students selected through an All India Entrance Test. In addition, the department is also pursuing the Ph.D. programme in the areas viz. Visualization Techniques, Network Technologies, Simulation and Modeling, Neural Networks, Artificial Intelligence etc.



The Department has five Computer Labs. Three labs. are being used exclusively for MCA programme, one for research activities and one for providing the centralized internet facility to the entire campus. The department has latest softwares as well as hardware equipments. The Campus of the University of Jammu is networked with optical fiber and Wi-Fi.

The Campus networking is a consequence of the active involvement of the department. The department is also involved in maintaining campus networking and internet facility to the various departments through 30 Mbps link.

In addition the department organises various programmes such as IGNOU programmes, UGC Sponsored Refresher Courses for College Teachers, Seminars, invited talks by prominent persons from academics and industry.

The department has its own library which houses more than 7000 books, 18 periodicals and magazines and 11 journals including those from ACM and IEEE.

There are 6 faculty members in the department with good expertise in various fields such as Graph theory, Image processing, Digital Electronics, Simulation, Numerical Methods, Artificial Intelligence etc. with publications and books to individual credit. Some of the faculty members have also worked in International Research Centres such as Fermi Lab; USA; CERN, Geneva; TIFR, Bombay etc. The services of guest faculties are also acquired from time to time. The department has 5 technical staff members to assist students in the lab.

The alumni of this department are working in various reputed organisations in India and Abroad. The Department has a placement cell to cater to the placement / project requirement of the students. The Department is in a process to automate the Departmental activities completely.

## (ii) Bhaderwah Campus, University of Jammu

In the history of Jammu and Kashmir, higher education has been taken to the doorsteps of the disadvantaged and hitherto excluded section of the society living in the remote hilly area of the state by establishing offsite campuses at Bhaderwah, Kathua, Udhmpur and Poonch. The Bhaderwah Campus and its satellite to be established at Doda and Kishtwar aim at catering to the people living in the predominantly hilly suburb of the town. The first phase of the construction of the campus is complete. The academic program of the Campus started on 1st of Sep. 2006. The academic courses offered on the campus include Masters of Computer Applications, Masters of Business Administration, and Masters in English. The Campus also offers a certificate course on e- Learning for Women.



The MCA program of the University is a three-year, full-time program. It is designed to develop IT Professionals.

The program also trains students in the state-of-art technology such as object-oriented analysis/design techniques and programming, client server application development, distributed database development, telecommunications and local area network design and artificial intelligence/expert systems.

## (iii) Ramnagar Study Centre
### Study Centre of Udhampur Campus, University of Jammu, Jammu

Ramnagar Centre is located in Ramnagar Tehsil of Udhampur District. This centre started functioning in the year 2007 within the premises of Govt. Degree College Ramnagar with two PG Courses namely MCA and M.A. Sociology. The Campus is well connected with road and rail. It is around 40 Kms. from Udhampur.

The Computer Science Department of the centre is having sufficient Laboratory and Library facilities. The Laboratory of the Department is well equipped with 15 computers and two laser printers which are sufficient enough to cater the need of the existing and for coming number of students.

The faculty of the Department is committed and backed by the senior teachers from the Department of Computer Sc.& IT, University of Jammu, Jammu.

## (iv) Govt. P G Degree College, Rajouri

This College is located at a small hillock in the foothills of snow clad Pir Panchal Range, situated at a distance of about three Kilometers north east of Rajouri town. Established in 1981 this college is presently offering Science, Arts, Commerce and BCA streams at undergraduate Level and MCA and M Sc Chemistry at Post graduate Level.

Rajouri Fort a monument of Mughal Era stands at a distance of about half a kilometer in the southeast. The College campus being at a distance of about 3 Km away from the main town is pollution free and an ideal place for the learners.

Since its inception this prestigious institution has produced many competent and talented graduates in the fields of Science, Arts, Commerce and Computer Applications. Besides imparting Education in Science Arts and commerce streams P G College Rajouri has proud privilege of running professional course BCA, which was started in the year 2003 and the most Prestigious Course MCA was started in the year 2004 under the affiliation of University of Jammu. The College has well-furnished Computer Lab. with Internet facilities for the students. The College has passed out two batches of MCA with marvelous results.

## 1.2 COURSE CONTENTS

The MCA curriculum is designed to develop all round capability in the students which enables them to get absorbed in Business organizations, IT industry, R&D centers and Educational Institutions. Out of the six semesters, the last semester is devoted for Project work which is to be undertaken by the students in an organisation of good repute for developing software systems.

The MCA is a regular course and a student admitted to this course shall not engage himself in any business or profession or vocation during the tenure of the course.

