



(Established under the Panjab University Act VII of 1947-
Enacted by the Government of India)

PROSPECTUS

PU-CET (P.G.) – 2013

Date of Test: 15th June to 18th June 2013

**Last date for the submission of Online Application
Form: 15-05-2013 (Wednesday)**

PU-CET (P.G.) FEE:
General Category Rs. 1600/-
SC/ST Category Rs. 800/-
Additional Form Rs. 700/-
(for each paper, if required)

PANJAB UNIVERSITY ANTHEM

तमसो मा ज्योतिर्गमयः
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पंजाब विश्वविद्यालय
तेरी शान-ओ-शौकत सदा रहे
मन में तेरा आदर मान
और मोहब्बत सदा रहे
पंजाब विश्वविद्यालय
तेरी शान-ओ-शौकत सदा रहे
तू है अपना भविष्य विधाता
पंख बिना परवाज़ सिखाता
जीवन पुस्तक रोज़ पढ़ा र
सही गलत की समझ बढ़ाता
जीवन पुस्तक रोज़ पढ़ा र
सही गलत की समझ बढ़ाता
तेरी जय ॥ शंख बजायें
रौशन तारे बन जायें
वख़री तेरी शोहरत
तेरी शोहरत सदा सदा रहे
पंजाब विश्वविद्यालय
तेरी शान-ओ-शौकत सदा रहे
पंजाब विश्वविद्यालय
तेरी शान-ओ-शौकत सदा रहे
तमसो मा ज्योतिर्गमयः
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Tamso ma jyotirgamaya:
Tamso ma jyotirgamaya:
Tamso ma jyotirgamaya:
Tamso ma jyotirgamaya:
Panjab vishaw vidyalaya
Teri shaan-o-shauqat sada rahe
Mann mein tera aadar maan
Aur mohabbat sada rahe
Panjab vishaw vidyalaya
Teri shaan-o-shauqat sada rahe
Tu hai apna bhavishya vidhata
Pankh bina parwaaz sikhata
Jeevan pustak roz padha kar
Sahi galat ki samajh badhata
Jeevan pustak roz padha kar
Sahi galat ki samajh badhata
Teri jai ka shankh bajayein
Roshan tare ban jaayein
Vakhari teri shohrat
Teri shohrat sada sada rahe
Panjab vishaw vidyalaya
Teri shaan-o-shauqat sada rahe
Panjab vishaw vidyalaya
Teri shaan-o-shauqat sada rahe

Tamso ma jyotirgamya:
Tamso ma jyotirgamaya:

PU-CET (P.G.) – 2013

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PANJAB UNIVERSITY, CHANDIGARH
Tentative Number of Seats in Various Courses

Sr. No.	Courses	Name of the Departments/Institutions offering the Course: and where the forms for admission after qualifying the entrance Test need to be submitted	No. of Seats (General including reserved seats)	Seats for Foreign Nationals/ NRI Candidates
1.	LL.M. (2-Year Course) (Semester System)	Department of Laws, P.U., Chandigarh.	42	4****
2.	i. M.C.A. (3 year course) (Semester System)	Department of Computer Science and Applications P.U., Chandigarh.	34+2*	05
		P.U., Regional Centre, Muktsar	20+2*	03
		Department of Computer Science, Swami Sarvanand Giri, P.U. Regional Centre, Hoshiarpur	50+3 ^{##}	-
	ii. M.C.A. (Evening) Self financing course	Department of Computer Science and Applications, P.U., Chandigarh.	46 +2*	06
3.	M.A. Journalism and Mass Communication (2-Year Course)	School of Communication Studies P.U., Chandigarh.	30	05
4.	Masters in Public Health	Centre for Public Health University Institute for Emerging Areas in Science & Technology, PU, Chandigarh	17+5*****	2
5.	M.A. (English)	Department of English, P.U. Chandigarh	94+6***	15
6.	M. Tech. (Instrumentation)	University Centre of Instrumentation & Microelectronics, P.U., Chandigarh.(UICM)	10+3 (SC/ST)	02
7.	M. Tech. (Nanoscience and Nanotechnology)	Centre for Nano Science & Nano Technology (UIEAST) P.U., Chandigarh	10+3 (SC/ST)	02
8.	M.E. (Chemical)	Dr. S.S. Bhatnagar University Institute of Chemical Engg. & Tech., P.U., Chandigarh	20	-
9.	M.Tech. (Polymer)		15+5 (Part time)	-
10.	M.Sc. (Industrial Chemistry)	Dr. S.S. Bhatnagar University Institute of Chemical Engg. & Tech., P.U., Chandigarh	17	-
		SGGS Khalsa College, Mahilpur (Hoshiarpur)	20	-
11.	M.E. (Instrumentation & Control)	NITTTR, Sector 26, Chandigarh	06	-
12.	M.E. (Electronics & Communication Engineering)	NITTTR, Sector 26, Chandigarh	08	-
		University Institute of Engg. & Tech., P.U., Chandigarh	20	02

13.	M.E. Information Technology (2 year course)	University Institute of Engg. & Tech., P.U., Chandigarh	20	02
14.	M.E. Computer Science and Engineering		20	02
15.	M. Tech. (Microelectronics)		12 +3 (SC/ST)	02
16.	Master of Business Economics (M.B.E.)	DAV College, Sector-10, Chandigarh	30	-
		GGDSD College Sector 32, Chandigarh	30	-
		Guru Nanak Girls College, Model Town, Ludhiana	30	-
		Arya College Ludhiana	30	-
17.	Master of Entrepreneurship and Family Business (M.E.F.B.)	GGDSD College, Sector – 32, Chandigarh	40	-
18.	M. Com. (Hons.)	University Business School, P.U., Chandigarh.	27	-
19.	M.Com (Business Innovation)	S.C.D. Government College, Ludhiana	40	-
20.	MBA (Commerce & Information Technology) MBACIT	MTSM College for Women, Ludhiana This course (MBACIT) is only for Girls	80	-
21.	Master of Physical Education	Department of Physical Education, P.U., Chandigarh	28	02
22.	Bachelor of Physical Education	Department of Physical Education, P.U., Chandigarh	34	02
M. Sc. (Hons. School)				
23.	Biochemistry	Department of Biochemistry, P.U., Chandigarh.	00	04
24.	Biophysics	Department of Biophysics, P.U., Chandigarh.	03	04
25.	Computer Science	Department of Computer Science & Applications P.U., Chandigarh	11	02
26.	Mathematics	Department of Mathematics P.U., Chandigarh	30	05
27.	Microbiology	Department of Microbiology, P.U., Chandigarh.	00	04
28.	Physics & Electronics***** (Self financing course)	Department of Physics, P.U., Chandigarh	20	
29.	Geology	Department of Geology, P.U., Chandigarh.	2	-
M. Sc. (2 year Course)				
30.	Bioinformatics	DAV College, Sector-10, Chandigarh	15	-
		GGDSD College Sector 32, Chandigarh	15	-
31.	Environment Science	Department of Environment and Vocational Studies, P.U., Chandigarh	20	03
32.	Human Genomics	National Centre for Human Genomics Studies & Research, P.U., Chandigarh	15	-
33.	Nuclear Medicine	Centre for Nuclear Medicine, P.U., Chandigarh	08	2
34.	System Biology and Bioinformatics	Centre for System biology and Bioinformatics P.U., Chandigarh	13	2
35.	Microbial Biotechnology	Centre for Microbial Biotechnology, P.U., Chandigarh	20	02
36.	Medical Physics*****	Centre for Medical Physics, P.U., Chandigarh	08	02

M. Sc. (Hons. School/ 2 years Course)				
37.	Biotechnology**	Department of Biotechnology, P.U., Chandigarh	5+2 (SC)	2
		DAV College, Sector 10, Chandigarh	15	
		GGDSD College, Sector 32, Chandigarh	15	
		SGGS College, Sector-26, Chandigarh	15	
		DAV College, Abohar	15	
		Guru Nanak Girls College, Model Town, Ludhiana	15	
38.	Botany	Department of Botany, P.U., Chandigarh	25	04
		S. Govt. College, of Sci. Education & Research, Jagraon (Ludhiana)	15	02
		Govt. Post Graduate College for Girls, Sector 11, Chandigarh	20	-
		Govt. Post Graduate College for Girls, Sector 42, Chandigarh	20	-
39.	Chemistry	Department of Chemistry, P.U., Chandigarh.	15	02
		Govt. Post Graduate College, Sector 11, Chandigarh	30	-
		Govt. Post Graduate College for Girls, Sector 11, Chandigarh	20	-
		S. Govt. College, of Sci, Education & Research, Jagraon (Ludhiana)	15	02
		DAV College, Abohar	25	
		Guru Nanak Girls College, M.T. Ludhiana	30	
		GHG Khalsa College, Gurusar Sadhar, Ludhiana	20	-
		SGGS Khalsa College, Mahilpur Hoshiarpur	30	
		DAV College, Sector-10, Chandigarh	30	
		JCDAV College, Dasuya (Hoshiarpur)	25	
40.	Physics*****	Department of Physics, P.U., Chandigarh	40	06
		DAV College, Sector 10, Chandigarh	20	-
		DAV College, Abohar	25	-
		Guru Nanak Girls College M.T. Ludhiana	30	
		JCDAV College Dasuya Hoshiarpur	25	-
		SGGS Khalsa College, Mahilpur, distt. Hoshiarpur (Punjab)	30	-
41.	Zoology	Department of Zoology, P.U., Chandigarh.	14	02
		DAV College, Abohar	25	-
		DAV College, Sector -10, Chandigarh	30	-
		JCDAV College, Dasuya, Hoshiarpur	20	-
		Govt. Post Graduate College for Girls, Sector 42, Chandigarh	20	-
		Govt. Post Graduate College for Girls, Sector 11, Chandigarh	20	-

- * For candidates who have studied computer science as one of the subjects for three years or the subject as a full course at the under graduate level.
- ** Only those students who have cleared B.Sc. with Biotechnology as elective/vocational subject are eligible.
- *** For students who have passed B.A. with Functional English.
- **** Foreign and original *bona fide* NRI students having done their graduation from other countries be exempted from Entrance Test for admission to LL.M. course from the session 2009-10.
- ***** The candidates appearing in Physics/ Physics & Electronics/Medical Physics courses are eligible for admission to these courses.

***** Only regular employees in Government organization and having atleast one year service experience be admitted under, "In-service" category. The candidate has to produce "No objection certificate" at the time of admission.

Economically weaker section

Eligible Foreign Nationals/Persons of Indian Origin/NRI Candidates, who are in India and desirous of seeking admission in this category, will compete amongst themselves for the seats created for them by appearing in the Entrance Test. Those residing abroad and applying from there will be required to produce the General Test Score of Graduate Records Examination (GRE) General. The fee structure for all such candidates will be prescribed by the Panjab University in the Admission Brochure. Foreign students shall have to comply with Visa and other requirements of the Govt. of India, U.T. Administration, Chandigarh as well as Panjab University, Chandigarh, as prescribed by them from time to time.

Important Notes Common to all the Courses

1. ***This prospectus is valid for only one Online Application form. A separate Online Application form is required to be submitted for the Entrance Test of additional course/s as each course will have separate merit list. The cost of an additional Online Application form is ₹ 700/- each.***
2. **The Online Application forms for General and SC/ST categories are priced differently. Please pay the correct fees to avoid complication at the time of admission. The cost of submitting additional form is the same for General and SC/ST categories i.e. ₹ 700/- each.**
3. ***This is an online prospectus for Entrance Test only.*** The information/instructions for admission to courses that are based on the entrance test are not contained herein.
4. Only the candidates who have ***passed or are appearing*** in the qualifying examination for a particular Course can apply for the Entrance Test.
5. The admission of candidates in the **Entrance Test** shall be provisional. It shall stand cancelled if the candidate fails to satisfy the requisite eligibility conditions by the date fixed for the purpose by the concerned Institution/Department/Centre
6. **The candidates shall have to apply for admission to the course (s) they are interested in, separately within the prescribed time limit, directly and independently to the respective institutions/departments/ centers in which they want to seek admission. This information for applying on line will be available as Hand Book of Information and on the University Website after the advertisement of the admission notice in the newspapers.**
7. **The exact number of seats available for various M.Sc. (Honours School) courses in the General category may vary depending upon the result of the B.Sc. (Honours School) of the respective department.**
8. It is likely that in Microbiology and Geology there may not be any seat vacant in the General including reserved category. The Test, however, will be held for both General and NRI Categories.
9. The result of the entrance test will be available on the University web site only. **No separate Result *Cards will be issued.***
10. **The University will publish merit list of the candidates for all courses on the basis of attainment of a minimum of 20% (15% in case of candidates belonging to Scheduled Castes/ Scheduled Tribes/Backward Classes) of aggregate of maximum marks in the entrance test taken as a whole.**
The cutoff marks for passing the Entrance Test for admission to MA (Journalism & Mass Communication) stands increased to 21 marks (33% of the total marks) from 13 marks out of 65 marks, as it is a professional course.
The pass percentage in case of entrance test in English stands increased to 35% (30% in case of candidate belonging to SC/ST/BC) w.e.f the session 2013-2014.
11. ***Candidates securing equal marks shall be bracketed together.*** Their ***inter-se*** merit will be determined by the Institution/Department/Centre to which they are seeking admission in accordance with the following criteria:
 - (i) A candidate getting higher percentage of marks in the qualifying examination shall rank higher in order of merit.
 - (ii) If the marks in qualifying examination are also the same then the candidate obtaining more marks in the immediate lower examination, shall rank higher in order of merit.
 - (iii) If two or more candidates secure equal marks in (i) & (ii) above, the candidate senior in age shall rank higher in the order of merit.

12. *The final merit for admission shall be computed by the concerned Departments/Institutes/ Centers after taking in to account the relative weight age for final merit for admission in respective courses. The relative weight ages as applicable to different departments are as follows:*

Course	Weight age (%)	
	Entrance Test	Qualifying Examination
LLM (Master of Laws)	50	50
M.C.A. (Master of Computer Application)	50	50
M.A. (Journalism and Mass Communication)	50	50
Master in Public Health	50	50
M.A. (English)	50	50
M. Tech. (Instrumentation)	50	50
M. Tech. (Nanoscience and Nano Technology)	50	50
M.E. (Chemical)	50	50
M.Tech. (Polymer)	50	50
M.Sc. (Industrial Chemistry)	50	50
M.E. (Instrumentation & Control)	50	50
M.E. (Electronics and Comm. Engg.)	50	50
M.E. (Information Technology)	50	50
M.E. (Computer Science and Engg.)	50	50
M. Tech (Microelectronics)	50	50
M.B.E.	50	50
M.E.F.B.	85	15*
M. Com (Hons.)	85	15*
M.Com (Business Innovation)	50	50
MBACIT	50	50
M.P.Ed (Master of Physical Education)	50	50
B.P.Ed (Bachelor of Physical Education)	50	50
M.Sc. (Hons. School) Biochemistry/ Biophysics /Computer Science/ Mathematics / Microbiology and Geology	50	50
M.Sc. (Two Year Course) Bioinformatics (being offered in the colleges affiliated to P.U.), Environment Science/ Human Genomics /Nuclear Medicine/ System Biology and Bioinformatics and Microbial Biotechnology/ Medical Physics/Physics & Electronics	50	50
M.Sc. (Hons. School / Two year Course) Biotechnology/ Botany/ Chemistry/ Physics /Zoology	50	50

* 7.5% marks for Group discussion and 7.5% marks for personal interview.

Note: *The candidates who have passed/appeared in the qualifying examination from any of the following universities (declared as fake by the UGC) are ineligible to appear in the Entrance Tests, as these institutions have been derecognized by the Panjab University.*

1. Maithlli University/ Vishwavidyalaya, Darbhanga, Bihar
2. Mahila Gram Vidyapith/ Vishwavidyalaya, (Women's University) Prayag, Allahabad (U.P.)
3. Varanaseya Sanskrit Vishwavidyalaya, Varanasi (U.P.), Jagatpuri, Delhi
4. Commercial University Ltd., Daryaganj, Delhi
5. Indian Education Council of U.P., Lucknow (U.P.)
6. Gandhi Hindi Vidyapith, Prayag, Allahabad (U.P.)
7. National University of Electro Complex, Homeopathy, Kanpur
8. Netaji Subhash Chandra Bose University (Open University), Achaltal, Aligarh (U.P.)
9. D.D.B. Sanskrit University, Putur, Trichi, Tamil Nadu
10. St. John's University, Kishanttam, Kerala
11. United Nations University, Delhi
12. Vocational University, Delhi
13. Uttar Pradesh Vishwavidyalaya, Kosi Kalan, Mathura (U.P.)
14. Maharana Partap Shiksha Niketan Vishwavidyalaya, Partapgarh (U.P.)
15. Raja Arabic University, Nagpur
16. Kesarwani Vidyapith, Jabalpur (M.P.)
17. Badaganvi Sarkar World Open University Educaiton Society, Gokak, Belgaum (Karnataka)
18. ADR-Centric Juridical University, ADR House, 8J, Gopala Tower, 25 Rajendra Place, New Delhi-110008
19. Gurukul Vishwavidyalaya, Vrindawan (U.P.)

