

Post Graduate Diploma in Computer Science & Applications

(P.G.D.C.S.A.)

AT

**Department of Computer Science
Rollwala Computer Centre, Gujarat University
Ahmedabad**

July 2009 to June 2010

Price: Rs. 250/-



**DEPARTMENT OF COMPUTER SCIENCE
ROLLWALA COMPUTER CENTRE
GUJARAT UNIVERSITY
AHMEDABAD – 380 009**

Website: www.gujaratuniversity.org.in

: www.rollwala.org

Email: desrcc@gmail.com

Phone: (079)26300164, 26300877

**DEPARTMENT OF COMPUTER SCIENCE
ROLLWALA COMPUTER CENTRE
GUJARAT UNIVERSITY
Ahmedabad – 380 009**

PGDCSA Admissions – July 2009

**SCHEDULE
IMPORTANT DATES**

Distribution and Submission of forms	June 18, 2009 to July 7, 2009
Last date for Issue and Submission of forms	July 7, 2009 (up to 5.00 p.m.)
Date and time of Display of list of Seat No's, Name & Venue	July 10, 2009 (5:00 p.m.)
Date and time of Entrance Test	July 12, 2009 (12:00 noon – 3:00 p.m.)
Publication of Merit list & Counselling Schedule	July 23, 2009
Counselling Date	July 27, 2009
Commencement of Classes	August 03, 2009
Second round of Counselling (if required)	August 18, 2009

No separate intimation will be given for Counselling

GUJARAT UNIVERSITY

Accredited B++ grade by NAAC

The University:

The Gujarat University was founded in the year 1949 by Anand Shankar Dhruv, Kasturbhai Lalbhai and Dadasaheb Ganesh Mavalankar (the first speaker of Loksabha). The foundation stone was laid by Sardar Vallabhbhai Patel. The motto of University is a Sanskrit subhashita from Bhagvad Gita which means “Balance in life is accomplished through proficiency & mastery in work.” It is the largest and biggest University in state comprising of 19 districts and has a radius of 1000 kms. The University had started its operation with 21 affiliated colleges and three recognized institutions. Today, the University has 252 affiliated colleges, 15 recognized institutions, 23 approved institutions, 34 PG departments, 237 PG centres and seven Post-graduate University Schools. It imparts education in the fields of Arts, Science, Commerce, Medicine, Engineering, Law, Computer Science, Management & Ayurveda. Apart from conventional courses it also offers variety of new courses like Forensic Science, Port Management and others.

Gujarat University is an affiliating at Undergraduate level, while it is teaching one at Postgraduate level. Indeed, the responsibility for postgraduate instruction has been statutorily given to the University and accordingly it has evolved a plan of coordinated instruction under the direct control and supervision of the University so as to ensure efficient and diversified instructions.

The University has pioneered in developing curriculum and courses in emerging areas since its inception. Realizing the need of qualified computer professionals, the Gujarat University had initiated Post-Graduate Certificate and Post-Graduate Diploma course in Computer Science and Applications way back in early 70's and 80's at Rollwala Computer Centre.

Salient features of the University:

Gujarat University is the oldest University in the State and has the largest number of students enrolled in the State. The University has distinguished alumni who are well placed all around the globe. Gujarat University also enjoys the reputation of being the mother University of most of other Universities in the State.

Vision

The vision of the Gujarat University is to be a centre of Excellence, providing value based quality education, efficiently with financial sustainability, leading to socio-economic welfare of the society through enrichment of human capital.

Mission

- Empowering students through modernized syllabus.
- Innovation in teaching
- Promotion of research, consultancy & extension for the benefit of the society
- Quality improvement to enhance global competitiveness.

DEPARTMENT OF COMPUTER SCIENCE

The Department of Computer Science, within a short span of twenty-seven years, has built a versatile system to train IT professionals and entrepreneurs who have succeeded in today's exceedingly competitive and rapidly changing environment. The department aims to inculcate in the students a culture characterized by integrity, mutual respect, enthusiasm and hard work. The students co-operate and compete to acquire a thorough knowledge of today's computer technology and to carve a niche in the IT industry. The family of students and teachers work in a perfect camaraderie to achieve this goal.

Courses offered:

- Ph. D.
- MCA
- PGDCSA

Department of Computer Science, Gujarat University is one of the earliest and among very few Computer Science Departments in Gujarat to introduce Ph.D Programme. Currently there are two recognized Ph.D. Guides (Dr. Savita R. Gandhi and Dr. Jyoti S. Pareek) at the Department in the subject of Computer Science.