Paper-wise outline of MCA programme is as under :

**Semester - I**

## Semester - III

| | |
|---|---|
| MCA-302 | Operating Systems. |
| MCA-307 | Object Oriented Concepts and Programming in C++. |
| MCA-308 | Computer Networks. |
| MCA-309 | Software Project Management. |
| MCA-310 | Analysis & Design of Algorithms. |
| MCA-390 | Practicals (Based on above courses). |

## Semester - IV

| | |
|---|---|
| MCA-410 | Combinatorics and Graph Theory |
| MCA-411 | Web Technologies |
| MCA-412 | Programming in JAVA |
| MCA-413 | Communication Skills |
| MCA-414 | Advanced Database Systems. |
| MCA-490 | Practicals (based on above courses) |

## Elective -I

| | |
|---|---|
| MCA-415 | Theory of Computation |
| MCA-416 | E-Commerce |
| MCA-417 | Neural Networks |

## Semester - V

| | |
|---|---|
| MCA-503 | Computer Graphics |
| MCA-504 | Artificial Intelligence |
| MCA-510 | Computer based Optimization Techniques |
| MCA-511 | Principles of Complier Design |
| MCA-590 | Practicals (based on above courses) |

## Elective - II (anyone of the following)

| | |
|---|---|
| MCA-512 | Simulation and Modeling. |
| MCA-513 | Mobile Computing. |
| MCA-514 | Parallel & Distributed Processing. |

## Semester - VI

| | |
|---|---|
| | Real Life Projects |

## 1.3 ELIGIBILITY

A Bachelor's Degree of 10+2+3 pattern in any discipline/graduation in any professional course of more than three years duration or any other qualification recognised by the University as equivalent thereto, with at least 50% of the aggregate marks (40% for candidates belonging to Scheduled Castes and Scheduled Tribes).

Candidates appearing in the qualifying examination, or whose result of the same is yet awaited, may also apply for admission and appear in the prescribed Entrance Test for admission provisionally. However, their admission shall be subject to the condition of submitting documentary evidence of having passed the qualifying examination with the required percentage of marks mentioned above latest by 30th June of the year of admission if they are to qualify from the outside Universities, but within ten (10) days of the declaration of result if they are to qualify from the University of Jammu.

## 1.4 INTAKE AND DISTRIBUTION OF SEATS

The intake capacities and distribution of seats are different for different departments. The respective intake capacities are :

| S.No. | Name of the Dept./Inst. | No. of Seats | |
|-------|-------------------------|------|---------|
| | | Open | Reserve |
| 1. | PG Dept. of Computer Science & IT, University of Jammu | 22 | 11 |
| 2. | Bhadarwah Campus, Bhadarwah | 11 | 9 |
| 3. | Ramnagar Study Centre, Ramnagar | 16 | 9 |
| 4. | Govt. Degree College, Rajouri | 10 | 9 |

The distribution of the seats at different Institutions is as follows :

## A)  PG. Dept. of Computer & IT, University of Jammu.

I)      67% of the total seats belong to open merit category and the remaining 33% of the seats are reserved for the candidates belonging to the following reserved categories, which shall be filled as per the relevant statutes governing the general admissions of the University.

i)      Candidates belonging to Scheduled Castes.

ii)     Sportsmen and persons who have excelled in Cultural/Literary Activities.

iii)    Persons who have participated with distinction in N.C.C. & N.S.S. Activities.

iv)     Defence Service Personnel including ex-servicemen and their children who are permanent residents of the state and have had a satisfactory service record.

v)      Candidates belonging to the areas of the Actual Line of Control.

vi)     Candidates belonging to Scheduled Tribes.

vii)    Candidate belonging to Backward Areas other than Leh & Kargil.

viii)   Candidates belonging to districts of Leh & Kargil.

ix)     Candidates belonging to Weak & Underprivileged classes as notified in S.R.O. by the State Govt. from time to time.

II) The Open category seats are to be filled by the candidates of Jammu University as well as by the candidates from other than Jammu University with the condition that not more than half of the seats shall be allotted to the candidates from other than Jammu University even if they fall in the open merit list.

III) The Vice-Chancellor may at its discretion, authorize admission of one orthopaedically handicapped candidate, who is suffering from a degree of disability of 45% and above, subject to the fulfillment of the eligibility criteria.

IV) The University may, subject to the fulfillment of the eligibility conditions, consider the admission of not more than five candidates belonging to Kashmiri Migrant families, in order of merit, not exceeding one in a particular course; provided that such a candidate produces a documentary evidence of belonging to family of registered Kashmiri Migrant. Admission under this category may be allowed only in the course for which classes are not being conducted by the post graduate programme of Kashmir University at Jammu University Campus. Such admission may be authorized by the Dean Academic Affairs against a seat, which shall be supernumerary in a course of study in the department.