Eligibility Conditions and Scheme of Test

Master of Laws (L.L.M. 2-Year Course) (Semester System)

Eligibility Conditions

The Entrance Test is open to all those candidates who have passed/appeared in the final year of LL.B. degree (3-Year Course) and B.A. LL.B. (Hons.) 5 year integrated course of the Panjab University **Or** an equivalent degree of another University recognized as equivalent to the Panjab University.

Scheme of Test

The duration of the Entrance Test will be of 1 hour and 30 minutes. The Entrance Test will be of 75 marks consisting of 20 marks for Constitution, 10 marks for Current Affairs and 45 marks for Other Laws as per the existing syllabus. There will be 75 multiple choice questions.

Master of Computer Applications (M.C.A. 3 Year Course) (Semester System) and (M.C.A. Evening Self Financing Course)

Eligibility Conditions

The minimum qualification for admission to the first year of the course shall be:

- i) A recognized first degree of minimum three years' duration in any discipline from Panjab University with at least 50% marks and with Mathematics at 10+2 or at graduation level (all three years);
Or
- ii) B.C.A. from Panjab University with 50% marks
Or
- iii) Any examination recognized by the Panjab University as equivalent to any of the above examinations i) or ii)

Scheme of Test

The test of 1 hour 30 minutes duration shall contain 75 Objective Type (Multiple choice questions with four responses i.e. A, B, C, & D) carrying one mark each. The questions will be based upon following four components:

Component	No. of Questions
1. Mathematics (10+2 level)	40
2. Computer Science	15
3. English	10
4. Reasoning & Aptitude.	10

M.A. Journalism and Mass Communication (Semester System/ 2-Year Course)

Eligibility Conditions

The Entrance Test is open to all such candidates who have

- (i) A Bachelor's degree obtaining at least 45% marks in the subject of Journalism and Mass Communication or Bachelor's degree in any subject attaining atleast 50% marks in the aggregate.
- (ii) BA/BSc with Honours in Journalism and Mass Communication.
- (iii) Master's Degree examination in any subject.

Scheme of Test

The test of 1 hour and 30 minutes duration will comprise of Objective & Subjective Type Questions for 65 marks out of the total 75 marks. The remaining 10 marks would be divided equally between the group discussion and interview to be held consequent to the entrance test. The test will be divided into five following components:

- 1. Article writing on current events
- 2. Precis writing
- 3. Feature, writing on personalities, reviews etc.
- 4. English Comprehension
- 5. Interpretative passage

Candidates who clear the entrance test have to apply afresh in the School of Communication Studies. The cutoff marks for passing the Entrance Test for admission to MA (Journalism & Mass Communication) is 21 marks (33% of the total marks) [increased from 13 marks out of 65 marks, as it is a professional course).

Master in Public Health

Eligibility Conditions

Bachelor's degree in any discipline with at least 50% marks from recognized University/Institute..

Scheme of Test

The duration of the Entrance Test will be 1 hour 30 minutes and it will consist of 75 multiple-choice questions of one mark each. There will be 25 from Biological Sciences, 10 from Social Sciences, 25 from Health Sciences, and Medical Vocabulary, 15 on Environment Sciences.

M.A. (English) (Semester System)

Eligibility Conditions

A person who has passed one of the following examinations from Panjab University or from any other University whose examination has been recognized equivalent to the corresponding examination of this University:

- i. B.A. with Honours in English
- ii. Bachelor's degree in any faculty with at least 50% marks in the aggregate.
- iii. Diploma in Physical Education examination or Postgraduate Diploma in Library Science after having passed B.A. or B.Sc.
- iv. B.A. (Pass)/B.Sc. (Pass) examination in full subjects obtaining at least 45% marks in the Elective English.
- v. Obtained B.A. degree through English only regulation obtaining at least 45% marks in the Elective English.
- vi. Obtained B.A. after passing examination in an Oriental Classical Language or a Modern Indian Language with at least 45% marks (out of the aggregate excluding the additional paper) at the Honours in Oriental Titles or Modern Indian Languages examination in English.
- vii. Master's degree examination in another subject or another Faculty.

- viii. B.A. examination under Social Service Regulations or under War Regulations and has subsequently passed in the subject concerned at the B.A. examination obtaining at least 45% marks.

- ix. B.Sc. (Hons. School).

The pass percentage in case of entrance test in English stands increased to 35% (30% in case of candidate belonging to SC/ST/BC) w.e.f the session 2013-2014.

Scheme of Test

The written Test will be of 1 hour and 30 minutes duration and will carry 75 marks and Test will include

- | | | |
|------|---|----------|
| I. | Views on unseen prose passage | 20 marks |
| II. | Critical appreciation of (a) Poem
(not more than 150 words each) | 25 marks |
| III. | The Short notes | 30 marks |

M. Tech. (Instrumentation) (Semester System)

Eligibility Conditions

B.E./B.Tech or equivalent degree in Computer/Chemical/Electrical/Electronics/ Mechanical/ Production/ Instrumentation/ Biomedical Engineering / M. Sc. In Physics or Electronics or Instrumentation with minimum 50% marks in the aggregate.

Scheme of Test

The duration of the Entrance Test will be 1 hour 30 minutes and it will consist of 75 multiple-choice questions of one mark each. The syllabus will be based broadly on the course contents generally covered during qualifying examinations.

M.Tech. (Nanoscience and Nanotechnology) (Semester System)

Eligibility Conditions

Bachelor's degree (4-years after 10+2) in Engineering/Technology, i.e. B.E. /B. Tech. (in any Branch).

Or

Master's degree in Physics/Chemistry/Biophysics/Biochemistry/Microbiology/Biotechnology/Nano Science/Electronics with minimum 50% marks in the aggregate.

Scheme of Test

The duration of the Entrance Test will be 1 hour 30 minutes and it will consist of 75 multiple-choice questions of one mark each. The syllabus will be based broadly on the course contents on fundamentals of Physics, Chemistry, Mathematics, Biology and Computer background covered during their qualifying exams including undergraduate level.

M.E. (Chemical)

Eligibility Conditions:

B.E./B. Tech. (04 years) or Five Year Integrated B.E. (Chemical) with MBA with CGPA of 6.75 or at least 60% marks in the aggregate (where % age marks are awarded) in the qualifying examination i.e. B.E. / B.Tech. (04 years) or Five Year Integrated B.E. (Chemical) with MBA in the appropriate discipline or any other equivalent qualifying degree as approved by the Syndicate. The candidate shall be admitted on the basis of the PU-CET (P.G.) merit conducted by Panjab University, Chandigarh.

GATE qualified candidates will be exempted from the PU-CET (P.G.) test. However, in case of eligible GATE qualified candidates the merit list will be as per the GATE score obtained and shall be offered the seat in the first instance.

Scheme of Test:

The duration of the Entrance Test will be 1 hour 30 minutes and it will consist of 75 multiple-choice questions of one mark each. The syllabus will be based broadly on the course contents covered during qualifying examinations.

M.Tech. (Polymer)

Eligibility Conditions:

B.E./B. Tech. (04 years) or Five Year Integrated B.E. (Chemical) with MBA with CGPA of 6.75 or at least 60% marks in the aggregate (where % age marks are awarded) in the qualifying examination i.e. B.E. / B.Tech. (04 years) or Five Year Integrated B.E. (Chemical) with MBA in the appropriate discipline or any other equivalent qualifying degree as approved by the Syndicate. The candidate shall be admitted on the basis of the PU-CET (P.G.) merit conducted by Panjab University, Chandigarh.

Or

Master Degree in Technical Chemistry/Applied Chemistry/Industrial Chemistry/Chemistry (with Mathematics upto Graduation) or an equivalent examination with at least 55% marks in the aggregate from Panjab University or any other University recognized by Panjab University as equivalent thereto.

GATE qualified candidates will be exempted from the PU-CET (P.G.) test. However, in case of eligible GATE qualified candidates the merit list will be as per the GATE score obtained and shall be offered the seat in the first instance.

Scheme of Test:

The duration of the Entrance Test will be 1 hour 30 minutes and it will consist of 75 multiple-choice questions of one mark each. The syllabus will be based broadly on the course contents covered during qualifying examinations.

M.Sc. (Industrial Chemistry)

Eligibility Conditions:

B.Sc (Three Year Course) with Mathematics and Chemistry as compulsory subjects/ B.Sc (Hons. School) / B.Sc (Industrial Chemistry) with Mathematics as Compulsory subject or any other equivalent examination as approved by the Syndicate, Panjab University, Chandigarh. A candidate seeking admission must have obtained a minimum CGPA of 6.25 or 55% marks (where %age marks are awarded) in the qualifying examination as mentioned above.

Scheme of Test:

The duration of the Entrance Test will be 1 hour 30 minutes and it will consist of 75 multiple-choice questions of one mark each consisting of 20 questions in Physics, 20 questions in Chemistry, 20 questions in Industrial Chemistry and 15 questions in Mathematics. The syllabus will be based broadly on the course contents generally covered during the qualifying examinations.

M.E. (Instrumentation & Control)

Eligibility Conditions

B.E. / B. Tech or equivalent in Instrumentation and Control/ Electronics/Electrical Engineering with atleast 60% marks in the aggregate from Panjab University or any other University recognised by Panjab University as equivalent thereto. Admission is on the basis of entrance test PU-CET (P.G.) to be conducted by the Panjab University and interview. GATE qualified candidates will be exempted from the PU-CET (P.G.) Test. However, in case of eligible GATE qualified candidates, the merit list will be as per the GATE Score obtained and shall be offered the seat at the first instance.

Scheme of Test

The duration of the Entrance Test shall be of 1 hour 30 minutes. The question paper will consist of 75 multiple choice questions from the syllabi prescribed for PU-CET (P.G.) 2013 M.E. (Instrumentation & Control). Each question will be of one mark.

M.E. (Electronics and Communication Engineering)

Eligibility Conditions

B.E. or B. Tech or equivalent in Electronics /Electronics & Communication Engineering /Electronics and Telecom Engineering with at least 60% marks in the aggregate from Panjab University or any other university recognized by Panjab University as equivalent thereto.

GATE qualified candidates will be exempted from the PU-CET (P.G.) Test. However, in case of eligible GATE qualified candidates, the merit list will be as per the GATE score obtained and shall be offered the seat at the first instance.

Scheme of Test

The duration of the Entrance Test will be 1 hour 30 minutes. The question paper will consist of 75 multiple-choice questions from the syllabi prescribed for PU-CET (P.G.) 2013 M.E. (Electronics and Communication Engineering). Each question will be of one mark.

M. E. (Information Technology /Computer Science & Engineering)

Eligibility Conditions

B.E. or B. Tech or equivalent in Computer Science and Engineering/Information Technology with at least 60% marks in aggregate from Panjab University or any other University recognized by Panjab University as equivalent thereto.

GATE qualified candidates shall be exempted from the PU-CET (P.G.) test. However, in case of eligible GATE qualified candidates, the merit list will be as per the GATE score obtained and shall be offered the seat in the first instance.

Scheme of Test

The duration of Entrance test will be 1 hour 30 minutes. The question paper will consist of 75 multiple-choice questions from the syllabi prescribed for PU-CET (P.G.) 2013 M.E. (Computer Science and Engineering and Information Technology). Each question will be of one mark.

M. Tech. (Microelectronics)

Eligibility Conditions

B.E./B.Tech. or equivalent degree in Computer Science and Engineering/ Electrical/ Electronics/ Microelectronics/ Electronics & Electrical Communications/ Electronics & Telecommunication/ Information / Instrumentation Engineering/ M. Sc. Applied Physics/ M.Sc. Physics with specialization in Electronics or M.Sc. in Electronics (as approved by AICTE) with minimum 60% marks in aggregate from Panjab University or any other University recognized by Panjab University as equivalent thereto.

GATE qualified candidates will be exempted from the PU-CET (P.G.) test. However, in case of eligible GATE qualified candidates the merit list will be as per the GATE score obtained and shall be offered the seat in the first instance.

First preference will be given to candidates with GATE (Electronics & Telecommunication Engineering).

Scheme of Test

The duration of the Entrance Test will be of 1 hour 30 minutes. The question paper will consist of 75 multiple-choice questions from the syllabi prescribed for PU-CET (P.G.) 2013 M. Tech. (Micro Electronics). Each question will be of one mark.

M.B.E. (Master of Business Economics) (Semester System)

Eligibility Conditions

- (i) A Bachelor's/ Master's degree in any discipline of the University or a Degree of any other University which has been recognized by the Syndicate as equivalent thereto, with not less than 50% marks in the aggregate.

Or

- (ii) Pass in the final examination conducted by (a) The Institute of Chartered Accountants of India, (b) The Institute of Cost and Works Accountants of India and (c) the Institute of Company Secretaries of India.

Scheme of Test

The question paper of 1 hour 30 minutes duration will consist of 75 Objective Type Questions (Multiple Choice) with four responses i.e. A, B, C & D carrying a total of 75 marks. The standard of the question paper shall be based on the latest syllabus prescribed for Bachelor's degree in Economics/Commerce of Panjab University (1st, 2nd and 3rd year together).

MEFB (Master of Entrepreneurship and Family Business) (Semester System)

Eligibility Conditions

- (i) A Bachelor's/Master's degree in any discipline of the University or a Degree of any other University which has been recognized by the Syndicate as equivalent thereto, with not less than 50% marks in the aggregate.

Or

- (ii) A pass in the final examination conducted by (a) The Institute of Chartered Accounts of India, (b) The Institute of Cost and Works Accountants of India and (c) The Institute of Company Secretaries of India.

Scheme of Test

The question paper of 1 hour 30 minutes duration will consist of 75 Objective Type Questions (Multiple Choice) with four responses i.e. A, B, C & D carrying a total of 75 marks. The question paper will include questions related to General Knowledge, Verbal/Reasoning ability, Data interpretation and Commerce/Economics.

M.Com. (Honours) (Semester System)

Eligibility Conditions

- a) B. Com. / B. Com. (Hons.)/BBA with not less than 45% marks in the aggregate.

Or

- b) B. Com. (Hons.) Degree with not less than 45% marks in the aggregate

Or

- c) A graduate with Honours in Economics or Mathematics or Statistics or Commerce with not less than 45% marks in the aggregate;

Or

- d) A graduate with 50% marks in the aggregate having offered either Economics, Mathematics, Statistics, Commerce, Computer Application, Information Technology or Computer Science as a subject in the examination. Provided that in case of candidates having Bachelors degree of the University through Modern Indian Languages [Hindi/Urdu/Punjabi(Gurmukhi Script)] and/or in a classical language (Sanskrit/Persian/Arabic) or degree of any other University obtained in the same manner recognized by the Syndicate; 50% marks in the aggregate shall be calculated by taking into account full percentage of marks in all the papers in Language excluding the additional optional papers, English and Elective subject taken together.

Or

- e) A pass of the Final examination conducted by the Institute of Chartered Accountants of India or England/Institute of Cost and Works Accountants of India or England/Institute Company Secretaries of India;

Or

- f) Any other qualification recognized by the Syndicate for this purpose.

Provided that a candidate who seeks admission on the basis of qualifications mentioned in (c), (d), (e) above shall be required to qualify within one year from the date of Admission (either with Semester-I examination or with Semester-II examination) in a special examination in two paper (s) on (i) Commercial and Taxation Laws and (ii) Accounting and Auditing, in accordance with the Syllabus as may be prescribed by the Senate. Further that the maximum marks shall be 100 in each paper and the pass marks shall be 35% as in B.Com examination. There shall be no internal assessment in these papers and marks in these papers will not be counted for the Semester Examination.

Scheme of Test

The Entrance Test of 1 hour 30 minutes duration shall comprise of one paper of 85 multiple choice (having four responses A, B, C & D) objective type questions of one mark each in the area of Accounting, Management, Laws and Economics.

Merit list

The admission will be made on the basis of the Entrance Test (85% weightage), Group Discussion (7.5% weight age) and Personal Interview (7.5% weightage). The result of the Entrance Test, however, will not be sent to the candidates but will be conveyed confidentially to the Chairman, University Business School (UBS) who will compile comprehensive result after the Group Discussion and Interview and notify the same on the department's notice board.

Note:

- (a) The number of candidates to be called for Group Discussion and Personal Interview will be equal to eight times the total number of seats of the course in each category or the actual number of eligible candidates whichever is lower;
- (b) Attendance in Group Discussion and Personal Interview is a must. If any candidate does not attend any one of the components, GD or PI, his / her candidature shall stand cancelled.