Department also conducts number of teachers training programs, state and national level seminars and symposiums on regular basis.

Intake of Seats in PGDCSA: 33

Core Faculty

Sr. No.	Name	Qualification	Broad area of specialization
1.	Dr. Savita R. Gandhi Professor & Head	M.Sc., Ph. D., AASI	Artificial Intelligence and Soft Computing, Theory of Computation, Computer Graphics, Image Compression, Computer Oriented Numerical Methods, Discrete Mathematical structures, Network Security
2.	Dr. Jyoti Pareek Reader	M.Sc.(Comp.Sc.) Ph.D.(Comp.Sc.)	Natural Language Processing, e-learning, Programming, Object Oriented Analysis and Design, System Software, Software Engineering
3.	Shri Hiren Joshi Lecturer	M.Sc. (IT & CA)	Biometrics, Data Base Management Systems, Client Server Architecture, .Net
4.	Shri Hardik Joshi Lecturer	MCA, M.Phil.	Data Mining, Grid Computing, Operating System, Networking

The department has several vacant positions and the University is in process of filling up the same.

Infrastructure Facility

- **Computing facilities:**

Students have access to a LAN of 60 Pentium-IV machines with Windows and Linux Servers. Department has host of PC software packages and tools. Department also has other peripherals such as CD writer, Scanner, Zip drives, Laser printer, Inkjet printer, Dot matrix printers, Line printers etc.

- **Internet facilities:**

Students and faculty members of department have unlimited access to 2 Mbps VSAT ernet Internet connectivity. Also the entire Gujarat University Campus is Wi-Fi enabled for which Tata Indicom provides 512 Kbps Internet connectivity for each connection.

- **Library facilities:**

Students and faculty members of the department have access to well stocked department Library, over and above the Central Library of Gujarat University. Department has subscription to large number of e-books. The Department also has access to e-journals through UGC consortium.

- **Teaching aids:**

Department is well equipped with over head projectors, multimedia projectors and laptops to assist the classroom teaching, student presentations and guest lectures.

- **Health services:**

University Health Center offers basic health care Facilities to the staff and the students.

- **Hostel facilities:**

Limited hostel accommodation is available for boys and girls separately in the Gujarat University hostels.

THE PGDCSA COURSE

This course is full time course of one-year duration divided into two semesters. Duration of each semester is six months. Second semester in addition to other subjects comprises of two-month project to be carried out in industry.

Following is an outline of the new revised syllabus (implemented since 2008).

Semester I

- P.G.D.C.S.A. - 111: Fundamentals of Programming**
- P.G.D.C.S.A. - 112: Fundamentals of Computer Organization**
- P.G.D.C.S.A. - 113: Database Management Systems**
- P.G.D.C.S.A. - 114: Internet and Web Designing**
- P.G.D.C.S.A. - 115: Software Lab**

Semester II

- P.G.D.C.S.A. - 121: Data Structures**
- P.G.D.C.S.A. - 122: Object Oriented Concepts and Programming**
- P.G.D.C.S.A. - 123: Client-Server Architecture and Interfaces**
- P.G.D.C.S.A. - 124: Accountancy and Financial Management**
- P.G.D.C.S.A. - 125: Basic Networking & Network Administration**
- P.G.D.C.S.A. - 126: Structured & Object Oriented Analysis and Design**
- P.G.D.C.S.A. - 127: System Development Project** (Two month system development project at the industry after second semester)

Evaluation:

The students' performance will be evaluated at each semester in the following heads for each subject wherever applicable:

- | | |
|--------------------------|--------------------------|
| 1. Theory examination | 3. Practical / Viva voce |
| 2. Sessional examination | 4. Term Work |

They will also have to maintain complete record of assignments together with full solutions, which will be evaluated at the time of final examination by the external examiners. To pass a subject in any semester the candidate must obtain minimum 40% of marks in each head of the subject and 40% of the aggregate of the subject.

Award of Certificates:

The University will conduct each semester examination. The University will award the Post Graduate Diploma in Computer Science and Applications to successful candidates.

ADMISSION PROCESS

1. Eligibility for Admission:

The admission qualification is a second-class graduate in any discipline. Students should have considerable skill in logical and quantitative reasoning in the use of formulae and equations. Study of Mathematics at college level is desirable. The students of Universities other than Gujarat University will be required to obtain eligibility certificate according to Gujarat University rules. A candidate who has appeared at the final year (Bachelor's degree examination of any University recognized by the association of Indian Universities) shall be treated as provisionally eligible.