V) The University offers a limited number of Payment Seats in the MCA Programme in the PG Dept. of Computer Science & IT which shall be filled as per the relevant statutes / regulations governing admissions. These, however, shall be supernumerary seats and thus, shall not be reckoned in determining the quantum of reserved and open merit seats. A candidate seeking admission under the payment seats shall have to declare his / her intention at the appropriate column in the Application Form and if selected shall have to deposit Rs. 3 Lacs at the time of admission in the Department besides the normal fee / charges for the course.

The first preference shall be given to the candidates from Jammu University or J&K State Subject holders.

## B) Bhadarwah Campus, Bhadarwah, Ramnagar Study Centre, Ramnagar and Govt. Degree College, Rajouri :

In each of the above places 67% of the total seats belong to Open Merit Category and the remaining 33% of the seats are reserved for the candidates belonging to different reserved categories. These seats shall be filled as per the norms applicable for admission in PG Department of Computer Science & IT, University of Jammu.

C) The 50% of the total seats in Bhaderwah campus & Ram Nagar Study Centre shall be reserved for the candidates who are the pass-outs of the respective district colleges and only in the event of no such candidate is available for these seats, the same will be filled up by the candidates of other areas.

## 1.5 ADMISSION

Admission to the course is based on merit. The selection of the candidates shall be made on the basis of their performance in a written (Entrance Test) as per statues, to be conducted on a date and time as notified by the PG Department of Computer Science & IT, University of Jammu.

The admission in the open category for all institutes will be made through counselling on date(s) and time to be notified by the University, strictly in accordance with the merit list and the preference of the candidates for the institute at the time of counselling. Counselling Schedule shall be issued by the PG Department of Computer Science & IT immediately after the declaration of the Entrance Test Result. The candidates are advised to remain in touch with the PG Department of Computer Science & IT for the entrance test result and the counselling schedule for admission. The candidates appearing for counselling must report along with original documents including marks certificate of the qualifying examination.

In case of reserved categories and payment seats category the merit list will be displayed at the PG Department of Computer Science & IT and the selection will be based on their inter-se merit. The admission in the reserved categories will also be made through counselling for which a separate schedule shall be notified by the PG Dept. of Computer Science & IT.

The inter-se merit for different reserved categories shall be determined as follows :

i)    In case of reserved categories : Scheduled caste, Scheduled Tribe, Defence Service Personnel, Actual Line of Control, Backward Areas, Weak and Underpriviledged Class, Residents of Leh & Kargil or those applying for payment and discretionary seats, having passed the qualifying examination as per the eligibility condition, the score of entrance test shall be used as the selection criteria to determine their inter-se merit in the respective categories / groups. However, in case of tie in any of the above mentioned categories / groups the inter-se merit shall be determined on the basis of the candidate's percentage of marks in the qualifying examination.

ii)   In case of candidates belonging to other reserved categories Sportsmen and persons who have excelled in Cultural / Literary Activities and persons who have participated with distinction in NCC & NSS activities, selection for admission shall be made on the basis of performance in the entrance test plus the achievement score in the respective categories to be determined as per relevant statutes governing university admission. The 80% weightage shall be assigned to the Achievement score and 20% weightage to the marks obtained in the entrance test. In the case of tie in any of the above mentioned categories / groups, the inter-se merit shall be determined on the basis of achievement score in the respective category.

## 1.6   LAST DATE FOR SUBMISSION OF APPLICATION FORM

Application form complete in all respects should reach the Head, Department of Computer Science & IT. New Campus, University of Jammu-180006, not later than the dates shown in the advertisement notice. No certificates / documents will be entertained after the last date of submission of forms.

## 1.7   ENTRANCE TEST

All applications received in response to the advertisement for MCA admission shall be scrutinised and the eligible candidates shall be called to appear in the written Entrance Test.

The syllabus of the written test for admission to Master of Computer Applications (MCA) shall consist of Mental Ability, English Comprehension and Mathematics of 12th. standard. The syllabus along with a model Question Paper for the examination is shown in Annexure - B (Syllabus and Model Question Paper) The test shall be of about two hours duration.

**(a)   Description of the Test**

The candidates will be given a test booklet containing questions. For each question several suggested answers will be given, of which only one answer shall be correct. The questions will have serial numbers, 1,2,3, etc. and the answer choices for each question shall be marked as A,B,C,D, etc. A separate answer sheet shall be given to answer the questions.

**(b)   Method  of answering questions**

On the answer sheet, for each question there shall be a circle (O) under the column heading A,B,C,D. In answering any question, the correct option (i.e. A or B or C or D) of the answer chosen from the question booklet should be noted and the corresponding circle (O) should be blackened with HB pencil against the appropriate question number on the answer sheet. (See sample answer sheet).