M.Com (Business Innovations) (Semester System)

Eligibility Conditions:

The Entrance Test for M.Com (Business Innovations) shall be open to all such candidates who possess the qualifications as mentioned below:

- (a) A Bachelor's degree in Commerce (B.Com) or Business Administration (B.B.A) with not less than 45% marks in the aggregate; OR
- (b) B.Com (Hons.) Degree with not less than 45% marks in the aggregate; OR
- (c) A graduation with Honours in Economics OR Mathematics OR Statistics OR Commerce with not less than 45% marks in the aggregate; OR
- (d) A graduation with 50% marks in the aggregate in any other discipline of the University or a degree of any other University which has been recognized by the Syndicate as equivalent thereto. Provided that in case of candidates having Bachelor's degree of the University through Modern Indian Languages (Hindi/Urdu/Punjabi/Gurumukhi script) and / or in a classical language (Sanskrit/Persian/ Arabic) or degree of any other University obtained in the same manner recognized by the Syndicate. 50% marks in the aggregate shall be calculated by taking into account full percentage of marks in all the papers in Language excluding the additional optional paper, English and the elective subject taken together;
- (e) A pass in the final examination conducted by the Institute of Chartered Accountants of India or England/ Institute of Cost Accountants of India or England;
- (f) A pass in the final examination conducted by the Institute of Company Secretaries of India; OR
- (g) Any other qualification recognized by the Syndicate for this purpose.

Scheme of Test:

The Entrance Test of 1 hour 30 minutes duration shall comprise one paper of 75 marks containing 75 Objective Type questions of multiple choices (having four responses A, B, C & D) carrying one mark each.

The Breakup of questions shall be as follows:

- | | |
|--------------------------|--------------|
| 1. General Knowledge | 15 Questions |
| 2. Business Aptitude | 20 Questions |
| 3. Quantitative Aptitude | 20 Questions |
| 4. Test of Reasoning | 20 Questions |

Merit

Admission to M.Com (Business Innovation) at S.C.D. Government College, Ludhiana shall be on the basis of the entrance test (Weightage 50%), and qualifying examination (Weightage 50%).

MBACIT (Master in Business Administration, Commerce and Information Technology)

Eligibility Conditions

BA /B.Sc. / B.Com. / any other Graduation Degree from Panjab University or any other University recognized by the Syndicate as equivalent thereto.

Scheme of Test

The question paper of 1 hour 30 minutes duration will consist of 75 Objective Type Questions (Multiple Choice) with four responses i.e. A, B, C & D carrying a total of 75 marks. The question paper will include 15 questions each on subject knowledge of Commerce, Economics, IT, Verbal ability/Reasoning and General awareness.

Master of Physical Education (M.P.Ed.) (2-Year Course/Semester System)

Eligibility Conditions

A person who has passed/appeared in any one of the following examinations:

- a) Candidates who have obtained at least 55% marks in the B.P.Ed. Degree/ B.Sc. degree in Physical education, Health Education and Sports from Panjab University and any other University recognized by Panjab University are eligible for admission.
- b) Bachelor's Degree of Physical Education (After graduation)/Post Graduate Diploma in Physical Education of Panjab University and any other University recognized by Panjab University obtaining not less than 55% marks.
- c) A Bachelor of Physical Education (Four Years Degree after 10+2) of Panjab University or any other University recognized by Panjab University obtaining not less than 55% marks.
- d) Any other qualification recognized by the Syndicate as equivalent to (a), (b) or (c).

Provided that the candidate admitted under any of the clauses (a) to (d) qualifies in the Standard Physical Efficiency Test.

Scheme of Test

The Entrance Test of 1 hour 30 minutes duration shall comprise one paper of 75 marks, containing 75 Objective Type questions of multiple choices (having four responses A, B, C & D) carrying one mark each. Questions will be based on the following three areas of Physical Education and Sports: (a) Aptitude (b) General Knowledge (c) Reasoning Ability.

Bachelor of Physical Education (B.P.Ed.) (1-Year Course/ Semester System)

Eligibility Conditions

A person who has passed/appeared in any one of the following examinations:

- a) Bachelor's Degree with Physical Education as an elective subject with 50% marks.
- b) Bachelor's Degree with Physical Education as an elective subject with 45% marks and participation in National or State or Inter – University competitions in sports or games or athletics recognized by Association of Indian Universities or Indian Olympic Association.
- c) Bachelor's Degree with 45% marks and having participated in National or State or Inter-University sports or games or athletics.
- d) For deputed in service candidates (i.e. trained physical education teachers/coaches) Graduation with 45% marks and at least three years of teaching experience.

Provided that the candidate admitted under any other clause (a) to (d) qualifies in the Standard Physical Efficiency Test.

Scheme of Test

The Entrance Test of 1 hour 30 minutes duration shall comprise one paper of 75 marks containing 75 Objective Type questions of multiple choice (having four responses A, B, C & D) carrying one mark each. Questions will be based on the following three areas of Physical Education and Sports: (a) Aptitude (b) General Knowledge (c) Reasoning Ability

M.Sc. (Hons. School) Biochemistry, Biophysics, Biotechnology, Botany, Chemistry, Microbiology, Mathematics, Physics, Physics & Electronics and Zoology (Semester Systems)

Eligibility Conditions

B.A./ B. Sc. (Pass or Honours) examination with 50% marks (45% marks in case of SC/ST/BC) of the Panjab University or any other examination recognized by the Panjab University as equivalent thereto with the subject desirous of seeking admission in M.Sc. (Honours School) Course as an elective subject for three years. For Entrance Test to **M. Sc. (Hons. School) Mathematics** B.A. / B. Sc. (General) with Mathematics from the colleges affiliated to Panjab University or from other Universities as recognized by the Panjab University. **Note:** B.Sc. (MLT) Course has not been made equivalent to B.Sc. (Hons. School) Biochemistry of Panjab University. The candidates who are already students of Panjab University Teaching Department and have passed/appeared/appearing in the B.Sc. (Honours School) final examination of the University during the current session in the relevant subject are not required to appear in the **M.Sc. (Honours School) Admission Entrance Test**. Their admission to the course shall be governed by the relevant rules and regulations of the University. **For M.Sc. (Hons. School) Biophysics** B.Sc.(H.S.) in Biophysics of Panjab University or B.Sc/B.Sc.(Hons.) in Biophysics/ Bioinformatics / Biotechnology of the Panjab University or any other examination recognized as equivalent or B.Sc. with i) Physics, ii) Chemistry and iii) any one of the subject from life sciences during all the three years of the graduation.

Scheme of Test

The question paper will be on the concerned subject for which the admission to M.Sc. (Honours School) is being sought by the candidate. It will consist of 75 Objective Type Questions (Multiple Choice with four responses i.e. A, B, C & D) carrying a total of 75 marks. The question paper will be of 1 hour 30 minutes duration. The standard of the question paper shall be based on latest syllabus prescribed for Bachelor's degree of Panjab University (1st, 2nd and 3rd year together) in the relevant subject

M.Sc. (Hons. School) Computer Science

Eligibility Conditions

BCA/B.Sc. (Hons. School) in Computer Science/ B. Tech. / B.E. (Computer Science/ Engineering) or any other examination recognized as equivalent thereto with 50% marks.

Scheme of Test

The Entrance Test will be of 75 marks. It will be of 1 hour 30 minutes duration consisting of 75 multiple choice questions of Computer Science subject at the level of examinations as mentioned in the eligibility conditions.

M.Sc. (Hons. School) Geology

Eligibility Conditions

For Vacant seats purely on merit i.e. B.Sc. 3 year course with Geology as one of the subject at least 50% marks (45% for candidates belonging to SC/ST/BC category) in the subject of the Geology in B.Sc. .

Scheme of Test

The Entrance Test will be of 75 marks. It will be of 1 hour 30 minutes duration consisting of 75 multiple choice questions (with only one correct answer).

M.Sc. (Two Year Course) Bioinformatics, Biotechnology, Botany, Physics, Chemistry, Medical Physics, Nuclear Medicine and Zoology (Semester Systems)

Eligibility for different courses

Bioinformatics:

Bachelor's degree in Science (General or Honours) with Bioinformatics, Biotechnology, Biochemistry, Biology, Botany, Chemistry, Electronics, Genetics, Life Science, Mathematics, Mathematics & Computing, Microbiology, Physics, Statistics, Zoology, Agriculture, Computer Science, Engineering, Medicine, Pharmacy and Veterinary Science with at least 50% marks (45% for candidates belonging to SC/ST/BC category).

Biotechnology:

Bachelor's degree (under the 10+2+3 pattern of Education) in Physical, Biological, Pharmaceutical, Agricultural, Veterinary or Fishery Sciences or Bachelor's degree in Engineering/ Technology, Home Science, Medicine (MBBS) from any University/ Institute recognized by the Panjab University. The candidate must have obtained at least 55% marks at the Bachelor's degree level.

Botany:

B.Sc. pass with Botany having at least 50% marks in the aggregate from Panjab University or from any other University recognized by Panjab University Syndicate as equivalent thereto.

Physics and Chemistry:

- a. B. Sc. Honours School examination of the Panjab University in the subject of M. Sc. Course
- b. B. Sc. examination of the Panjab University securing at least 50% marks in aggregate and with Physics & Mathematics for M.Sc. Physics Course and with Chemistry & Mathematics for M. Sc. Chemistry course along with anyone of the following subjects:- Biochemistry, Botany, Chemistry, Geology, Physics, Statistics, Zoology
Provided that a student who had not taken Mathematics as one of the subjects in B. Sc. examination may be admitted to M.Sc. (2-Year Course) in Chemistry on the condition that he passes an additional paper in Mathematics (50 hour course) in the first year examination securing at least 40% marks.

- c. Awarded B. Sc. Pass degree under the old B. Sc. Honours School regulations by the Syndicate on the recommendation of the Board of Control;
- d. B. Sc. Honours School examination in the subject of the M. Sc. from any other University recognized by the Syndicate as equivalent to (a);
- e. B. Sc. examination of any other University recognized by the Syndicate securing at least 50% marks in aggregate and with Physics and Mathematics for M. Sc. Physics course and with Chemistry and Mathematics for M. Sc. Chemistry course along with any one of the following subjects:-
Biochemistry, Botany, Chemistry, Geology, Physics, Statistics, Zoology.

Medical Physics

B.Sc. first class with physics as one of the core subject from recognized University.

The entrance test for Physics; Physics & Electronics and Medical Physics will be common.

Nuclear Medicine:

B.Sc. with at least 50% marks in the aggregate from Panjab University or from any other University recognized by the Syndicate or equivalent thereto with Physics and Chemistry (non-medical stream) or Chemistry and Biology (Medical stream) as Core subjects. Candidates having B.Sc. in Nuclear Medicine and Biophysics shall also be eligible.

Zoology:

B.Sc. with Zoology having at least 50% marks in the aggregate from Panjab University or from any other University recognized by the Syndicate as equivalent thereto.

Scheme of Tests for above courses

The scheme of the test for admission to M. Sc. (Two Year Courses) as given above offered at different colleges affiliated to Panjab University will be same as applicable for M. Sc. (Hons School) in the respective subjects except Bioinformatics. The candidates may be admitted to M.Sc. (Hons. School) at Panjab University Campus or affiliated colleges on the basis of final merit lists.

For M.Sc. Bioinformatics: The question paper will consists of 75 objective type questions (Multiple choice with four responses i.e. A, B, C & D) carrying a total of 75 marks. The question paper will be of 1 hour 30 minutes duration. The syllabi and standard for the question paper shall be the one as currently prescribed for Bachelor's Degree of Panjab University (1st, 2nd and 3rd year together).

M. Sc. Microbial Biotechnology (2- Year Course) (Semester System)

Eligibility Conditions

Candidates having Bachelors Degree from any field of Biological Sciences including Biotechnology is eligible.

Scheme of Test

The Entrance Test will be of 1 hour 30 minutes duration. It shall comprise 75 multiple-choice questions (with only one right answer) of one mark each. The questions will be based on fundamentals of Microbiology and Biotechnology.

Master's Degree Programme in Environment Science (2-Year Course) (Semester System)

Eligibility Conditions

Graduates from Science/Engineering stream or any other stream with Honours in Geography as one of the subjects from Panjab University or any other University recognized by Panjab University as equivalent thereto.

Scheme of Test

The Entrance Test will be of 1 hour 30 minutes duration. It shall comprise 75 multiple-choice questions (with only one right answer) of one mark each from the Botany, Chemistry, Geography,

Geology, Mathematics, Physics, Sociology, Statistics, Zoology and General Awareness subjects of graduation level. It shall attempt to test the intelligence, comprehension of the scientific principles and general knowledge expected of a science graduate.

M.Sc. (Human Genomics) (2-Year Course) (Semester System)

Eligibility Conditions

B. Sc. (Pass or Honours) under 10+2+3 pattern examination of the Panjab University or any other examination recognized by the Panjab University as equivalent thereto in Physical, Chemical, Biological, Pharmaceutical Sciences or Medicine with at least 55% marks.

Scheme of Test

The Entrance Test will be of 75 marks. It will be of 1 hour 30 minutes duration consisting of 75 multiple choice questions (with only one correct answer) of 1 Mark each from six disciplines representing Physics, Chemistry, Mathematics, Biology, Pharmaceutical Sciences and Medicine.

M.Sc. (Systems Biology and Bioinformatics) (2-Year Course) (Semester System)

Eligibility Conditions

Bachelor's degree in Science (General or Hons.) with Bioinformatics, Biotechnology, Biochemistry, Biology, Botany, Chemistry, Electronics, Genetics, Life Science, Mathematics, Mathematics & computing, Microbiology, Physics, Statistics, Zoology, Agriculture, Computer Science, Engineering, Medicine, Pharmacy and Veterinary Science with at least 50% marks (45% for candidates belonging to SC/ST/BC category).

(Subject to the approval of the Syndicate)

Scheme of Test

The question paper will consists of 75 objective type questions (Multiple choice with four responses i.e. A, B, C & D) carrying a total of 75 marks. The question paper will be of 1 hour 30 minutes duration. The syllabi and standard for the question paper shall be the one as currently prescribed for Bachelor's Degree of Panjab University (1st, 2nd and 3rd year together).

GENERAL RULES

1. The result of the entrance test shall, *ipso facto*, not entitle a candidate to get admission in an institution/department/centre concerned where he/she intends to seek admission. It will be the responsibility of the candidate to make sure about his/her eligibility and fulfillment of such other conditions as may be prescribed for admission in the rules and regulations of University/Institution concerned. Merely because a candidate is allowed to appear in the entrance test does not mean that he/she is eligible and his/ her appearance therein will not stop or debar the university/ institution concerned from satisfying itself about his/her eligibility at any subsequent stage.

Notwithstanding anything contained in this prospectus, the eligibility conditions for admission to any particular course, shall be governed by the respective rules/regulations as enshrined in the P.U. calendar, volumes I, II and III (latest editions) and / or the general guidelines for admissions/ Handbook of Information-2013 issued by the university and / or decisions of the university senate/ syndicate. In case of any conflict or inconsistency between the prospectus on one hand and the aforesaid Panjab University rules and regulations/ guidelines / Handbook of Information-2013 / decisions of Senate/ Syndicate, on the other, the latter shall prevail.