2. Number of Seats & Reservations:

Total number of seats and category wise break-up is shown in the table given below. However the candidates applying for reserved quota of SC/ST/SEBC must belong to Gujarat State only and the reservation will be as per the rules in force at the time of admission. Candidates claiming access to any one of these reservation categories must attach an attested copy of certificate from appropriate authorities designated by the Government of Gujarat. Moreover SEBC candidates shall have to produce, along with a caste certificate, a certificate of belonging to Non Creamy Layer in favor of the family of the candidate issued by a competent authority **on or after 1st April 2009**.

Physically Handicapped candidates must attach an attested copy of the certificate issued by a Civil Surgeon or a Resident Medical Officer in the absence of Civil Surgeon, in the prescribed Performa attached clearly stating nature of disability and percentage of disability. Only those Physically Handicapped candidates having their percentage disability in the range of 40% to 60% will be considered eligible for the benefit of seat reserved for Physically Handicapped candidate. However, their disability should not prevent them to complete necessary classroom and laboratory assignments, project/field work and work as a computer professional.

The following shows the break up of seats:

S.C. (7%)	S.T. (15%)	SEBC (including Widow/Orphan) (27%)	Physically Handicapped 3%	Graduates* From Gujarat Univ. (Minimum)	Graduates* From other Univ. Of Gujarat State (Maximum)	Graduates* From Uni. Outside Gujarat State (Maximum)	Total Seats
2	5	9	1	11	3	2	33

*Candidates graduating from Universities other than Gujarat University will be given admission in their respective Categories only if they score higher in the entrance test than the last candidate in the Gujarat University open category.

In case there is any change in allocation of seats as a result of the decision of appropriate authorities, the same will be implemented at the time of final admission.

3. Fee Structure:

The fee per year is around Rs. 3500/-. This will be payable in two installments Rs. 1800/- at the time of admission and the remaining in the second semester. The female students are exempted from paying the tuition fee amounting to Rs. 1500/- for the whole year.

4. Procedure for Application:

The candidates can purchase the admission prospectus along with the application form on payment of Rs. 250/- in cash from Cash Counter, Room No 19, Gujarat University, Ahmedabad. Candidate should submit the completed application form along with self-attested passport size photograph affixed on form and two copies of admit cards, together with self-attested copies of mark sheets of S.S.C., H.S.C., and degree examination (if passed) to The Head, Department of Computer Science, Rollwala Computer Centre, Gujarat University, Ahmedabad –380 009, in person during 9-00 a.m. to 12-00 noon and 2-00 p.m. to 5-00 p.m. on working days on or before last date of submission of forms as mentioned in the schedule. Forms will not be accepted on public holidays. While sending the forms by post, a self-addressed stamped (with Rs.5/-) envelope must be enclosed for quick return of acknowledgement.

At the time of acceptance of the application form, the candidate will be issued two admit cards after entering the seat number therein: one for the entrance test and the other for counselling. The candidate should ensure that he/she has collected the above admit cards before leaving the counter after submission of the application form. These Admit Cards should be carefully preserved and carried by the candidate at the time of entrance test and counselling.

5. Display of Seat Numbers for the Entrance Examination:

The details of the applicants including their seat numbers, name and category along with the Venue of the Examination will be displayed as per schedule after 5:00 p.m. in the Gujarat University Website (www.gujaratuniversity.org.in) as well as Department of Computer Science Website (www.rollwala.org) and at Rollwala Computer Centre. Candidate should verify the correctness of their details displayed and discrepancy if any should be brought to the notice immediately for rectification.

6. Entrance test:

1. The entrance test for PGDCSA will be conducted from 12:00 noon to 3:00 p.m. at notified venue on the date of Entrance test as mentioned in the schedule table.
2. Questions will be of objective nature, with each question having four alternative answers.
3. There will be negative marking of 25% of the marks allotted to the question for wrong answer.
4. The aspects to be covered will be Quantitative Ability; Analytical and Logical Reasoning; Language Ability; Mathematics/Business Mathematics/Statistics up to 12th standard of Gujarat HSC Board level.