**(c)   Important Instructions**

1.   Read the instructions for each of the sections of the test carefully. The test will be divided into several parts.
2.   Count the no. of pages on the question booklet before you start. Also check whether the answer sheet is not damaged.
3.   Do not give more than one answer to any question as there is only one correct answer to each question. If more than one answer are given for any question, it will be counted as wrong. If after blackening some O on the  answer sheet, you want to change your answer, erase the first mark completely and then mark the new one.
4.   Follow the instruction given by the supervisor. When supervisor asks you start or stop a test or a section of the est, you must follow his instructions immediately. This is very important.
5.   You will not be permitted to take scrap or rough paper, scales or drawing instruments or calculator into the examination hall as they are not needed. Do your rough work in the space provided on the booklet itself.
6.   After finishing the test submit the test booklet and the answer sheet to the supervisor. Do not take these out of the hall.
7.   Do not forget to write your name, roll number or registration number and the question booklet number on the answer sheet.
8.   The candidates are instructed to be careful while answering the questions. The candidates should answer only those questions for which they are fully confident. They should avoid guessing the answers as for every Wrong answer there shall be a deduction of 0.25 marks i.e. a negative marking of 0.25 marks.
9.   Anyone found using unfair means in the Entrance Test shall be disqualified and shall loose eligibility for future also.

**(d)**   The candidate's roll number, examination centre & results shall also be available at Jammu University website (www.jammuuniversity.in).

**Note :  For some more important instructions about Entrance Test see Annexure - C.**

## 1.8    SELECTION NOTIFICATION &  APPEAL

a)    Result of the Common Entrance Test shall be notified on the notice board at PG Dept. of Computer Science & IT and the Jammu University website *(www.Jammuuniversity.in)*. The candidates, are advised to keep in touch with the PG Dept. of Computer Science & IT and comply with instructions issued by the department from time to time and displayed on the notice board and university website. Within 3/4 days after the declaration of the Common Entrance Test result, the Dept. of Computer Science & IT shall issue a notification for inviting candidates for counseling in order of merit. Allocation of institution for MCA course under open category shall be made on spot during counseling. No complaint shall be entertained in case of non compliance of instructions issued through such admission notices.

b)    Under no circumstances seats lying vacant in any institution on the last prescribed date for the completion of admissions shall be filled up by the HOD / Principal/Admission Committee even if the candidate falls immediately next in merit to the last admitted candidate. The vacant seats will be referred to the Appellate Committee for consideration and necessary action.

c)    Notwithstanding anything contained above, a candidate who has any grievance regarding application of statutes governing admissions, shall have the right to file an appeal in the prescribed proforma on payment of fee prescribed for this purpose, as may be notified by the university. Such an appeal shall be considered by the appellate committee. It shall be obligatory for the appealing candidate to appear in person before the appellate committee, if called upon to do so. The appellate form with all the formalities completed is to be submitted to Dean Academic Affairs within the dates notified by the University.

d)    Selected candidates must provide original certificates (of qualifying examination, category, if any, etc.) at the time of admission to MCA.

Students who have passed the qualifying examination from an institution other then the University of Jammu shall be required to submit the following documents within a period of one month from the date of admission to MCA:

i)    Migration certificate from the university last attended in accordance with relevant statutes.

ii)    Eligibility certificate issued by the University of Jammu.

## 1.9    FEE CHARGES

| S.No. | Centre | Fee |
|---|---|---|
| 1. | PG Dept. of Computer Science & IT, University of Jammu | As given in Annexure-A |
| ~~2~~ | ~~Bl.. l..l C.. Bl.. l..l~~ | ~~A.. .i.. .i. A... .. A~~ |

## 2.0 IMPORTANT INSTRUCTIONS

I)   Please fill in the application form carefully and send it by registered post / by hand to the Head, Department of Computer Science & IT, New Campus, University of Jammu, Jammu 180006, so as to reach him not later than the date shown in the advertisement.

ii)  Incomplete / late application will not be entertained.

iii) Eligible candidates shall be issued Admit Cards by post or by hand on request.

iv)  Eligible candidates will be allowed to appear in the Entrance Test on the production of admit cards. Those who do not receive their admit cards two days prior to the commencement of written test should contact the PG Department of Computer Science & IT in this regard and collect the duplicate admit card personally after submitting attested passport size photograph.

v)   Please attach a certificate of good moral character from the Head of the institution last attended or from a Gazetted Officer. Also attach attested copy of marks certificate of qualifying examination.

vi)  The candidates applying to seek admission under any reserved category must attach with the application form the attested copies of appropriate certificates issued by the competent authority.

vii) The candidates selected for admission shall have to produce the certificates in original, failing which their admission shall be cancelled.