2. The Entrance Test will be held only in **CHANDIGARH** on the scheduled dates.
3. A candidate desirous of taking the Entrance Test should submit his / her fee in any branch of State Bank of India using website generated challan latest by 17-05-2013 (Friday) upto 4:00 p.m.;
4. ***Last date for submission of fee details (journal no.; branch code and date of deposit given by Bank) and uploading of photograph, signature with rest of the information on the website is 20.05.2013 (Monday).***
5. In no case the fee for the PU-CET (P.G.) 2013, once paid, shall be refunded.
6. In case of Objective Type question papers, the candidates shall be required to answer questions on the OMR Answer-sheet provided for the purpose only following all the rules/norms as stated on the Answer sheet. However, entrance test for admission to M.A. English and M.A. Journalism and Mass Communication shall not be on OMR sheet.
7. The Entrance test shall be in English Only.
8. In case of Objective Type question papers, the candidates shall be required to hand-over the Question booklet and OMR Answer sheet to the Centre Superintendent.
9. The candidates shall be required to hand over their OMR answer-sheets and the question paper in full to the Centre Superintendent. No page/part of the Question paper/OMR Answer Sheet is to be removed/torn/taken out of the Examination Centre under any of the circumstances, failing which the candidates shall be disqualified from the entire Entrance Test.
10. ***The use of calculators is not allowed*** in any subject/paper.
11. The University will provide logarithmic table. Borrowing or bringing along the log table or other such material is not allowed.
12. If any candidate who submits two online application forms for the same Course his/her candidature shall be cancelled.
13. The candidates must bring their own stationary items such as **Black Gel Pen. Borrowing of material inside the Test Centre is strictly prohibited.**

14. In case of Objective Type question papers, **rough work** should be done in the space provided for this purpose. No rough work shall be done on the OMR Answer Sheet under any circumstances.
15. In case of Objective Type Question Papers having OMR sheets, **there shall be NEGATIVE MARKING FOR WRONG ANSWERS i.e. marks will be deducted for wrong answers.** If for each correct answer 1 mark is to be awarded, for a wrong answer 1/4 mark will be deducted.
16. **There shall be no re-evaluation/re-checking/re-assessment of answer-sheets under any of the circumstances. Request for seeing the Question Booklet / answer-sheets/answer-books by the candidates shall not be entertained at all. The evaluation once done by the University shall be absolutely final.**
17. In case of Objective Type question papers, the candidate must ensure that the answers to the questions are attempted on the specifically prescribed OMR answer sheet only. No answer attempted on the question booklet will be considered for evaluation. Only those questions answered on the OMR sheet shall be taken into account.
18. Candidates securing equal marks will be bracketed together. Their *inter-se* merit will be determined by the institution to which they are seeking admission.
19. ***The candidates shall have to apply, within the prescribed time limit, directly and independently to the respective Institutions/Departments/Centers in which they want to seek admission. Application Forms along with the Handbook of Information will be available after advertisement of Admission Notice in the Newspapers.***
20. The admission shall be based on the relative merit of the candidates as determined by the marks obtained in the qualifying degree examination and the result of the Entrance Test being held in the year of admission, subject to such reservation and weightage as are prescribed in the rules of admission of the University Department/Institution/Centre concerned.
21. Carrying of any communication equipment such as **mobile phones / pager/ wireless set, scanner/ pen scanner/ camera or any such electronic / digital gadget etc** in the examination hall shall not be permitted and will lead to **disqualification**.
22. Candidates should not carry eatables, drinks etc. into the test centre. Smoking inside and around the Centre is not permitted.
23. Any candidate who creates disturbance of any kind during examination or otherwise misbehaves in or around the examination hall or refuses to obey the Superintendent/Deputy Superintendent/Assistant Superintendent /any other official on examination duty or changes his/her seat with any other candidate or occupies any seat, other than the one allotted to him/her shall be expelled from the examination hall. ***("Expulsion" for this purpose would mean cancellation of the Entire Entrance Test).*** The Centre Superintendent/Observer/any other authorized University Officer/Official shall be competent to expel a candidate from the examination centre.
24. Any candidate having in his possession or accessible to him/her paper/books or notes which may possibly be of any assistance to him or is found giving or receiving assistance, or copying from any paper/book or note or from anywhere else or allowing any other candidate to copy from his/her answer book or found writing on any other paper, questions set in the question paper, during examination or using or attempting to use any other unfair means or indulging in any kind of misconduct shall be expelled from the examination hall. ***("Expulsion" for this purpose would mean cancellation of the Entire Entrance Test).*** The Centre Superintendent/Observer/any other authorized University Officer/Official shall be competent to expel a candidate from the examination centre.
25. If any answer sheet of a candidate shows or it is otherwise established that he/she has received or attempted to receive help from any source in any manner or has given help or attempted to give help to any other candidate in any manner, the relevant answer-sheet shall be cancelled. The cancellation of the answer-sheet shall mean cancellation of all

answer- sheets of the Common -Entrance Test. The decision of the Controller of Examinations, Panjab University, Chandigarh in this regard shall be final.

26. ***If a candidate writes his/her name or puts any kind of identification mark or discloses his/her identity by any method whatsoever on the cover or anywhere else in the Question Booklet/Answer Sheet, the same shall be treated as cancelled. The cancellation of the answer-sheet shall mean cancellation of all answer-sheets of the Entrance Test. The decision of the Controller of Examinations, Panjab University, Chandigarh in this regard shall be final.***
27. Any person who impersonates a candidate shall be disqualified from appearing in any University examination including this examination for a period of five years, if that person is a student on the rolls of a recognized School or College or University. But if the person is not on the rolls of a recognized School or College or University, he/she shall be declared as a person not fit and proper to be admitted to any examination of the University for a period of 5 years and the case, if necessary, shall also be reported to the police for any further action in the matter. The candidate who is being impersonated shall also be disqualified for a period of Five Years from appearing in any examination of this University apart from any other action which the University may take against him, as deemed fit
28. If it is found that a candidate has knowingly or willfully concealed or suppressed any information/fact which renders him/her ineligible to take the Entrance Test, his/her result of the Test as also admission to a Institution/Department/Centre of the University, if granted, shall stand cancelled and he/she shall have no claim whatsoever against the Institution/Department/Centre concerned and the case, if necessary shall be reported to the police.
29. In order to avoid bias, the result of the entrance test in case of such course like Masters in Journalism & Mass communication where weightage of performance in Interview and/ or Group discussion is to be added shall remain confidential till the process of compilation is not completed.
30. If a dispute or controversy of any kind arises before, during or after conduct of Entrance Test, the decision of the Controller of Examinations, Panjab University, in all such cases, shall be final.
31. ***The candidates shall be admitted to the test only on the production of the Admit Card at the Test Centre. No candidate shall be allowed to take the test without the Admit Card under any circumstances. The candidates must retain the admit card with them till the admission process is over, since it will be required again at the time of counseling.***
32. ***The Admit Cards will be issued to the candidates only provisionally, at their sole risk and responsibility subject to the final confirmation of their eligibility at the time of admission. It is further clarified that the candidates shall be taking the test at their own risk and responsibility as far as their eligibility is concerned and the University shall, in no way, be responsible if they are found to be ineligible, later, leading to cancellation of their result or any other consequence(s) emanating from the same.***
33. No candidate is allowed to leave the examination hall/room before the expiry of half of the time allotted for the respective paper.
34. The result of the PU CET (P.G.) 2013 will be made available on the University website: <http://www.results.puchd.ac.in>.
35. “4-5 days after the test, the question papers and their keys will be put on the University website. The candidate can file their objections regarding discrepancies and accuracy of the key, in writing, within 48 hours of this announcement. The valid concerns thus expressed will be given due consideration while evaluation. If a candidate wishes to verify his/her result, he/she will be provided a photocopy of his/her answer sheet on payment of Rs. 10,000/- within 10 days after the declaration of the entrance test result and the office should process the whole procedure within

three working days. In case, a discrepancy is found in the result of the candidate, the result would accordingly be revised and the fee deposited will be refunded.

36. The final date by which Roll No will be available online is 31-05-2013 (Friday). Admit Card required to be downloaded from the website by the candidate using their own Login and Password (provided while generating Bank Challan). **There will be no physical communication for this purpose.**
37. No separate Result Card will be issued.
38. **The following functionaries may be contacted only in case of extremely urgent enquiry from 9.00 a.m. to 5.00 p.m. (on working days only)**
 1. **Assistant Registrar (C.E.T.)** **0172-2534829**
 2. **Controller of Examinations** **0172-2534811**
 3. **Coordinator {PU-CET (P.G.)}** **0172-2534229**
 4. **P.U., Main Enquiry** **0172-2534818, 2534819, 2534866**
39. **Ragging in any form is banned in Educational Institutions. If a student is found to have indulged in Ragging, strict action including expulsion from the Institution will be taken against that student.**
40. **For Blind Candidate:** The maximum qualification of a writer for a blind candidate for the PU-CET (P.G.) entrance test is 10+2. The writer should not have passed the mentioned qualification more than one year prior to the examination. The candidate should contact the Assistant Registrar, CET Cell one week before the commencement of the entrance test to fulfill all the formalities for the writer.

Instructions for giving Answers on OMR Answer Sheet

1. All questions are to be attempted on the answer sheet as per instructions printed on the question booklet and OMR Answer Sheet.
2. **The Answer Sheet is designed for computer evaluation. Please follow the instructions given on the answer sheet strictly otherwise it may make evaluation by the computer difficult. Any resultant loss to the candidate on the above account i.e. not following the instructions completely shall be of candidate only.**
3. Each question is followed by four answer choices labeled A, B, C and D. Select the answer you think is the best response and darken the bubble bearing the correct response label against the serial number of the question. For example if you think that the answer to question number 2 is D, then mark as follows:

Q. 2 ☐A ☐B ☐C ☒D

The Answer marked as under shall be considered as wrong:

or
or
or
or
or

☒A ☐B ☐C ☐D
 ☐A ☐B ☒C ☐D
 ☐A ☐B ☐C ☒D
 ☐A ☒B ☐C ☐D
 ☐A ☐B ☐C ☒D
 ☐A ☒B ☒C ☒D

4. For marking answers **use Black Gel Pen only to darken the corresponding circles.**
5. *If you do not want to answer any question, leave all the bubbles corresponding to that question blank. It will be considered as an unattempted question.*
6. Be very careful in filling in the bubble in the first instance since erasing or changing it will spoil the response and go to the disadvantage of the candidate.
7. In order to open the Question Booklet remove the paper band gently.
8. **Write your Roll Number on the answer-sheet as also on the Question Booklet, only in the space provided for the purpose and at no other place in the question Booklet and Answer Sheet.**
9. The use of log tables is permitted, **use of Calculator is not allowed.**
10. **Rough work** should be done in the space provided for this purpose. No rough work shall be done on the OMR Answer Sheet under any circumstances.
11. Penalty for wrong answers (**Negative marking**) will be applied i.e. marks will be deducted for wrong answers. If for each correct answer 1 mark is to be awarded, for a wrong answer $\frac{1}{4}$ marks will be deducted. For example, these marks will be calculated as under:
 P = Number of correct answers.
 Q = Number of wrong answers
 R = Number of unattempted questions
 (An unattempted question means all the bubbles corresponding to that question are left blank).

It will also be checked that **$P + Q + R = \text{Total marks allotted to the Paper.}$**

Final Score = $P - \frac{1}{4} Q$ (calculated to the second place of decimal)

Sample questions

Sample Questions for LL.M.

Part - I: Constitutional Law and Current Affairs

1. The doctrine of "Basic Structure of the Constitution" was propounded by the Supreme Court of India in
A) Shankari Prasad v. Union of India, AIR 1951 SC 458
B) Golaknath v. State of Punjab, AIR 1967 SC 1643
C) Kesavananda v. State of Kerala, AIR 1973 SC 1461
D) Minerva Mills v. Union of India, AIR 1980 SC 1789
2. The President of India may make a proclamation under Article 356 as to the breakdown of constitutional machinery in a State.
A) When he is personally satisfied as to them circumstances.
B) When he is advised by the Prime Minister to do so.
C) When he is advised by the Union Council of Ministers.
D) When he receives a report from the Chief Election Commission.
3. The President of India, in the matters of appointment of Judges of a High Court :
A) Is not obliged to consult any Judge of Supreme Court or High Court.
B) Is bound by the advice of the Governor of a State
C) Must give primacy to the opinion of the Chief Justice of India.
D) Is not bound to consult the Chief Justice of India.
4. Right to education has been included in the constitution by
A) 86th Amendment
B) 100th Amendment
C) 87th Amendment
D) 94th Amendment
5. Ordinance can be promulgated by the president of India if,
A) Both the Houses of Parliament are in session
B) Both the Houses of Parliament are not in session
C) Either of the Houses is not in session.
D) None of the above.
6. How many amendments have been carried out in constitution of India?
A) 109
B) 106
C) 99
D) 94
7. The tenure of Jammu and Kashmir Assembly is
A) 5 Years B) 6 Years
C) 7 Years D) None of the above
8. The attempt to suicide is no more punishable. Which section of the IPC was declared unconstitutional and hence void by the Supreme Court in April, 1994?
A) 302
B) 303
C) 304
D) 309
9. The newly elected President of USA Barack Obama belongs to which political party.
A) Republican
B) Democratic.
C) Communist
D) None of the above
10. Since August 1994, the rupee has been made fully convertible in :
A) The capital account
B) The capital and saving account
C) The saving account
D) The current account

Part– II: Substantive Law

Commercial Law (Law of Contract and Company Law)

1. A contract entered into without 'Free Consent' is :
 - A) Void
 - B) Voidable
 - C) Valid
 - D) Illegal
2. Property insurance is a contract of :
 - A) Indemnity
 - B) Contingent contract
 - C) Wagering agreement
 - D) Guarantee
3. Creditor, on default by the principal debtor, can file suit against:
 - A) Secured property
 - B) Principal debtor alone
 - C) Surety and principal debtor;
 - D) All the above jointly.
4. A company is a Government Company only if :
 - A) All the shares of the company are held by Central or State Government;
 - B) At least 25% of Shares are held by Central or State Government;
 - C) Majority of Shares are held by Central or State Government or both;
 - D) Majority of Directors are appointed by the Central or State Government
5. Annual general meeting of a company is to be held with a gap between two consecutive meetings of successive years;
 - A) Of not more than twelve month;
 - B) Of not more than twenty four months;
 - C) Of not more than fifteen months;
 - D) Any time but less than twenty four months

Family Law

1. Which of the following is valid marriage under the Hindu Marriage Act. 1955?
 - A) H, a male Hindu aged 35 marries W who is a deserted wife of B, who had filed a suit for divorce and suit is still pending
 - B) H, a male Hindu aged 36 marries a second wife with the consent of his first wife who has not been able to have a child for the last 10 years
 - C) H, a Brahmin Male aged 30, marries a Buddhist girl aged 18
 - D) H, an idiot male Hindu aged 27 marries W, a Hindu female Lunatic
2. Which of the following is valid adoption under the Hindu Adoption & Maintenance Act, 1956?
 - A) H, a male Hindu aged 26 adopts a daughter aged 6
 - B) H, a male Hindu and his wife adopt a son aged 16
 - C) H, a male Hindu aged 40 adopted a son aged 5, after his natural born son migrated to the U.S.A.
 - D) H, a Hindu bachelor aged 25 adopts a son aged 3
3. Which of the following is Hindu under the Hindu Law?
 - A) A is born of Hindu father and Christian mother and brought up as a Christian
 - B) A is born of Hindu father and Buddhist mother
 - C) A is born of Muslim father and Parsi mother'
 - D) A is born of Christian father and Muslim mother
4. Which of the following relatives will succeed to the Property of H, a Hindu male under the Hindu Succession Act 1956 after his death?
 - A) Daughter
 - B) Father
 - C) Brother
 - D) Sister
5. Which of the following is SAHI NIKAH (valid marriage) under the Mohammedan Law?
 - A) M, a Mohammedan male aged 30 married W, a Muslim woman under-going Iddat
 - B) M, a Mohammedan male aged 27, married W, a Muslim woman in a desert, without any witness
 - C) M, a Mohammedan male aged 35, married his wife's sister
 - D) M, a Mohammedan male aged 41, married W, a Muslim female aged 21 as second wife without the consent and against the wishes of his first wife

Law of Torts

1. The defense of *Volenti non fit injuria* is available in :
 - A) Rescue cases
 - B) Help cases
 - C) Negligence cases
 - D) Unlawful acts
2. The test of reasonable foreseeability was laid down in :
 - A) Re Polemis case
 - B) Donoghue v. Stevenson
 - C) Rylands v. Fletcher
 - D) Ashby v. White
3. There is physical harm to the plaintiff in :
 - A) Assault
 - B) Defamation
 - C) Nervous shock
 - D) None of these
4. Malice/evil motive is relevant in :
 - A) Negligence
 - B) Defamation
 - C) Vicarious Liability
 - D) Nuisance
5. Tort is :
 - A) A wrong against the Society
 - B) Statutorily defined in the Limitation Act
 - C) A codified branch of law
 - D) A civil wrong based on the agreed obligations

Legal Theory

1. Who observed that International Law is the vanishing point of jurisprudence?
 - A) Austin
 - B) Salmond
 - C) Starke
 - D) Holland
2. Identify the Jurist who defined Law as "the form of the guarantee of the conditions of life of society, assured by the states' power of constraint":
 - A) Roscoe Pound
 - B) Holmes
 - C) Ihering
 - D) Salmond
3. Realist theory of law emphasizes on:
 - A) Social function of law
 - B) Human factors in law
 - C) Social criterion of validity of law
 - D) Essentiality of law for social life
4. According to Hohfeld, the jural opposite of 'Power' in the context of his analysis of legal right in the wider sense is :
 - A) Liability
 - B) Disability
 - C) Duty
 - D) Immunity
5. Possession is said to be ownership on the defensive by :
 - A) Savigny
 - B) Salmond
 - C) Ihering
 - D) Gray