7. Interviews:

The merit list of eligible candidates will show the category wise rank and the general (combined) rank of each candidate. The merit list and the schedule for counselling will be displayed in the Gujarat University Website (www.gujaratuniversity.org.in) as well as Department of Computer Science Website (www.rollwala.org) and at Rollwala Computer Centre as shown in the schedule. The short-listed candidates will have to appear for the personal interview on the day of counselling at time as specified in the merit list. The candidates are requested to confirm the date of counselling from the Gujarat University Website or from the notice board of Rollwala Computer Centre. The candidates not remaining present for interview as per the schedule will automatically lose their claim for the admission. They need to bring original certificates and required fees.

Documents to be produced for counselling and allotment of seats:

- (a) Mark sheets of SSC (10th Standard), HSC (12th Standard) or equivalent examinations.
- (b) Final Year Mark Sheet of graduation examination. First and Second year Graduation Mark sheets are also needed for verification.
- (c) The candidates who have applied against Physically Handicapped quota should bring a certificate issued by a Civil Surgeon, or a Resident Medical Officer in the absence of Civil Surgeon, in the prescribed Performa.
- (d) The SEBC candidates shall have to produce, along with the caste certificate, a certificate of belonging to Non Creamy Layer in favor of the family of the candidate issued by a competent authority on or after 1st April, 2009.
- (e) The SC, ST and SEBC (including Widow and Orphan) candidates must bring original certificates obtained from competent authorities of Gujarat State.
- (f) The male candidates should carry around Rs. 1800/- whereas female candidates should carry around Rs.1100/- in cash to deposit as fees immediately after grant of admission, failing which the candidate's seat will be forfeited and it will be offered to the next person on the merit list.

In case the graduation result of the candidate's university/authority is likely to be delayed, he/she should arrange for submission of the result confidentially by the University /authority to the Admission Committee, Rollwala Computer Centre, Gujarat University, Navrangpura, Ahmedabad – 380 009 before counselling.

8. Information Manual for PGDCSA Entrance Test

- **What kind of Examination will it be?**

The test will be entirely in English. It will be conducted in a single session without a break, on the date and time given on your Admit Card.

- **Sample Questions and Answers:**

Some sample practice questions are provided for your practice along with a sample answer sheet. Try to mark the answers, as you would do in the actual test. Check your answers with the correct answers given on the end of this Section. These practice questions cover most of the types of questions that will be asked in the actual examination. However, there may be some other varieties also.

- **How to mark your answer:**

Use **HB Pencil only** to fill up the circle and for other information use ballpoint pen. Refer to sample answer sheet given in this prospectus. After reading a question in the test book you should select the right answer, then go to the answer sheet and blacken the circle bearing the letter of the answer, against that particular question number.

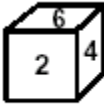
Mark your answer like this →



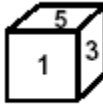
If you wish to change your answer, first ERASE completely the already blackened circle, then blacken the new circle bearing your revised answer letter. It is very important that you erase the old answer completely so that the machine does not read it as an intended response. More than one answer to any question will be rejected by the machine (Optical Mark Reader).

9. Sample Questions

1. A and B can do a piece of work in 45 and 40 days respectively. They began the work together, but A leaves after some days and B finished the remaining work in 23 days. After how many days did A leave?
(1) 6 days (2) 8 days (3) 9 days (4) 12 days
2. In a certain code BREAK is written as ASDBJ. How is SOLAR written in that code ?
(1) RPKBS (2) TPMBS (3) RPKBQ (4) TPKBQ
3. Choose the correct alternative which will replace the question (?) mark in the given series. 2, 15, 41, 80, ?.
(1) 111 (2) 120 (3) 121 (4) 132
4. If 'nitco sco tingo' stands for 'softer than flower'; 'tingo rho mst' stands for 'sweet flower fragrance and 'mst sco tmp' stands for 'sweet than smile', what would 'fragrance' stand for ?
(1) rho (2) mst (3) tmp (4) sco

5. Which of the following is an odd function?
 (1) $f(x) = 5$ (2) $f(x) = \sin x$ (3) $f(x) = 1 - x$ (4) $f(x) = x^2$
6. Sunil walks 20 metres towards North. He then turns left and walks 40 metres. He again turns left and walks 20 metres. Further, he moves 20 metres after turning to the right. How far is he from his original position?
 (1) 20 metres (2) 30 metres (3) 60 metres (4) 50 metres
7. $\int_0^{\pi} \frac{dx}{1 + \tan^4 x}$ is equal to
 (1) $\pi/2$ (2) $\pi/6$ (3) 0 (4) $\pi/4$
8. In an examination, 65% of the total examinees passed. If the number of failures is 420, the total number of examinees is
 (1) 567 (2) 693 (3) 1,000 (4) 1,200
9. In the following letter series some of the letters are missing. Complete the letter series by choosing the correct alternative.
 ab ____ aa ____ bbb ____ aaa ____ bbba ____
 (1) abba (2) baab (3) aaab (4) abab
10. Two positions of a block are shown below:
- 