viii) Admission / Selection to the MCA course shall be provisional, subject to the verification of original certificates and related documents.

ix)  If a selected candidate fails to produce original certificates or deposit the required fee within the specified period of time, his selection shall be cancelled and the seat falling vacant shall be allotted to the next candidate in the merit.

x)   The candidates should remain in touch with the PG Dept. of Computer Science & IT, University of Jammu regarding the declaration of the Common Entrance Test result, merit list and other related informations.

xi)  For determining the number of seats in different reserved categories, fraction of less than half shall be ignored and fraction of a half and more shall be treated as one, subject to the condition that a minimum of one seat is reserved in each of the reserved categories as listed under reserved categories.

xii) Enclose the list of documents attached with the application form.

## Important note

In case of any discrepancy / dispute, not withstanding anything contained in the admission brochure, the statutes / regulations governing admission to MCA course in conjunction with general statutes / regulations governing admissions to other Master's Degree programmes of the University shall be followed.

## 2.1 Rules of Discipline :

1. Students shall be responsible for their conduct and are prohibited from doing anything either inside or outside the department or university campus that will amount to a breach of discipline or interference in the discipline and normal working of the department or university.

2. A student shall be liable to disciplinary action for violation of any of the rules framed by the university authorities time to time. Disciplinary action may involve warning, and / or fine, and / or suspension from classes, from the examination, from use of the Departmental Library or even from the Department as such, or any other action as deemed fit by the concerned authorities.

3. Students shall conduct themselves in a polite manner both towards the staff members, faculty members and towards their fellow students. Insubordination, unbecoming language or ungentlemanly conduct including teasing etc. shall be severely dealt with.

4. Students shall maintain perfect silence in class rooms, laboratories and library and desist from disorderly behaviour. They must not loiter in the corridors or in front of class rooms or office rooms and must keep as quiet as possible at all times. During their free periods students should work quietly in the Library or Reading Room or spend the time without causing any disturbance. Smoking in the campus is prohibited.

5. Students shall take proper care of the University furniture and premises, and they must not spoil or cause any damage to, or tamper with University property, furniture and fittings. They shall not spoil the lawns.

6. Students shall leave their vehicles locked in the area provided or this purpose. No vehicle shall be parked in any other part of the area where traffic blockage or congestion is caused.

7. No Society can be formed in the university without the permission of the authorities nor shall any person be invited to address a meeting in the university without the prior permission of the authorities.

8. Any kind of arms, even if licensed, shall not be carried in the department or university campus. If any student bears any sort of threat, he shall inform the concerned authority.

## 2.2   FEE STRUCTURE

**For PG Dept. of Computer Science & IT, University of Jammu and
Bhadarwah & Udhampur (Ram Nagar) Campuses, University of Jammu.**

| S.No. | Particulars | Amount |
|---|---|---|
| 1. | Admission Fee | Rs.   110/- |
| 2. | University Sports Fee | Rs.   75/- |
| 3. | University Development Fund | Rs.   200/- |
| 4. | Magazine / University News Bulletin Fee | Rs.   40/- |
| 5. | Library Fee | Rs.   70/- |
| 6. | Science Fee | Rs.   300/- |
| 7. | Corpus Fund | Rs.   70/- |
| 8. | Stationery Fee | Rs.   75/- |
| 9. | Games Fee | Rs.   200/- |
| 10. | Culture / Literary Fee | Rs.   75/- |
| 11. | Social Activities Fund | Rs.   65/- |
| 12. | Student Assistance / Aid Fund | Rs.   45/- |
| 13. | Reading Room Fee | Rs.   75/- |
| 14. | N.S.S. Fee | Rs.   50/- |
| 15. | Placement Fee (Only in First Sem.) | Rs. 2000/- |
| 16. | Excursion Fee (Actual expenditure to be realised from the students by the Dept. at the time of conducting the excursion) | |
| 17. | Identity Card | Rs.   15/- |
| 18. | Miscellaneous | Rs.   20/- |
| 19. | Medical Assistance | Rs.   45/- |
| 20. | Laboratory / Workshop Deposit (Refundable) | Rs.   400/- |
| 21. | Library Deposit (Refundable) | Rs.1,000/- |
| 22. | Computer Fee per semester | Rs.3,000/- |
| 23. | Informatics Fund per semester | Rs.1,500/- |
| 24. | Placement & Quality Assurance Cell | Rs.   100/- |
| 25. | Library Development Fund | Rs.   200/- |
| 26. | Insurance Fee | Rs.   40/- |
| 27. | Examination Fee | Rs.   460/- |
| 28. | Examination Development Fund | Rs.   100/- |
| 29. | Induction Charges (Only in First Sem.) | Rs. 1500/- |
| 30. | Special Development (per year | Rs. 2000/- |
| | Payment Seat Fee (in addition to all the above fees) | **Rs.  3 Lacs** |