Public International Law

1. 'International Law may be defined in broad terms as the body of general principals and specific rules which are binding upon the members of the international community in their mutual relations'
 - A) Oppenheim
 - B) Lawrence
 - C) Brierly
 - D) Fenwick
2. 'The duties and rights of the States are only the duties and rights of men who compose them' :
 - A) Kelsen
 - B) Westlake
 - C) Hall
 - D) Starke
3. 'A State is, and becomes an international person, through recognition only and exclusively':
 - A) Oppenheim
 - B) Anzilotti
 - C) Holland
 - D) Pitt Corbett
4. "The rebus sic stantibus doctrine is one of the enigmas of International Law" who said
 - A) Starke
 - B) Edward Collin
 - C) Oppenheim
 - D) Anzilotti.
5. 'From the theoretical point of view, the provision for applying 'the General Principles of Law' has been regarded as sounding the death-knell of positivism':
 - A) Lauterpacht
 - B) C.C.Hyde
 - C) Starke
 - D) Triepel

Indian Penal Code

1. P, a Pakistani, fires at A, an Indian, standing on the no-man's land. A runs and dies on the Indian territory:
A) P has committed no offence
B) P is liable for murder
C) P is liable for attempt to culpable homicide
D) P is liable for attempt to grievous hurt.
2. With an intention to kill B administers sugar mistaking it for arsenic :
A) P has committed no offence
B) P is liable for attempt to murder
C) P is liable for culpable homicide
D) P is liable for grievous hurt.
3. P intentionally gives a sword cut to A. A subsequently dies of septic meningitis which developed on account of use of wrong remedies and neglect of treatment:
A) P is liable for murder
B) P is liable for culpable homicide
C) P is liable for grievous hurt
D) P is liable for simple hurt
4. P, a stoutly built man comes with a lathi in his hand. P picks up the bag of A who being weak person does not resist :
A) P is liable for theft
B) P is liable for robbery
C) P is liable for extortion
D) None of the above
5. P threatens A with a pistol and puts his hand in A's pocket which is empty :
A) P has committed no offence
B) P is liable for attempt to theft
C) P is liable for attempt to robbery
D) P is liable for attempt to extortion

Transfer of Property Act

1. Which of the following is a non-transferable property under the T.P.Act:
A) Actionable claim
B) Mortgagor's right to redeem
C) Lessee's right under the lease
D) Right of an occupancy tenant
2. The Supreme Court has held, that the rule of *lis pendens* equally applies to involuntary transfers, in the case of
A) Kedar Nath Vs. Sheo Narain AIR 1970 S.C. 1717
B) Narayana Rao Vs. Basavarajappa AIR 1956 S.C.727
C) Vidhyadhar Krishnarao Mungi Vs. Usman Gani Saheb AIR 1974 S.C.685
D) Beepathuma Vs. Velasari Shankra-Narayana Kadambolihaya AIR 1965 S.C.241
3. Where a mortgagor personally binds himself to repay; the mortgage money by a certain date and possession of the property is delivered to the Mortgagee, the mortgage shall be recognized as :
A) Simple mortgage
B) English mortgage
C) Usufructuary mortgage
D) Anomalous mortgage
4. The Transfer of Property Act applies to transfers :
A) By operation of Law
B) By act of parties
C) By the Government
D) By parties who are Muslims
5. The rule that every transaction involving transfer of property is to be treated as single unit is the basis of
A) The rule of apportionment
B) The rule of *lis pendens*
C) The rule of election
D) The rule of contribution

Industrial Disputes Act

1. The Industrial Disputes Act, 1947 aims at :
A) Providing social security benefits to the workmen
B) Regulating conditions of work in industries
C) Investigation and settlement of industrial disputes
D) Regulating the employment of women during certain periods
2. Retrenchment means :
A) Refusal by an employer to continue to employ a workman
B) Termination by the employer of the service of a workman for any reason whatsoever
C) Inability on the part of employer to provide employment to the workman
D) Voluntary retirement of a workman
3. The power of the Appropriate Government under Section 10 to refer industrial disputes for adjudication is :
A) An administrative power
B) Legislative power
C) Judicial power
D) Quasi-judicial power
4. Lockout is :
A) For trade reasons
B) An act on the part of employer taken to coerce or pressurize the labour
C) Not an intentional act
D) Not concerned with industrial dispute
5. Strike means :
A) Mere cessation of work
B) Cessation of work under common understanding
C) Cessation of work coupled with gherao of management
D) Slowing down production

Sample Questions for Master of Computer Applications (MCA)

1. Which of the following is NOT a language processor?
A) Compiler
B) Loader
C) Interpreter
D) Assembler
2. Which of the following is NOT an Internet protocol?
A) LTP
B) SMTP
C) HTTP
D) ATM
3. The sequence that is in ascending order in size is
A) bit, word, byte, nibble
B) nibble, byte, bit, word
C) nibble, bit, word, byte
D) bit, nibble, byte, word
4. Total number of ways in which four boys and three girls can sit in a row so that boys and girls have alternate seats is
A) 72
B) 144
C) 288
D) 720
5. If the word MANMOHANWASHERE corresponds to ZOAABVNBJOFVRFR, then the word that corresponds to LRF is
A) HEY
B) MAN
C) GOT
D) YES
6. Two persons Ram and Shyam sort the letters at constant rate. Ram sorts L letters in 60 minutes while Shyam takes 30 minutes to sort L letters. The total time taken by both of them in sorting L letters working together but independently is
A) 10 min
B) 20 min
C) 15 min
D) 45 min
7. The remainder obtained on dividing 2^{1680} by 1763 is
A) 1
B) 3
C) 13
D) 31
8. The area bounded by the curve $y = (x+1)^2$, its tangent at (1, 4) and the x-axis is
A) $1/3$
B) $2/3$
C) 1
D) $4/3$
9. The median of 25, 13, 4, 6, 3, 11, 15, 10 is
A) 4.5
B) 6.0
C) 10.5
D) 5.0

Sample Questions for M.A. Journalism and Mass Communication

1. Write about 150 words each on any two of the following: (16 Marks)

- a) American Presidential elections
- b) Budget 2008-09
- c) Patriotism in Indian Cinema
- d) Beijing Olympics 2008

2. Rewrite the passage in 200 words: (8 Marks)

It was a cold, windy, stormy, night where the wind was blowing very strongly. The driver of the truck was driving very fast on the wet road at a speed of over 150 km per hour. He did not see the branch of the tree lying on the wet road until he was almost upon it. He braked very hard. Because he braked very hard, the tyres skidded and he lost control and the truck crashed into the ditch on the side of the road.

Eye witnesses said that the truck was being driven at very high speed because of which the driver lost control. Fortunately no one was killed. The driver escaped with minor injuries as he managed to jump out of the truck before it turned turtle into the ditch.

Other than the fact of over speeding, blame can also be placed at the hands of the municipal authorities. The trees lining the stretch of the main road running through the city is lined by trees that are over a 100 years old. What compounds the problem is that these trees are not pruned and they are a source of danger not only to vehicles but also the pedestrians. Many representations have been made to the authorities to uproot these old trees that are many decades old and to replace them with young saplings, particularly of a species that has hard wood.

There is also no check post on this part of the road to check over speeding. This can prove dangerous especially on days that the weather is bad as people tend to drive very fast here as the stretch of the road here is straight and wide and people tend to over speed here. Also the streetlights also do not function always causing many accidents.

3. Write about 150 words each on two of the following: (16 Marks)

- A) Dr. Manmohan Singh
- B) Young Turks in Indian Politics
- C) Your role model
- D) Sachin Tendulkar

4. English Comprehension: (4 x 5 Marks)

(I). Use the following words in sentences: (5 marks)

- A) Criterion
- B) Fallacious
- C) Discrepancy
- D) Voluble
- E) Appease

(II). Use the following idioms/phrases in sentences: (5 marks)

- A) Success is somebody else's failure
- B) To be or not to be
- C) A moot point
- D) The pros and cons
- E) Every cloud has a silver lining

(III). If an underlined word or phrase is incorrect, choose that letter; if the sentence is correct, select No error. (5 marks)

1. The region has a climate so severe that plants growing there rarely had been more than twelve inches high. No error.

A
B
C
D
E
2. We admired his many attempts bravely to enter the burning building. No error.

A
B
C
D
E
3. We must regard any statement about this controversy, whatever the source, as gossip until they are confirmed. No error.

A
B
C
D
E
4. She is the only one of the applicants who are fully qualified for the position. No error.

A
B
C
D
E
5. That book is liable to become a bestseller because it is well written, full of suspense and very entertaining. No error.

A
B
C
D
E

- (III). Tick one of the options for filling in the blanks in each sentence: (5 marks)
1. In giving a speech, the speaker's goal is to communicate ideas clearly and _____, so that the audience will be in no _____ about the meaning of the speech.
 A) effectively ... haste
 B) indirectly ... distress
 C) unambiguously ... confusion
 2. The commission of inquiry censured the minister for his _____ expenditure of public funds, which they found to be _____.
 A) improper ... vindicated
 B) lavish ... unjustifiable
 C) arbitrary ... critical
 3. Pain is the body's early warning system: loss of _____ in the extremities leaves a person _____ injuring himself unwittingly.
 A) agony ... incapable of
 B) feeling ... habituated to
 C) sensation ... vulnerable to
 4. Fortunately, she was _____ her accomplishments, properly unwilling to _____ them before her friends.
 A) deprecatory about ... flaunt
 B) excited by ... parade
 C) uncertain of ... concede
 5. Although its publicity has been _____, the film itself is intelligent, well-acted, handsomely produced and altogether _____.
 A) tasteless ... respectable
 B) perfect ... spectacular
 C) sophisticated ... amateur

5. Interpretative passage

(5 Marks)

The most curious fact about the detective story is that it makes its greatest appeal precisely to those classes of people who are most immune to other forms of daydream literature. The typical detective story addict is a fairly successful professional man with intellectual interests and well read in his own field, who would never read gossipy movie magazines or comics. It is sometimes said that detective stories are read by respectful, law-abiding citizens in order to gratify, in fantasy, the violent wishes they dare not translate into action, but it is quite false. Detective fiction is a work of art where the author skillfully holds the attention of the reader, never letting him be sure, making him suspect every character by turn, until the last page, where the real culprit is revealed. All classics in detective fiction, 'Crime and Punishment', 'The Trial' etc. are examples of this. Of course, there is pulp literature also where the authors just churn out cheap stories based on a standard formula of sex, blood and violence.

- I) The word "curious" in line 1 means:
 A) Inquisitive
 B) Unusual
 C) Prying
- II) The author asserts that readers of detective fiction are:
 A) People bent on satisfying an unconscious thirst for blood
 B) Dreamers unable to face the monotony of everyday reality
 C) Believers in a story well told
- III) The opening paragraph suggests that the author considers movie magazines and comics to be:
 A) Sources of factual data about society
 B) Less addictive than detective fiction
 C) The typical literary fare of professionals
- IV) The author's attitude to detective fiction can best be described as:
 A) Profound veneration
 B) Genuine appreciation
 C) Aloof indifference
- V) The author emphasizes classic detective fiction as one that is:
 A) Free of cheap gimmicks
 B) Marked by suspense
 C) Moves in a chronological manner

SAMPLE QUESTIONS FOR MASTER OF PUBLIC HEALTH

- Q1) Which is the source of Chlorofluorocarbons?
A. Thermal Power Plants
B. Automobiles
C. Refrigeration and Air – conditioning
D. Fertilizers
- Q2) Among cereals and millets richest source of calcium is:
A. Rice
B. Bajra
C. Maize
D. Ragi
- Q3) Bissinosis is common in:
A. Farmers
B. Textile Industry
C. Gold mine
D. Cement factory
- Q4) The most populous state in India is:
A. Uttar Pradesh
B. Bihar
C. Madhya Pradesh
D. Kerala
- Q5) A doctor suggested to a couple not to have more than one child because of
A. Rh+ male Rh- female
B. Rh- male Rh+ female
C. Rh+ male Rh+ female
D. Rh- male Rh- female
- Q 6) Acquired immunity is found in
A. Invertebrates
B. Vertebrates
C. Some Invertebrates
D. Both vertebrates and invertebrates
- Q 7) The incubation period of rabies ranges from –
A. 1 to 2 days
B. 3 to 4 days
C. 5 to 6 days
D. 10 days to 1 year
- Q 8) At birth immunization required is
A. BCG and OPV-O
B. DPT-1
C. DPT-1 and OPV-1
D. Measles
- Q9) Anthracosis is caused due to
A. Coal Dust
B. Silica
C. Fe
D. Tobacco
- Q 10) Gini Index is associated with
A. Distribution of diseases
B. Distribution of Income
C. Distribution of deaths
D. Distribution of pollutants

Sample Questions for M.A. (English)

- Q. 1. Read the following passage and give your views, both for and against, the ideas expressed in it in not more than 250 words. Mere reproduction of the ideas would not be given any credit.

(20 marks)

Past centuries were replete with prophets predicting the end of days some of whom managed to convince thousands of followers. Many gave away all their possessions in preparation. Yet, when the great disappointment, as it has been called, happened, it did not destroy faith in such a future event. People argued that the calculations were wrong, and made new predictions, and that pattern recurs, as was seen recently when the American preacher, Harold Camping, predicted May 21, 2011 as the day for Rapture, the evangelical Christian end of the world event. It might have been assumed that such beliefs in past centuries were due to unscientific ignorance, and modern progress would diminish them. Yet an audience remains for them who, far from being persuaded by science, simply co-opt the parts science that help them reinforce their belief. Computers crunch biblical numbers to make more accurate apocalyptic estimates. New geological knowledge, of plate tectonics and climate change, simply lead to even more detailed descriptions of the end.

- Q. 2. Attempt a critical analysis of the poem given below in the terms of its language, tone and arrangement of emotion therein in about 250 words. mere paraphrase of the poem would not be given any credit.

(25 marks)

Elephants sway in my mother's English –
Pleased to meeting you she says
the multiple suffixes of her mother tongue
affix themselves to her meter: *Okay-na!*
In Malayalam, vowels sit like an egg
on tongue, ant to aardvark. Her voice vies
against drumkit English,
hums with the rhythm of amridangam.
In English, the word Malayalam
reads the same from left to right as
right to left – a mirror of contentment.
If only other words were so settled.
My mother worries about the pale clusters
on her last mammogram.
Breast cancer is very popular now.
Common, I say, not popular.
Yes, she says, very popular.
Our other tongue is this silence.
A hush,
a blank face
pressed against the glass

- Q. 3. Attempt any **four** of the following in about 150 words each:

(30 marks)

1. What is Literature?
2. What is Novel?
3. What is Dramatic Monologue?
4. What is Myth?
5. What do you mean by the term 'Narrative'?
6. What is Translation?