(i)

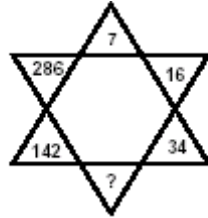


(ii)
- When 2 is at the bottom, what number will be at the top?
 (1) 1 (2) 3 (3) 4 (4) 5
11. What is the smallest positive value of x satisfying the equation
 $X^4 - 9X^2 + 8 = 0$
 (1) $1/4$ (2) 1 (3) 4 (4) $1/2$
12. Find out the odd one.
 (1) Deck (2) Quay (3) Bow (4) Mast
13. The difference between the compound interest and the simple interest on a certain sum at 5% per annum for 2 years is Rs. 1.50. The sum is
 (1) Rs. 600 (2) Rs. 500 (3) Rs. 400 (4) Rs. 300

14. There are five different houses, A to E, in a row. A is to the right of B and E is to the left of C and right of A. B is to the right of D. Which of the houses is in the middle ?

- (1) E (2) A (3) D (4) B

15. Find the missing number.



- (1) 72 (2) 70 (3) 68 (4) 66

16. The number of solid spheres of radius $\frac{1}{4}$ cm which may be formed from a solid sphere of radius 4 cm is

- (1) 9640 (2) 6904 (3) 4964 (4) 4096

17. Jungle : Zoo:: Sea: ?

- (1) Aquarium (2) Harbour (3) Water (4) Fishery

18. 'Umbrella' is related to 'Rain' in the same way as 'Goggles' is related to

- (1) light (2) Glare (3) Stare (4) Sight

19. How many triangles are there in the following figure ?



- (1) 9 (2) 10 (3) 11 (4) 12

20. A mixture contains milk and water in the ratio 5:1. On adding 5 liters of water, the ratio of milk and water becomes 5:2. The quantity of milk in the mixture is

- (1) 16 liters (2) 25 liters (3) 32.5 liters (4) 22.75 liters

Keys :

1. 3	2. 3	3. 4	4. 1	5. 2
6. 3	7. 1	8. 4	9. 2	10. 4
11. 2	12. 2	13. 1	14. 2	15. 2
16. 4	17. 1	18. 2	19. 4	20. 2

10. PERFORMA OF CERTIFICATE FOR PHYSICALLY DISABLED CANDIDATE FOR ADMISSION TO PGDCSA 2009

- 1 Full Name of the Candidate:
- 2. O P D Case No.:
- 3 (1) Nature of Disability

(To be mentioned in the box on the right side)
POLIO : CEREBAL PALCY
HEMIPLEGIA QUADRUPLEGLIA AMPUTATIONS.
CONGENITAL & AQUIRED DEFORMITY.
VISUAL IMPAIRED.
HEARING IMPAIRED.
OTHERS

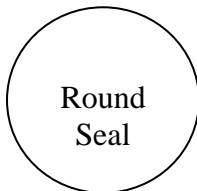
- (2) Extend of disability:
(To be mentioned in box on the right side)
BELOW 40% / 40% to 60% / Above 60% / TOTAL DISABILITY

- 4. Despite the disability whether the candidate is fit to carry out all activities
related to theory and practical works as applicable to Post Graduate Diploma in Computer Science and Applications course without any special concessions and exemptions. (Please state **YES or NO** in box on the right side)

I certify that Shri /Kum..... has been examined by me (Name of doctor & Designation) on/...../2009 and has been found physically disabled, and in my opinion he/she is in a position to undertake Post Graduate Diploma in Computer Science and Applications Course.

Outward No. :
Date :

Signature of competent authority
of Govt. Hospital (District or State Level)



STAMP

Countersigned by Medical Superintendent/Civil Surgeon of Govt. Hospital (District or State Level)

11. Instruction for Filling up Application Form

- Incomplete application forms will be rejected.
- Please tick or write your response as the case may be in the box/space provided in all the items of the Application Form.
- Make sure to collect BOTH the Admit Cards with the same seat numbers from the office when you submit your application form.
- You have to produce Admit Card (Examination Hall) in the Examination hall.
- Carry Admit Card (Counselling) at the time of Final Admission Process (Interviews).