**Note : The fee structure as mentioned above is subject to additions / alterations.**

# 2.3    Syllabus & Model Question Paper

## Syllabus

| | | |
|---|---|---|
| 1. | (A) Series-Numeric and Alphabetic | 35% |
| | (B) Logical Reasoning | |
| 2. | English-Synonyms, Antonyms, Identification of Grammatical Errors etc. | 15% |
| 3. | Arithmetic including Percentage, Interest, Profit and Loss, Time and Work, Height and Distance, Stock and Shares, Ratio and Proportion, Average, Fractions etc. and Mathematics, covering Trignometry, Geometry, Algebra, Calculus, etc. | 50% |

## Sample Question Paper

Series (involving logic)

### Directions for questions 1-8 :

In each question below you will find a series either with integers or with two letters a and b and these are arranged following some pattern or rule. Try to understand the pattern or rule. There are some blank spaces in the series. Your task is to find out the missing integer or letter from the given alternatives and indicate your answer on the answer sheet.

### Question :

1)   a - b b a - b b a a b -
   A) aba          B)  aab          C)  bab          D)  bba

2)   85  80  76  73
   A) 71          B)  70          C)  75          D)  None

3)   a - b - a b - b
   A) aab          B)  aba          C)  bab          D)  bbb

4)   105          315  693
   A) 819          B)  1287          C)  455          D) None

5)   a - b c a a a b - a
   A) bc          B)  cb          C)  ac          D)  ca          E)  None of these

6)   a - a c a a b - a a
   A) ab          B)  bc          C)  ca          D)  ac          E)  None of these

7)   5  10  125  3  6  —
   A) 81          B)  136          C)  25          D)  27          E)  None of these

8)   1  49  9  —  25  –
   A) 81, 125 B)  16, 136          C)  16, 35          D) 81, 121 E)  None of these

## Mathematics

9)   The expression $ax^2 + bx + c$ has the same sign as of "a" if
   A) $b^2 - 4ac > 0$          B)  $b^2 - 4ac = 0$          C)  $bb^2 - 4ac \$ 0$
   D)  "b" and "c" have the same sign as "a"

10)   If $a : b = c : d$ then which of the following is true ?
   I)  $bc = ad$          II)  $\dfrac{a+b}{B} = \dfrac{c+d}{d}$          III)  $\dfrac{a+b}{ab} = \dfrac{c+d}{c-d}$
   A)  Only I and II are true but III is false.          B)  I and III are true but II is false
   C)  II and III are true but I is false.          D)  I, II and III are all true
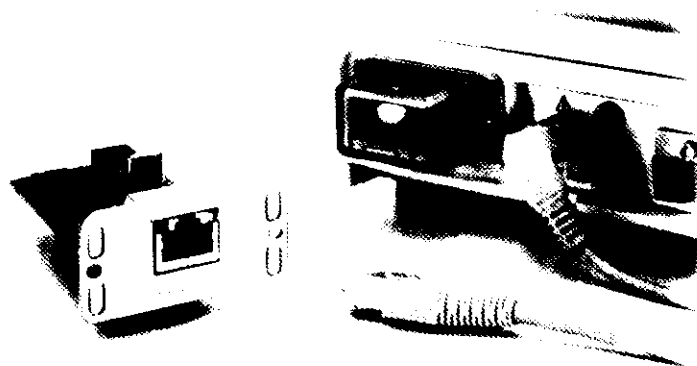
11) In a business, A, B and C invested Rs. 500/-, Rs. 225/- and Rs. 300/- respectively. If the profit earned is Rs. 410/- what will be the share of A ?

A) Rs. 200/-    B) Rs. 180/-    C) Rs. 120/-    D) None of these

12) If the diameter of the circle is doubled, the area becomes

A) Twice    B) Thrice    C) Four Times    D) Eight Times    E) None of these

## Reasoning

### Directions for questions 13 & 14 :

Each of the following questions is followed by two statements labelled by (a) and (b). Use the data / information given in (a) and (b) to decide whether the data are sufficient to answer the question. Record your answer as

a) If only "a" is required.                b) If only "b" is required

c) Either "a" or "b" will do.    d) Both "a" and "b" are required        e) More information is needed.

13) Is Ram younger than Shyam ?

a) 15 years ago Shyam was 20 years old.        b) After 10 years Ram will be 30 years old.

14) Is "X" larger than "Y" ?  ("X" and "Y" are integers)

a) $(x - 15)$ is larger than $(Y + 7)$        b) $(X+1)2 - (Y+2)2$ is positive

### Directions for questions 15 & 16 :

In the following questions a pair of words is given followed by 4 additional pairs of words. Select the pair of words from among the four alternatives that best matches the relationship existing between first two words.