Sample Questions for M.Tech. (Instrumentation)

- Which amplifier will be proffered for highest gain?
A) Darlington's pair
B) Single stage amplifier
C) Cascade amplifier
D) Depends upon the circuitry
- Which piezoelectric material is used in RF oscillators?
A) Rochelle Salt
B) Quartz
C) Tourmaline
D) Any of the above
- One way to measure the quality of a D/A converter is its
A) Power consumption
B) Repeatability
C) Resolution
D) Setting time
- Transfer function can be obtained from
A) Analogous table
B) Standard block system
C) Output-input ratio
D) Signal flow graph
- The frequency stability of a crystal oscillator depends on
A) Crystal
B) Tuned circuit
C) Both crystal as well as tuned circuit
D) None of the above
- A capacitor behaves to D.C. as
A) Short-circuit
B) An open circuit
C) It behaves to A.C.
D) None of these
- The ASCII code is
A) 5-bit code
B) 7-bit code
C) 9-bit code
D) 11-bit code
- Dynamic memory cells are constructed using
A) FETs
B) MOSFETs
C) Transistors
D) Flip-flops
- The fastest logic family used in high speed applications is
A) DTL
B) TTL
C) ECL
D) RTL
- In record of electrical activity of the heart by ECG instrument, the electrical potential is
A) 0.1 to 4mV
B) 5mV to 10mV
C) 10mV to 1V
D) None of the above

Sample Questions for M.Tech. (Nanoscience and Nanotechnology)

- 5g of steam at 100°C is mixed with 15g ice at 0°C. The temperature of mixture will be
A) 100 °C
B) 90°C
C) 95 °C
D) 90°C
- An ideal Carnot engine with 40% efficiency receives heat at 500K. What is the intake temperature for 50% efficiency, temperature of exhaust remaining the same?
A) 800K
B) 300K
C) 600K
D) 900K
- Thermal energies are of the order of
A) .03eV
B) 1eV
C) 1MeV
D) 3eV
- Two coherent monochromatic light beams of intensities '1' and '41' are superposed. The maximum and minimum possible intensities are
A) 51, 1
B) 91, 31
C) 91, 1
D) 51, 31
- A ray of light is incident on a glass plate at an angle of incidence equal to Brewster's angle ϕ . If μ represents the refractive index of glass with respect to air, then angle between reflected and refracted rays is:
A) 90°
B) $\sin^{-1}(\mu \cos \phi)$
C) $90^\circ + \phi$
D) $90^\circ - \sin^{-1}(\cos \phi) / \mu$
- Which one of the following gate can be used as an inverter?
A) AND
B) EX-OR
C) OR
D) None of these
- BCD representation of $(142)_8$ is
A) 10011000
B) 000101000010
C) 1100010
D) 10001110
- Which class of amplifier has the lowest efficiency?
A) Class A
B) Class AB
C) Class B
D) Class C
- The greatest negative number which can be stored in a computer using 2's complement arithmetic is
A) -256
B) -255
C) -128
D) -127
- What is the minimum number of NAND gates required to build an EX-OR gate?
A) 2
B) 4
C) 5
D) 7

Sample Questions for M.E. (CHEMICAL)

1. One mole of Nitrogen at 8 bar and 600K is contained in a piston-cylinder arrangement. It is brought to 1 bar isothermally against a resisting pressure of 1 bar. The work done (in Joules) by the gas is
 - (a) 30554
 - (b) 10373
 - (c) 4988.4
 - (d) 4364.9

2. For water at 300°C, it has a vapour pressure 8592.7 kPa and fugacity 6738.9 kPa. Under these conditions, one mole of water in liquid phase has a volume 25.28 cm³, and that in vapour phase 391.1 cm³. Fugacity of water (in kPa) at 9000 kPa will be
 - (a) 6738.9
 - (b) 6753.5
 - (c) 7058.3
 - (d) 900

3. A dilute aqueous solution is to be concentrated in an evaporator system. High pressure steam is available. Multiple effect evaporator system is employed because.
 - (a) total heat transfer area of all the effects is less than that in a single effect evaporator system
 - (b) total amount of vapour produced per kg of feed steam in a multieffect system is much higher than in a single effect
 - (c) boiling point elevation in a single effect system is much higher than that in any effect in a multieffect system.
 - (d) heat transfer coefficient in a single effect is much lower than that in any effect in a multieffect system

4. Minimum reflux ratio in a distillation column results in
 - (a) Optimum number of trays
 - (b) Minimum reboiler size
 - (c) Maximum condenser size
 - (d) Minimum number of trays

5. An elementary liquid phase decomposition reaction $A \xrightarrow{k} 2B$ is to be carried out in a CSTR. The design equation is
 - (a) $k\tau = \frac{X_A}{(1 - X_A)}$
 - (b) $k\tau = X_A \frac{(1 - X_A)}{1 - X_A}$
 - (c) $k\tau = \frac{X_A}{(1 - X_A)}$
 - (d) $k\tau C_{AO} = \frac{X_A / (1 + X_A)^2}{(1 - X_A)^2}$

6. Match the following dimensionless numbers with the appropriate ratio of forces.
- | | Dimensionless Number | Ratio of forces |
|---|----------------------|--|
| P | Froude Number | 1. Shear force/internal force |
| Q | Reynolds Number | 2. Convective heat transfer/conductive heat transfer |
| R | Friction Factor | 3. Gravitational force/viscous force |
| S | Nusselt Number | 4. Inertial force/viscous force |
| | | 5. Inertial force/ gravitational force |
- (a) P-1, Q-2, R-5, S-3
 (b) P-5, Q-4, R-3, S-2
 (c) P-5, Q-4, R-1, S-2
 (d) P-3, Q-4, R-5, S-1
7. A process stream of dilute aqueous solution flowing at the rate of 10 Kg s^{-1} is to be heated. Steam condensate at 95°C is available for heating purpose, also at a rate of 10 kgs^{-1} . A 1-1 shell and tube heat exchange is available. The best arrangement is
 (a) counterflow with process stream on shell side
 (b) counterflow with process stream on tube side
 (c) parallel flow with process stream on shell side
 (d) parallel flow with process stream on tube side
8. The Reynolds Number of the liquid was increased 100 fold for a laminar falling film used for gas-liquid contacting. Assuming penetration theory is applicable, the fold-increase in the mass transfer coefficient (k_c) for the same system is:
 (a) 100
 (b) 10
 (c) 5
 (d) 1
9. A closed-loop system is stable when the gain margin is:
 (a) >1
 (b) <1
 (c) 1
 (d) Zero
10. The aerosols important in air pollution range from:
 (a) 0.01 to $100 \mu\text{m}$
 (b) $100 \mu\text{m}$ to $100 \mu\text{m}$
 (c) $0.001 \mu\text{m}$ to $0.01 \mu\text{m}$
 (d) $<0.001 \mu\text{m}$
11. The order of convergence in Newton-Raphson method is:
 (a) 2
 (b) 3
 (c) 0
 (d) 1
12. Runge-Kutta method is used to solve:
 (a) linear algebraic equations
 (b) linear simultaneous equations
 (c) ordinary differential equations of first order and first degree with given initial condition
 (d) partial differential equations

SAMPLE QUESTIONS FOR M.TECH. (POLYMER)

1. Polymer formed in cationic Polymerization has
 - a) narrow molecular weight distributions
 - b) medium molecular weight distributions
 - c) broad molecular weight distributions
 - d) general isotactic structure
2. Thermokol is the trade name of
 - a) high impact polystyrene
 - b) general purpose polystyrene
 - c) acrylonitrile-butadiene-styrene
 - d) expanded polystyrene
3. The order of convergence in Newton-Raphson method is
 - a) 2
 - b) 3
 - c) 0
 - d) 1
4. Runge-Kutta method is used to solve:
 - a) Linear algebraic equations
 - b) Linear simultaneous equations
 - c) Ordinary simultaneous equations of first order and first degree with given initial condition
 - d) Partial differential equations
5. For an isothermal process, pressure, P and Bulk Modulus, K is related as:
 - a) $K=P$
 - b) $K=\gamma P$
 - c) $K=P/\gamma$
 - d) $K=\gamma P/2$
6. Which one of the following fluids is essentially a non-Newtonian fluid under normal working conditions?
 - a) blood
 - b) thin lubricating oil
 - c) water
 - d) air
7. The pressure drop per unit length of a pipe under laminar flow condition is:
 - a) $\frac{32\mu V_{av}}{d^2}$
 - b) $\frac{128\mu Q}{\pi d^4}$
 - c) either (a) or (b)
 - d) none of these
8. The LMTD correction factor F_T :
 - a) increases with decrease in number of shell passes
 - b) increases with increase in number of shell passes
 - c) remains constant with the increase in number of shell passes
 - d) any one of the above, depending upon the type of exchanger.

9. In case of a packed tower, HETP varies with:
- a) type and size of packing
 - b) flow rate of each fluid
 - c) concentration of each fluid
 - d) all of above
10. For a binary mixture at constant temperature, with the increase of total pressure, the relative volatility:
- a) decreases
 - b) increases
 - c) remains constant
 - d) none of these
11. An irreversible first order reaction is carried out in a PFTR and CSTR of same volume. The liquid flow rates are same in each reactor. The relative conversion will be:
- a) less in pftr than in cstr
 - b) more in cstr than in pftr
 - c) less in cstr than in pftr
 - d) same in each reactor
12. Grizzlies are used for screening solid particles of:
- a) large size
 - b) small size
 - c) very small size
 - d) any one of the above

SAMPLE QUESTIONS FOR M.SC. (INDUSTRIAL CHEMISTRY)

Pick-up the correct option

- Q.1. If $U = \frac{x^4 + y^4}{x + y}$, show that $x \frac{\partial U}{\partial x} + y \frac{\partial U}{\partial y}$ is equal to
- (a) U
 - (b) 2 U
 - (c) 3 U
 - (d) 5 U
- Q.2. A body under the action of inverse square force will follow an elliptical path, if eccentricity
- (a) $e=0$
 - (b) $e=1$
 - (c) $e>1$
 - (d) $e<1$ (Positive)
- Q.3. If $\vec{B} = \text{curl } \vec{A}$, then
- (a) $\vec{\nabla} \cdot \vec{B} = 0$
 - (b) $\vec{\nabla} \cdot \vec{B} = 1$
 - (c) $\vec{\nabla} \cdot \vec{B} = A$
 - (d) $\vec{\nabla} \cdot \vec{B} = -1$
- Q.4. Which of the following is essential for observing diffraction?
- (a) Two coherent sources
 - (b) Screen
 - (c) A narrow Slit
 - (d) White light
- Q.5. The kinetic energy of a particle executing simple Harmonic Motion is maximum, when its displacement is equal to
- (a) Zero
 - (b) Amplitude / 2
 - (c) Amplitude / 4
 - (d) Amplitude
- Q.6. The number of NMR signals for the compound $\text{CH}_3\text{OCH}_2\text{CH}_3$ is
- (a) One signal (singlet)
 - (b) Two signals (one singlet, one multiple)
 - (c) Three signals (singlets)
 - (d) Three signals (singlet, quartet, triplet)
- Q.7. When Propane is treated with HBr in the presence of a peroxide
- (a) Bromopropene is formed
 - (b) n-propyl bromide
 - (c) Allyl bromide is formed
 - (d) None of these
- Q.8. A catalyst increases the rate of a reaction because
- (a) it provides the necessary energy to the colliding molecules to cross the energy barrier
 - (b) it decreases the heat of reaction
 - (c) it decreases the order of the reaction
 - (d) it provides a different path of lower activation energy
- Q.9. An azeotropic mixture of two liquids has boiling point lower than either of them when it
- (a) Shows no deviation from Raoult's Law

- (b) Shows positive deviation from Raoult's Law
- (c) Shows negative deviation from Raoult's Law
- (d) is saturated

Q.10 Gypsum is

- (a) calcium chloride
- (b) potassium sulphate
- (c) sodium sulphate
- (d) calcium sulphate

SAMPLE QUESTIONS FOR ME-INST. AND CONTROL

1. Which term applies to the maintaining of a given signal level until the next sampling?
 B. Holding
 C. Aliasing
 D. Shannon frequency sampling
 E. Stair-stepping
2. What does a Hall Effect sensor sense?
 A) Temperature
 B) Moisture
 C) Magnetic fields
 D) Pressure
3. Two copper-constantan thermocouples are connected such that the two constantan wires are joined together. The two copper wires are connected to the input of a low noise chopper stabilized differential amplifier having a gain of 1000. One of the thermocouple junctions is immersed in a flask containing ice and water in equal proportion. The other thermocouple is at a temperature T . If the output of the amplifier is 2.050V, the temperature T is
 A) 205°C
 B) 102.5°C
 C) 51.25°C
 D) 50°C
4. A second order feedback system is found to be oscillating with a high frequency. The oscillations
 A) Can be reduced by increasing the proportional action.
 B) Can be reduced by increasing the integral action.
 C) Can be reduced by increasing the derivative action.
 D) Cannot be reduced.
5. Addressing mode of the instruction-ORL A, @ R0 is:
 A) Direct
 A) Indirect
 C) Register
 D) Immediate
6. Which type of programming is typically used for digital signal processors?
 A) Assembly language
 B) Machine language
 C) C
 D) None of the above
7. A phase lag compensation coil
 A) Improves relative stability
 B) Increases bandwidth
 C) Increases overshoot
 D) None of the above
8. Which one of the following is Programmable Interrupt Controller?
 A) 8257
 B) 8254
 C) 8255
 D) 8259
9. RTDs are typically connected with other fixed resistors
 A) In a pi configuration
 B) In a bridge configuration
 C) And variable resistors
 D) And capacitors in a filter-type circuit
10. For a first order instrument a 5% settling time is equal to
 A) Three times the time constant.
 B) Two times the time constant.
 C) The time constant.
 D) Time required for the output signal to reaches 5% of the final value.

Sample Questions for M.E. in Electronics and Communication Engineering

1. Analytical instruments are used for:
 - A) Producing the semiconductor
 - B) Designing the VLSI Chips
 - C) Characterizing the semiconductor samples
 - D) Packaging of microelectronic devices
2. MOSFET is:
 - A) Bipolar device
 - B) Unipolar device
 - C) Current controlled device
 - D) Having low input impedance and high output impedance
3. In an FM wave, the side bands are spaced at intervals equal to
 - A) Twice the modulating frequency
 - B) Half the modulating frequency
 - C) Equal to the modulating frequency
 - D) Independent of the modulating frequency
4. CDMA stands for
 - A) Code Division Multiplexing Access
 - B) Collision Detection Multiple Access
 - C) Code Division Multiple Access
 - D) None of these
5. The gain of an inverting OP-Amp. Is
 - A) Always greater than 1
 - B) Always less than 1
 - C) Always equal to 1
 - D) Greater than or less than or equal to 1
6. An ideal Op-Amp draws
 - A) Zero current
 - B) Sum of the two input currents
 - C) Difference of the two input currents
 - D) Infinite current
7. The voltage gain of an amplifier is 100. On applying negative feedback with $\beta=0.03$, its gain will reduce to
 - A) 70
 - B) 25
 - C) 99.97
 - D) 3
8. Tuned voltage amplifier are not used
 - A) In public address system
 - B) Radio receivers
 - C) Where a band of frequencies is to be selected and amplified
 - D) In TV receivers
9. The current gain in BJT can be increased effectively by:
 - A) Using SIGE technology
 - B) Using high doping in the base
 - C) Using low doping in the emitter
 - D) Reverse biasing the output
10. Forward biasing the output the P-type semiconductors are
 - A) Positively charged
 - B) Neutral
 - C) Negatively charged
 - D) Having high concentration of electrons

Sample Questions for M.E. Computer Science & Engineering/ M.E. Information Technology

1. Which of the following is the name of the data structure in a compiler that is responsible for managing information about variables and their attributes?
 - A) Abstract Syntax tree
 - B) Symbol Table
 - C) Variable value stack
 - D) Parse tree
2. Seven (distinct) car accidents occurred in a week. What is the probability that they all occurred on the same day?
 - A) $1/7^7$
 - B) $1/7^6$
 - C) $1/2^7$
 - D) $7/2^7$
3. Which of the following statements is false
 - A) As unambiguous grammar has same leftmost and rightmost derivation
 - B) An LL (1) parser is top down parser
 - C) LALR is more powerful than SLR
 - D) An ambiguous grammar can never be LR (k) for any k
4. What will be the output of the following program?


```
void main()
{int var 1 = 10, var2 = 20, var3;
Var3 = var1++ + ++var2;
Printf("%d%d%d", var1, var2, var3);}
```

 - A) 10 20 30
 - B) 11 21 31
 - C) 10 21 30
 - D) 11 21 30
5. Which of the following data structures will allow mergesort to work in $O(n \log n)$ time?
 - I. A singly linked list
 - II. A doubly linked list
 - III. An array
 - A) III only
 - B) I and II only
 - C) II and III only
 - D) I, II and III

6. In the internet Protocol (IP) suite of protocols, which of the following best describes the purpose of the Address Resolution Protocol?
 - A) To translate Web addresses to host names
 - B) To determine the IP address of a given host name
 - C) To determine the hardware address of a given host name
 - D) To determine the hardware address of a given IP address
7. The binary relation $R = \{ (1,1), (2,1), (2,2), (2,3), (2,4), (3,1), (3,2), (3,3), (3,4) \}$ on the set $A = \{1,2,3,4\}$ is:
 - A) reflexive, symmetric and transitive
 - B) neither reflexive, nor irreflexive but transitive
 - C) irreflexive, symmetric and transitive
 - D) irreflexive and antisymmetric
8. Consider the following statements:
 - (i) First-in first-out types of computations are efficiently supported by STACKS
 - (ii) Implementing LISTS on linked lists is more efficient than implementing LISTS on an array for almost all the basic LIST operations
 - (iii) Implementing QUEUES on a circular array is more efficient than implementing QUEUES on a linear array with two indices
 - (iv) Last – in – first – out type of computations are efficiently supported by QUEUES
 - A) (ii) and (iii) are true
 - B) (i) and (ii) are true
 - C) (iii) and (iv) are true
 - D) (ii) and (iv) are true
9. A binary search tree is generated by inserting in order of following integers
50, 15, 62, 5, 20, 58, 91, 3, 8, 37, 60, 24
The number of nodes in the left subtree and right subtree of the root respectively is
 - A) (4, 7)
 - B) (7, 4)
 - C) (8, 3)
 - D) (3, 8)
10. A directed graph with n vertices and e edges are represented by Adjacency matrix. What is the time required to determine the in-degree of a vertex?
 - A) $O(e)$
 - B) $O(n)$
 - C) $O(n^2)$
 - D) $O(e+n)$

Sample Questions for M.Tech. (Microelectronics)

1. The voltage requirements for the SEM are of the order of :
 - A) 100-200V
 - B) 100-200KV
 - C) 10-30KV
 - D) 10-30V
2. Powder X ray diffractometry is used to
 - A) Determine the crystal structure
 - B) Determine the surface topography
 - C) Determine the wavelength of X rays
 - D) None of the above
3. The difference between AFM and STM is
 - A) STM is used for insulating materials and AFM for Conductive materials
 - B) STM is used for Conductive materials and AFM for insulating materials
 - C) STM is used for Surface details and AFM for Inner details.
 - D) STM is based on atomic forces and AFM on quantum tunneling
4. Lanthanum Oxide is a:
 - A) Conductor
 - B) Semiconductor
 - C) Dielectric
 - D) Superconductor
5. LED emit light because
 - A) They are made up of direct band gap semiconductors
 - B) Band to Band tunneling
 - C) Quantum mechanical tunneling action
 - D) They are made up of indirect band gap semiconductors
6. In modern communication system, the data traffic can be measured by
 - A) Baud rate
 - B) Bit Rate
 - C) Symbol rate
 - D) Erlangs
7. In a MOSFET, the drain current saturates because
 - A) The drain is cut off from the source
 - B) The drain is shorted with the source
 - C) Due to unknown physics phenomenon in the channel
 - D) Breakdown phenomenon
8. Which one of the following is used as a resist material in IC fabrication?
 - A) PBS
 - B) SEM
 - C) Silicon
 - D) Germanium
9. Latch up problem in Integrated Circuits is minimized using:
 - A) Bulk silicon technology
 - B) SOI technology
 - C) SiGe technology
 - D) SiC technology
10. Ion implantation causes damage in ICs in the form of conversion from :
 - A) Polycrystalline to crystalline
 - B) Amorphous to Crystalline
 - C) Amorphous to Polycrystalline
 - D) Crystalline to amorphous

Sample Questions for Master of Business Economics (MBE)

- Accounting is the language of –
 - Business
 - Books of Accounts
 - Accountant
 - None of these
- Which of the following is not included under accounting concepts?
 - Money Measurement Concept
 - Business Entity Concept
 - Continuity Concept
 - None of these
- Which expenses is of Capital Nature?
 - Depreciation
 - Wages
 - Salary
 - Stationary
- Dividend can be declared from –
 - Revenue Profit
 - Capital Profit
 - Secret Reserve
 - All of these
- Privatization is the result of –
 - Economic Compulsion
 - Social Compulsion
 - Global Compulsion
 - Market Compulsion
- An agreement enforceable by law is called –
 - Voidable Contract
 - Void Agreement
 - Legal Agreement
 - Valid Contract
- The Sale of Goods Act came into force from –
 - July 1, 1932
 - July 1, 1930
 - July 1, 1935
 - July 1, 1940
- The value of the variable which occurs most frequently in a distribution is called –
 - Mode
 - Mean
 - Median
 - All of these
- The arithmetic mean of a series is the figure obtained by dividing the sum of values all items by
 - 2
 - 3
 - 3
 - Their Number
- Which of the following is Business Averages?
 - Moving average
 - Progressive average
 - Composite Average
 - All of these

Master of Entrepreneurship and Family Business (MEFB)

Part A: Verbal ability/Reasoning

- Disease: Health:: Freedom : ?
 - Slavery
 - Pleasure
 - Plight
 - Beauty
- If you are going to west in the afternoon, the sun will be visible at your left.
 - Never
 - Always
 - Sometimes
 - Often
- Fill in the blank with the most suitable alternative. He shouted at the subordinate.
 - Loud
 - Loudly
 - Loudely
 - Loudingly

Part B: General Knowledge

- In which organ of the human body would you find a cluster of cells which produce insulin?
 - Bile
 - Liver
 - Pancreas
 - Brain
- Which area in India is the only breeding ground of the flamingo?
 - Rann of Kutch
 - North East
 - Himalayas
 - Bay of Bengal
- Which was the first Capital of Pakistan?
 - Karachi
 - Lahore
 - Islamabad
 - Peshawar
- Which Olympic did Milkha Singh break the world record in the 400 metres event.
 - Rome
 - Athens
 - Beijing
 - None of the above
- Kuchipudi is a dance form of
 - Tamil Nadu
 - Orissa
 - Kerala
 - None of the above

Part C: Data Interpretation

According to the survey of 2000 educated unemployed persons in which 1200 were men and 800 were women, the following data were collected.

Qualification	Unemployed Men	Unemployed Women
Doctors	12.5%	15%
Engineers	20.0%	7.5%
Trained Teachers	15.0%	22.5%
Post-Graduates	22.5%	25.0%
Graduates	30.0%	30.0%

- On the basis of above Table, what is the difference between the number of unemployed men and women doctors?
 - 20
 - 30
 - 40
 - None of the above
- What is the total number of unemployed Graduates?
 - 425
 - 475
 - 550
 - 600
- The value of the variable which occurs most frequently in a distribution is called
 - Mode
 - Mean
 - Median
 - All of these
- The arithmetic mean of a series is the figure obtained by dividing the sum of values all items by
 - 2
 - 3
 - 5
 - Their Number
- Which of the following is Business Averages?
 - Moving average
 - Progressive average
 - Composite Average
 - All of these

Part D: Commerce/ Economics

- The sale of goods Act came into force from –
 - July 1, 1932
 - July 1, 1930
 - July 1, 1935
 - July 1, 1940

Sample Questions for M.Com. (Honours)

- Which of the following presents key aspects of the process of accounting in the correct chronological order?
 - Communicating, recording and identifying
 - Recording, identifying and communicating
 - Recording, totaling and identifying
 - Identifying, recording and communicating
- Which of the following is not a function of controller?
 - Financial reporting
 - Managerial reporting
 - Money management
 - Cost management
- Ending finished goods inventory is:
 - Beginning finished goods inventory + cost of goods completed – cost of goods sold
 - Cost of goods completed – cost of goods sold
 - Beginning finished goods inventory + cost of goods completed
 - Beginning finished goods inventory - cost of goods completed + cost of goods sold
- When an oligopolist individually chooses its level of production to maximize its profits, it charges a price that is
 - more than the price charges by either monopoly or a competitive market
 - less than the price charges by either monopoly or a competitive market
 - more than the price charges by a monopoly and less than the price charges by a competitive market
 - less than the price charges by a monopoly and more than the price charges by a competitive market
- Suppose that the government increases its spending by 10 per cent and also increases taxes by 10 per cent. We would expect this policy to
 - Essentially have no effect on the level of national income
 - Have a contractionary effect on national income
 - Decrease the marginal propensity to save out of each extra pound of income
 - Have an expansionary effect on national income.
- The Government of India has decided to cover all districts of the country in National Rural Employment Guarantee Programme (NREGP)
 - up to January 1, 2008
 - up to March 31, 2008
 - with effect from April 1, 2008
 - with effect from April 1, 2009

4. Which of the following is also known as an inventoriable cost?
 - A) Period cost
 - B) Fixed cost
 - C) Product cost
 - D) Conversion cost
5. A cost management tool that brings in its focus the activities performed to produce a product is called
 - A) target costing
 - B) life cycle costing
 - C) ABC
 - D) benchmarking
6. The first Factories Act was enacted in
 - A) 1881
 - B) 1895
 - C) 1897
 - D) 1885
7. If the date of incorporation of a company is 1/01/2005, the first AGM must be held before
 - A) 30/06/2006
 - B) 31/03/2006
 - C) 31/12/2005
 - D) 31/03/2005
8. The 'right to information' under the RTI Act, 2005 includes the right to
 - A) Inspect works, documents, records
 - B) Take notes, extracts or certified copies of documents or records
 - C) Obtain information in form of printouts, diskettes, floppies, tapes video cassettes or in any other electronic mode or through printouts
 - D) All of the above
9. Long term capital asset is an asset (other than financial securities) which is held by the assessee for more than
 - A) 36 months
 - B) 12 months
 - C) 24 months
 - D) 30 months
10. The definition of 'Goods' under the Central Sales Tax Act, 1956 does not include
 - A) Newspapers
 - B) Standing corps
 - C) Computer software
 - D) Animals
11. A rational person does not act unless
 - A) the action is ethical
 - B) the action produces marginal costs that exceed marginal benefits
 - C) the action produces marginal benefits that exceed marginal costs
 - D) the action makes money for the person
15. Reserve Bank of India calculates four components of money supply, M1, M2, M3, M4. Which one of the following statement is not correct?
 - A) $M1 = \text{currency with public} + \text{demand deposits with banks}$
 - B) $M2 = M1 + \text{post office savings deposit}$
 - C) $M3 = M1 + M2$
 - D) $M4 = M3 + \text{total post office deposits}$
16. What is meant by the term functional management?
 - A) A system of business organization that is based on an individual having a wide range of skills needed to administer a business
 - B) A type of management that is based more on personality
 - C) A system that groups together various jobs and is organized by departments, sections, or functions
 - D) A system that supports a flat form of command chain
17. Maslow, in his triangle of human needs, showed that
 - A) Having challenging new tasks is a basic human need
 - B) Money always motivates workers
 - C) Safety and security is a low order human need
 - D) Workers will not give of their best unless they have good social events provided by the firm
18. The purpose of the Malcolm Baldrige National Quality Award is to
 - A) Stimulate efforts to improve quality
 - B) Recognize quality achievements of companies
 - C) Publicize successful quality programs
 - D) All of the above
19. The process of collecting information about the external marketing environment is
 - A) Environmental management
 - B) Environmental scanning
 - C) Marketing management
 - D) Marketing scanning
20. The correct components of the 7-S framework are
 - A) Share values, synergy, systems, strategy, style, staff and structure
 - B) Standards, strategy, style, staff skills, systems and security
 - C) Structure, strategy, shared values, style, staff, skills and systems
 - D) Strategy, synergy, shared value, standardization, skills staff and structure

Sample Questions for M.Com (Business Innovations)

- Q1) India first took part in the Olympic games in the year
 A) 1920
 B) 1928
 C) 1972
 D) 1974
- Q2) Where is the headquarters of the Oil and Natural Gas Corporation
 A) Mumbai
 B) Dehradun
 C) Vadodara
 D) Digboi
- Q3) The working languages of the UNESCO is/ are
 A) English only
 B) French only
 C) English and French
 D) English, French and Russian
- Q4) After textiles, India's second important industry is:
 A) Sugar
 B) Jute
 C) Cement
 D) Iron and Steel
- Q5) Vedanta group has been denied permission to start its activities in Niyamgiri Hills of Orissa. What activity was it pursuing?
 A) Steel Production
 B) Bauxite mining
 C) Gas exploration
 D) Timber cutting
- Q6) Botany: Plants::Entomology:? –
 A) Birds
 B) Plants
 C) Insects
 D) Snakes
- Q7. 48:122::168:? –
 A) 292
 B) 290
 C) 225
 D) 215
- Q8) AKU:?:CMW:DNX
 A) BGL
 B) BLQ
 C) BGQ
 D) BLV
- Q9) Flow: River::Stagnant: ?
 A. Pool
 B. Rain
 C. Stream
 D. Canal
- Q 10) A rectangular floor is fully covered with square tiles of identical size. The tiles on the edges are white and tiles in the interior are red. The number of white tiles is the same as the number of red tiles. A possible value of the number of tiles along the edge of the floor is
 A. 10
 B. 12
 C. 14
 D. 16

Sample Questions for MBACIT

- Q1) C. V. Raman won the Noble Prize for
 C) Bioscience
 D) Chemistry
 E) Economics
 F) Physics
- Q2) A.P.J. Abdul Kalam's autobiography is titled
 A) Ignited minds
 B) The Argumentative Indian
 C) The Alchemist
 D) Wings of Fire
- Q3) SEZ Stands for
 A) Special economic zone
 B) Suez Canal
 C) Select enterprise zone
 D) Specific elite zone
- Q4) A wheel makes 1000 revolutions in covering a distance of 88 Km. The diameter of the wheel is:
 A) 24 meter
 B) 40 meter
 C) 28 meter
7. The value of the variable which occurs most frequently in a distribution is called –
 A) Mode
 B) Mean
 C) Median
 D) All of these
8. The arithmetic mean of a series is the figure obtained by dividing the sum of values all items by
 B) 2
 C) 3
 D) 5
 E) Their Number
9. Which of the following is Business Averages?
 A) Moving average
 B) Progressive average
 C) Composite Average
 D) All of these

D) 14 meter

Q5) The difference between the ages of two persons is 10 years. 15 years ago, if the elder one was twice as old as the younger one, their present ages are

A) 35, 25

B) 45, 35

C) 33, 23

D) 30, 20

Q6) The sale of Goods Act came into force from –

A) July 1, 1932

B) July 1, 1930

C) July 1, 1935

D) July 1, 1940

10. Which type of software is focused on supporting communication, collaboration and coordination?

A) Groupware

B) CRM software

C) E-business software

D) SCM software

11. When discussing email security, what is a Trojan Horse?

A) A code hidden in another useful program, which has a destructive function of some sort

B) The barrier or firewall through which all incoming email must pass.

C) Small computer program snippets that are designed to do some harm on their host

D) A destructive program that can spread itself automatically from one computer to the next within an email

Sample Questions for M.P. Ed.

1. What is the normal life span of RBC's?

A) 60 days

B) 90 days

C) 120 days

D) 150 days

2. Three of the following are alike in a certain way and so they form a group. Which is the one does not belong to the group?

A) Basketball

B) Volleyball

C) Hockey

D) Table Tennis

3. 2012 AD Olympic Games will be held at:

A) Tokyo

B) Brazil

C) Sydney

D) Paris

4. Chronological age is calculated with the help of

A) Mental qualities

B) X-rays

C) Calendar years

D) Organs and secretions

5. The sacrum consists of :

A) 3 Vertebrae

B) 4 Vertebrae

C) 5 Vertebrae

D) 7 Vertebrae

6. The chief sources of vitamin A is:

A) Banana

B) Egg

C) Carrot

D) Guava

7. What is the stick used in snooker called:

A) A Cue

B) Heave

C) Paddle

D) Togo

8. "Shivanthi Gold Cup" is associated with the game of:

A) Hockey

B) Football

C) Volleyball

D) Badminton

9. "A state of complete physical mental and social wellbeing and not merely the absence of disease or infirmity". This statement which defines health is given by:

A) UNESCO B) UNICEF

C) WHO D) Red Cross

10. What is amount of money given to the winner of MAKATROPHY?

A) Rs. 5 lakhs

B) Rs. 3 lakhs

C) Rs. 10 lakhs

D) Rs. 7 lakhs

Sample Questions for B.P. Ed.

1. The first Modern Olympic games were held in the year:

A) 1892

B) 1896

C) 1900

D) 1904

2. 'Thomas Cup' is associated with:

A) Badminton (women)

B) Badminton (men)

C) Table Tennis (women)

D) Table Tennis (men)

3. Most important component of level of

6. World Cup Soccer 2014 will be held in which of the following countries?

A) Argentina

B) Brazil

C) Italy

D) Spain

7. Who is the first teacher of a child?

A) Teacher

B) His Parents

C) His environment

- living is?
- Health
 - Occupation
 - Education
 - Housing
- Vinay is taller than Manu, but not as tall as Yogesh. Karim is taller than Dillip but shorter than Manu. Who is the tallest among them?
 - Vinay
 - Yogesh
 - Karim
 - Manu
 - Find the odd personality:
 - Baichung Bhutia
 - Kapil Dev
 - Pete Sampras
 - Jarnail Singh
 - Which of the following tournaments is not a part of Grand Slam Tennis?
 - Australian Open
 - Wimbledon
 - U.S. Open
 - German Open
 - Which one of the following is different from the rest of the three?
 - Football
 - Basketball
 - Cricket
 - Tennis
 - The name of 'Tiger Woods' is associated with:
 - Boxing
 - Tennis
 - Football
 - Golf

Sample Questions for M.Sc. (Hons. School) Biochemistry

- In mammals nor-epinephrine is synthesized from:
 - Pyruvate
 - Arginine
 - Catechol
 - Tyrosine
- Hyperglycemic agent secreted by the pancreas is:
 - Insulin
 - Lipase
 - Glucagon
 - FSH
- Feeding of raw egg may result in the deficiency of:
 - Vitamin A
 - Choline
 - Biotin
 - Riboflavin
- What role RNA plays in the replication of DNA:
 - It acts as template
 - It acts as primer
 - It acts as cofactor
 - It is essential activator of DNA polymerase
- Which of the following is not involved in antigen – antibody binding:
 - Hydrogen bonds
 - Ionic Bonds
 - Hydrophobic Interactions
 - Disulphide Bonds
- The movement of ions through ion channel can be measured with the help of:
 - Extra cellular electrode
 - Intra cellular electrode
 - Patch – clamp technique
 - Liposome fusion technique
- The synthesis of most neuronal proteins occurs in the:
 - Cell body
 - Axon
 - Synapses
 - Dendrites
- Which of the following amino acid does not form peptide bond:
 - Cysteine
 - Proline
 - Lysine
 - Glycine
- Lysozyme is an enzyme which:
 - Hydrolyses bacterial cell wall
 - Is made up of RNA
 - Contains phospholipids
 - Breaks lipoproteins
- Formation of uric acid from purines is catalysed by:
 - Urease
 - Uricase
 - Xanthine oxidase
 - Adenosine deaminase