15) Heredity :    training

a) Cultivated : Acquired    b) Instinct : Habit    c) Natural : Hobby    d) Excuse : Denial

16) Bud : Flower

a) Food : Stomach        b) Baby : Adult

c) Fruit : Tree        d) Sun : Sky

## English

### Directions for questions 17 - 19 :

In each of the following questions, a word is given followed by four other words marked by A, B, C and D, one of which is nearest in meaning with the given word. Your task is to choose the word and indicate that on the answer sheet. If you do not find any correct answer then indicate "E" as your answer.

17) Insipid

A) Ominous    B) Chink    C) Prosy    D) Avocation

18) Contrition

A) Indemnity    B) Compunction  C) Resuscitation    D) Garniture

19) Sagacious

A) Multigenerous    B) Shackle    C) Secession    D) Exude

### Directions for questions 20 - 22 :

In each of the following questions the alphabets of a word are prescribed in a disarranged way. Your task is to arrange them in proper order so that a meaningful word is formed and then indicate on the answer sheet the index of the alphabet that is put at the end.

20) V        O        R        E        P
    (A)      (B)      (C)      (D)      (E)

21) H        E        F        C        I
    (A)      (B)      (C)      (D)      (E)

22) D        A        L        T        U
    (A)      (B)  (C)  (D)      (E)

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## 2.4 INSTRUCTIONS ABOUT ENTRANCE TEST (A SAMPLE) ~~PATTERN~~ of 2009

| | | |
|---|---|---|
| Test Date | : | ~~19-06-2008~~ (Saturday) ~~(9~06-20~~ |
| Reporting Time | : | 2.30 P.M. |
| Test Starts At | : | 3.00 P.M. |
| Duration of the Test | : | 2 hrs. 20 minutes (Approx.). |
| Test Booklet Series | : | A,B,C,D. |

### Important points for candidates:

| | | |
|---|---|---|
| 2.30 P.M. | : | Take your seats as notified. |
| 2:40 P.M. | : | Answer sheets will be distributed (specimen of answer sheet is on the next page). Write your Roll Number, Name in area 1 and 6 respectively (side -1 of the answer sheet) by using HB pencil and blacken the corresponding ovals. Write again your Roll No., Reg. No. and Examination Venue in area 8, 9 and 10 respectively (side - 1 of the answer sheet) by using pen. Put your signature in the space provided for on side - 2 of the answer sheer. |
| 2:50 P.M. | : | Question booklets will be distributed. Read the directions on the front cover of the question booklet carefully and copy the booklet number in Area - 2 and Area -3 on the answer sheet as printed on the booklet front cover. Ignore area 4 and 5 and leave these blank. |
| 3:00 P.M. | : | Open the question booklet, read the directions carefully and start answering the questions of part I, part II and part III in the space provided on side -2 booklet. |
| 2:20 P.M. | : | Stop writing and close the question booklet. Now the booklets and the answer sheets will be collected. Do not leave the hall until all booklets and answer sheets are collected and counted. The exact time to stop writing shall depend upon the duration of the question paper. |

# ANSWER SHEET
## Side-1

**CERTIFICATION FROM INVIGILATOR**

Certified that entries in the Box Nos. 1,2,3,4,5,6 & 7 are checked and found correct

**Signature of the invigilator with date.**

### 1. ROLL NO. BEGIN HERE

1 0 1 0

### 2. REGISTRATION NO. BEGIN HERE

### 3. BOOKLET NO. BEGIN HERE

1 9 5

### 4. BOOKLET SERIES

C

### 6. NAME OF CANDIDATE
(LEAVE A COLUMN BLANK BETWEEN FIRST, MIDDLE AND LAST NAME)

R A H U L   K H A N N A

### 5. CATEGORY

| GENERAL | ○ | OBC | ○ |
|---|---|---|---|
| SC | ○ | DEPARTMENTAL | ○ |
| ST | ○ | OTHERS | ○ |
| BC | ○ | EBC | ○ |

THE ENTRIES IN BOX NO. 8,9 & 10 MAY BE MADE USING BALL POINT PEN.

**7. WRITE SUBJECT / DISCIPLINE**

MCA

**8. WRITE ROLL NO.**

1010

**9. CANDIDATE SIGNATURE & DATE.**

Column 1: questions 1–60, each with options Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ

Column 2: questions 61–120, each with options Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ

Column 3: questions 121–180, each with options Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ

Column 4: questions 181–240, each with options Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ

## 2.5    Admission Process

### Tentative Date Schedule of Admission Process

Date of Issuing of Forms                                                                    :    17th May, 2010

Last Date of Issuing of Forms by Post                                          :      9th June, 2010
(However the forms can be obtained by Hand
till the last date of submission of forms)

Last date of Submission of Forms                                              :    11th June, 2010
Last date of Submission of Form (with late fee of Rs. 300/-)    :    15th June, 2010
(The Application forms with late fee can be obtained / submitted
by hand only at PG Department of Computer Science, University
of Jammu, Jammu) :
(Candidates submitting Application Forms with late fee shall collect their
admit cards by hand)

Date of Entrance Test                                                                 :    19th June, 2010

Tentative date of notification of result of Entrance Test.         :    30th June, 2010

Tentative Counselling Dates                                                       :      8th July, 2010

*Last date of admission                                                            :

*Last date of submission of appeals by the candidates to the HOD.    :

*Last date for communication of appeals & the number of         :
vacant seats by HOD to the office of Dean Academic Affairs.

*Last date for filling up the seats on the directions of the
Appellate Committee.                                                                :

* As per the notifications to be issued by the University.

# CERTIFICATE OF BEING A MEMBER OF THE SOCIALLY AND EDUCATIONALLY BACKWARD CLASS (RBA)

This is to certify that Mr./Ms./Mrs................................................................
.............................Son/Daughter of .......................................... Resident
of.........................Tehsil................... District ...................................is a member of the Socially
and Educationally Backward Class, falling under the category

   i)     Resident of Backward Areas;

   ii)    Resident of area adjoining the Line of Actual Control;

   iii)   Weak and Under privileged class (Social Caste)

This is also certified that the said Mr./Ms./Mrs.....................................................(on behalf of applicant) submitted his/her application for grant of this certificate to this Office on............................. and the certificate has been delivered to him/her under my hand and seal today on the ...................................

SIGNATURES...........................
DESIGNATION......................
Name in Block Letters..............................

...............................
Authorised Officer
(with seal)
*(Competent Authority for issuing of Certificate is Revenue Officer not below the rank of a Tehsildar)

* No certificate by other than the Competent Authority shall be entertained/ considered.

# CERTIFICATE OF BEING WARD OF DEFENCE PERSONNEL

This is to certify that Mr./Ms./Mrs...................................................................is a Son/Daughter of.......................serving/has served as member of Army/Navy/Air Force.

Authorised Officer
(with seal)

Date....................

*(Competent Authority for issuing of Certificate is authorised Officer of Zila Sainik Board/Commanding Officer of the Unit where serving/served)

* No certificate by other than the Competent Authority shall be entertained/ considered.

# FORM OF SCHEDULED CASTE CERTIFICATE

**FORM OF CERTIFICATE TO BE PRODUCED BY A CANDIDATE BELONGING TO SCHEDULED CASTE IN SUPPORT OF HIS/HER CLAIM**

This is to certify that Mr./Ms./Mrs.....................................................Son/Daughter of .......................................of Village/Town.........................District/Division................... of the State......................belongs to the ....................... Caste which is recognised as Scheduled Caste under the Constitution /Jammu & Kashmir Scheduled Caste Order, 1956.

Date.....................

SIGNATURES..........................
DESIGNATION......................
(with seal of the Officer)
(Competent Authority for issuing of Certificate is Revenue Officer not below the rank of a Tehsildar)

# FORM OF SCHEDULED TRIBE CERTIFICATE

**FORM OF CERTIFICATE TO BE PRODUCED BY A CANDIDATE BELONGING TO THE SCHEDULED TRIBE IN SUPPORT OF HIS/HER CLAIM**

This is to certify that Mr./Ms./Mrs......................................................Son/Daughter of ......................................of Village/Town..........................District/Division................... of the State......................belongs to the ....................... Tribe which is specified as a Scheduled Tribe under the Constitution /Jammu & Kashmir Scheduled Tribe Order, 1989 as amended from time to time.

SIGNATURES..........................
DESIGNATION......................
(with seal of the Officer)
Date.....................
(Competent Authority for issuing of Certificate is Revenue Officer not below the rank of a Tehsildar)

# AFFIDAVIT

## (FOR CANDIDATES SEEKING ADMISSION UNDER THE RESERVED CATEGORY)

(A) I...............................................Son/Daughter of...................................................................
Resident of................................................................... hereby solemnly declare that I am seeking admission to the course/programme of study namely.................................................. in the Department of ............................... University of Jammu on the basis of .......................................................... Reserved Category. I further declare that Reserved Category Certificate submitted by me is genuine and in the event of this having been proved otherwise, my admission shall stand automatically cancelled, besides any other action that may be taken against me under law for my civil or criminal liability.

(B) I further hereby solemnly declare that I was not involved in any criminal / anti-social activities during this period.

<div align="right">DEPONENT</div>

# Net Working Place