Sample Questions for M.Sc. (Hons. School) Biophysics

- If $\vec{A} + \vec{B} = 0$
 - Vector \vec{A} and \vec{B} are perpendicular to each other.
 - Vector \vec{A} and \vec{B} are necessarily parallel.
 - Vector \vec{A} and \vec{B} must be antiparallel.
 - Vector \vec{A} and \vec{B} may be parallel or antiparallel.
- The minimum charge on a body can be:
 - one coulomb
 - one stat coulomb
 - 1.6×10^{-19} coulomb
 - 3.2×10^{-19} coulomb
- The potential due to an electric dipole varies
 - inversely as the distance
 - directly as the distance
 - inversely as the square of distance
 - directly as the square of distance
- Which of these techniques does not give information about the dimensions of DNA molecule?
 - Viscosity measurement
 - light scattering
 - flow-birefringence
 - Atomic Absorption spectroscopy
- Fluorescence of a protein can be due to
 - tryptophan
 - tyrosine
 - phenylalanine
 - all the above
- The aromatic amino acids are important because:
 - they are ionized by light of wavelength 280nm.
 - they are actually imino acids that cannot rotate through the angle phi.
 - they give proteins their absorbance at 280 nm
 - they are source of disulfide bonds within the exported proteins
- The Henderson-Hasselbalch equation states that:
 - $P^k = P^H + \log R$
 - $P^H = P^k + \log R$
 - $P^H = p^k - \log R$
 - $R = p^k - p^H$
- The proteins that run the fastest in SDS-PAGE are
 - Large
 - Small
 - Negatively charged
 - Positively charged
- The auditions $a \neq b \neq c$, $\alpha = \gamma = 90^\circ$ $\beta \neq 90^\circ$ describe theUnit cell
 - tetragonal
 - orthorhombic
 - monoclinic
 - trigonal
- The electromagnetic radiation with longest wavelength. is:
 - Visible Light
 - Radiowaves
 - Microwaves
 - IR
- Of the following which has got the highest frequency?
 - ultraviolet rays
 - gamma rays
 - radio waves
 - infrared waves
- Mass spectrometry is an analytical technique for the identification of molecules by way of measuring their:
 - mass only
 - charge only
 - mass to charge ratio
 - charge to mass ratio
- Micro array analysis is used for
 - quantization of gene expression
 - to check the quality of gene expression
 - for measuring the copy number
 - to identify new genes
- Component of atom involved in study of structure with X-ray crystallography
 - Nucleus
 - Electron
 - proton
 - Neutrons
- The radius of an atom is approximately
 - 10^{-10} m
 - 10^{-12} m
 - 10^{-13} m
 - 10^{-16} m
- Rays similar to x-rays but of smaller wavelength that are given off by radioactive Substances are
 - alpha rays
 - beta rays
 - gamma rays
 - cosmic rays
- Antiparticle of electron is
 - proton
 - Antiproton
 - Positron
 - Neutron
- Atomic force microscope was invented in which year:
 - 1972
 - 1986
 - 2001
 - 1980
- Nucleic acid absorption (A_{260}) changes in different states. It is maximum when it is:
 - Double stranded
 - Single stranded
 - All nucleotides are separated
 - Fragmented
- Which out of these is not a connective tissue:
 - Cartilage
 - bone
 - muscle
 - blood
- Which of these is not a characteristic of the Cardiac muscle:
 - nonstriated
 - Presence of intercalated disc
 - Involuntary
 - Presence of action and myosin filaments.
- Fertilization occurs in which region of female reproductive part:
 - Infundibulum
 - ampulla
 - Isthmus
 - Uterus
- Brunner glands are present in:
 - Colon
 - jejunum
 - duodenum
 - ileum

Sample Questions for M.Sc. (Hons. School) in Computer Science

1. Who is original developer of Linux, the free UNIX clone on the PC?
 - A) Bill Gates
 - B) Linus Torvalds
 - C) Dennis Ritchie
 - D) Richard Stallman
2. In the context of Open Source technologies, what is the meaning of OSI and FSF acronyms/abbreviations?
 - A) Open System Interconnection and Flight Safety Foundation
 - B) Open System Interchange and Flight Safety Foundation
 - C) Open Source Initiative and Free Software Foundation
 - D) Open Source Instrument and Financial Stability Forum
3. The binary equivalent of the decimal number 0.4375 is
 - A) 0.0111
 - B) 0.1011
 - C) 0.1100
 - D) 0.1010
4. Which of the following logic families is well suited for high speed operation?
 - A) TTL
 - B) ECL
 - C) MOS
 - D) CMOS
5. Computer Network Topology is the physical layout of a LAN. The network topology with the highest reliability is
 - A) Bus topology
 - B) Star topology
 - C) Ring topology
 - D) Mesh topology
6. The extent to which the software can continue to operate correctly despite the introduction of invalid input is called
 - A) Reliability
 - B) Robustness
 - C) Fault-tolerance
 - D) Portability
7. In Java, the constants that cannot be changed are declared using the keyword
 - A) Final
 - B) Static
 - C) Abstract
 - D) Immutable
8. A machine took 200 seconds to sort 200 names, using bubble sort. In 800 seconds it can approximately sort
 - A) 400 names
 - B) 800 names
 - C) 750 names
 - D) 600 names
9. Which of the following memories must be refreshed many times per second?
 - A) Dynamic RAM
 - B) EPROM
 - C) Static RAM
 - D) ROM
10. In 1964, Douglas Engelbart demonstrated the worlds first:
 - A) Mouse
 - B) Tape Drive
 - C) Vacuum Tube
 - D) Solid Sate Memory

Sample Questions for M.Sc. (Hons. School) Mathematics

1. Let G be a group of order 147. For any $a \in G$, $a \neq e$, the number of solutions of $x^2 = a$ is
 - (A) 49
 - (B) one
 - (C) three
 - (D) zero
2. In the ring $Z[i]$, where Z is the ring of integers, the element $1 - i$
 - (A) is both irreducible as well as prime
 - (B) is neither irreducible nor prime
 - (C) is irreducible but not prime
 - (D) is prime but not irreducible
3. The equation of the tangent to the curve $f(x, y) = 0$ at any point (a, b) is given by
 - (A) $(x - a) \frac{\partial f}{\partial y}(a, b) + (y - b) \frac{\partial f}{\partial x}(a, b) = 0$
 - (B) $(x - a) \frac{\partial f}{\partial y}(a, b) - (y - b) \frac{\partial f}{\partial x}(a, b) = 0$
 - (C) $(y - b) \frac{\partial f}{\partial y}(a, b) + (x - a) \frac{\partial f}{\partial x}(a, b) = 0$
 - (D) $(x - a) \frac{\partial f}{\partial x}(a, b) - (y - b) \frac{\partial f}{\partial y}(a, b) = 0$
4. Two spheres

$$x^2 + y^2 + z^2 + 2u_1x + 2v_1y + 2w_1z + d_1 = 0$$

$$x^2 + y^2 + z^2 + 2u_2x + 2v_2y + 2w_2z + d_2 = 0$$
 cut each other orthogonally if
 - (A) $2u_1u_2 + 2v_1v_2 + 2w_1w_2 = d_1 + d_2$
 - (B) $u_1u_2 + v_1v_2 + w_1w_2 = 0$
 - (C) $\frac{u_1}{u_2} = \frac{v_1}{v_2} = \frac{w_1}{w_2} = \frac{d_1}{d_2}$
 - (D) $2(u_1 - u_2) + 2(v_1 - v_2) + 2(w_1 - w_2) = (d_1 - d_2)$
5. The series $\sum \frac{1}{n(\log n)^p}$ is
 - (A) convergent if $p > 0$
 - (B) convergent if $p > 1$
 - (C) divergent if $p > 1$
 - (D) convergent if $0 < p < 1$
6. The integrating factor of the differential $\frac{\partial y}{\partial x} + 2xy = 4x^3$ is given by
 - (A) e^y
 - (B) e^{x^2}
 - (C) e^x
 - (D) e^y
7. If $\phi(x_1, y_1, z_1) = 3x^2y - y^3z^2$, then $\nabla \phi$ at the point $(1, -2, 1)$ is
 - (A) $-12\hat{i} - 9\hat{j} - 16\hat{k}$
 - (B) $12\hat{i} + 9\hat{j} - 16\hat{k}$
 - (C) $-12\hat{i} + 9\hat{j} + 16\hat{k}$
 - (D) $-12\hat{i} + 9\hat{j} - 16\hat{k}$
8. If one root of the equation $x^3 - 13x^2 + 15x + 189 = 0$ exceeds the other by 2, then all the roots are
 - (A) 7, 9 and 3
 - (B) -7, -9 and -3
 - (C) 7, 9 and -3
 - (D) -7, -9 and 3
9. Two forces 13 kg.wt. and $3\sqrt{3}$ kg.wt. act on a particle at an angle θ and equal to a resultant force of 14 kg.wt., then the angle between the forces is
 - (A) 45°
 - (B) 30°
 - (C) 60°
 - (D) 90°
- Let W_1 and W_2 be subspaces of dimensions 5 and 4 respectively of a vector space V of dimension 6. Then $\dim(W_1 \cap W_2)$ is
 - (A) Zero
 - (B) one
 - (C) at most two
 - (D) at least three
10. dimensions 5 and 4 respectively of a vector space V of dimension 6. Then $\dim(W_1 \cap W_2)$ is
 - (A) Zero
 - (B) one
 - (C) at most two
 - (D) at least three

Sample Questions for M.Sc. (Hons. School) Microbiology

1. Which of the nif gene code(s) for denitrogenase
 - A) nifL
 - B) Nifa
 - C) nifH
 - D) nif K and D
2. 'Late blight of potato' is caused by which of the following organisms:
 - A) *Candida albicans*
 - B) *Alteranaria solani*
 - C) *Puccinia graminis*
 - D) *Phytophthora infestans*
3. Which of the following organism produces Aflatoxin B:
 - A) *Curvularia lunata*
 - B) *Aspergillus parasiticus*
 - C) *Agaricus bisporus*
 - D) *Fusarium solani*
4. pBR322 is a:
 - A) Virus
 - B) Computer programme
 - C) Cyanobacterium
 - D) Cloning Vector
5. PCR (Polymerase chain reaction) is used for :
 - A) Amplification of DNA
 - B) Ligation of DNA
 - C) Digestion of DNA
 - D) Removal of protein from impure DNA sample
6. M13 is used for
 - A) Cloning and sequencing of gene
 - B) Isolation of a plasmid
 - C) Used as a shuttle vector
 - D) Amplification of DNA
7. How many constant domains does the heavy chain of IgE have?
 - A) Two
 - B) Three
 - C) Four
 - D) Five
8. Tumor cells may be killed by:
 - A) Antibodies & Complement
 - B) Activated T Cells
 - C) Natural killer cells
 - D) All the above
9. Those cells which must cooperate with B cells to produce antibody response to certain antigens are known as :
 - A) Stem cells
 - B) helper T cells
 - C) Suppressor T cells
 - D) Macrophages
10. *Salmonella typhi* produces:
 - A) Typhus
 - B) Dysentery
 - C) Acute diarrhea
 - D) Septicemia

Sample Questions for M.Sc. 2-Year Course Bioinformatics/ System Biology and Bioinformatics

1. Which are the repositories for raw sequence data
 - A) Gen Bank
 - B) EMBL
 - C) DDBJ
 - D) GGPP
2. Which of the following annotation is not provided by SWISS-PROT
 - A) Protein function
 - B) Domain structure
 - C) Post translation modification
 - D) Crystal formations
3. Which is the most important computer language used in Bioinformatics
 - A) Pascal
 - B) Perl
 - C) Java
 - D) C++
4. Which type of analysis cannot be performed on *raw DNA sequence* using Bioinformatics tools
 - A) Identifying coding regions
 - B) Identification of introns and exons
 - C) Gene product prediction
 - D) Identifying *cis* and *trans* regions
5. OMIM is engaged in study of
 - A) Human molecular Biology
 - B) Plant molecular biology
 - C) Bacterial molecular biology
 - D) Yeast Molecular biology
6. Which of the following sequence is correct:
 - A) DNA, RNA, Protein
 - B) DNA, Protein, RNA
 - C) RNA, DNA, Protein
 - D) Protein, DNA, RNA
7. Which is not the method of protein/DNA sequence alignment
 - A) Matrix
 - B) Brute force
 - C) Dynamic programming
 - D) Heuristic methods
8. The method not used in NSA programming is
 - A) Sum of pairs methods
 - B) Spare alignment
 - C) Two step method
 - D) Fitch/Margoliosh method
9. Distance matrix method are used for
 - A) Carbohydrate structure prediction
 - B) Proteins structure prediction
 - C) Phylogenetic analysis
 - D) Primer design
10. FASTA-BLAST, WU-BLAST are programmes used for determining
 - A) Sequence similarity of Protein only
 - B) Sequence similarity of DNA only
 - C) Sequence similarity of Carbohydrate only
 - D) Sequence similarity of Protein and DNA

Sample Questions for M.Sc. (Environment)

- A thin copper wire of length one metre increases in length by 4% when heated by 10°C . What will be the per cent increase in area when a square copper sheet of side one metre is heated by 10°C ?
A) 4%
B) 8%
C) 16%
D) 24%
- If the unit of length and force are increased by 4 times, the unit of energy gets increased by how many times?
A) 4 times
B) 8 times
C) 16 times
D) does not change
- The scientific principle involved in radio and television is:
A) Superconductivity
B) Semiconductography
C) Propagation of e.m. waves
D) Electromagnetic induction
- A passenger in a moving train tosses a coin. If it falls behind him, the train must be moving with
A) An acceleration
B) A deceleration
C) Uniform speed
D) It can never happen
- Zero error of an instrument introduces:
A) Systematic error
B) Random error
C) Per cent error
D) Means no error
- The Science of surveying and mapping the earth's surface is known as:
A) Cartography
B) Geodesy
C) Topography
D) Scienodsy
- The gravitational force with which a body is attracted towards the earth is
A) Maximum at the equator and minimum at the poles
B) Minimum at the equator and maximum at the poles
C) The same at the equator and the poles
D) Depends on the altitude at the given point
- Which of the following is used as an antiseptic?
A) Iodine
B) Bromine
C) Chlorine
D) Fluorine
- Washing soaps produces a scum with hard water and not much of foam, because the hard water contains:
A) Many suspended particles
B) Many dissolved inorganic salts
C) Chalk and sulphur
D) Dissolved organic matter
- Which of the following is a deadly nerve gas developed during the second world war?
A) Nitric oxide
B) Phosgene
C) Sarine
D) Dioxin
- The natural rubber obtained from trees is made of:
A) Isoprene units
B) Vinyl chloride
C) Acetylene
D) Neoprene
- Which of the following is differentially permeable?
A) Cell wall
B) Tonoplast
C) Nuclear membrane
D) Cytoplasm
- Which of the following prevents leaf shedding in plant?
A) Auxins
B) Gibberellins
C) Cytokinins
D) Absciscic acid
- Sugar in chloroplast is synthesized in:
A) Quantasomes
B) Stroma
C) Thylakoids
D) Matrix
- The structure of protoplasm is:
A) Granular
B) Fibrillar
C) Reticular
D) Colloidal Matrix
- Which of the following could be 'cancer' of the lymph nodes and spleen?
A) Carcinoma
B) Sarcoma
C) Leukemia
D) Lymphoma
- The major component of Bacterial cell wall is
A) Xylan
B) Chitin
C) Peptidoglycan
D) Cellulose
- How many bones does the Cranium of man have?
A) 8
B) 12
C) 16
D) 20
- When is the world Population day celebrated?
A) August 3
B) April 16
C) October 18
D) July 11

20. In a Nuclear Reactor the heavy water is used to :
- A) cool the neutrons
 - B) slow down the neutrons
 - C) absorb the neutrons
 - D) control the number of neutrons

Sample Questions for M.Sc. (Human Genomics)

1. Which one of the following is an essential component of DNA?
 - A) Protein
 - B) Carbohydrate
 - C) Lipids
 - D) Vitamins
2. Three types of RNA involved in comprising the structural and functional core for protein synthesis, serving as a template for translation, and transporting amino acid, respectively, are:
 - A) mRNA, tRNA, rRNA
 - B) rRNA, tRNA, mRNA
 - C) tRNA, mRNA, rRNA
 - D) rRNA, mRNA, tRNA
3. A synthetic mRNA of repeating sequence 5'-CACACACACACACAC... is used for a cell-free protein synthesizing system like the one used by Nuremberg. If we assume that protein synthesis can begin without the need for an initiator codon, what product or products would you expect to occur after protein synthesis.
 - A) One protein consisting of a single amino acid
 - B) Three proteins, each consisting of a different, single amino acid
 - C) One protein, with an alternating sequence of two different amino acids
 - D) Two proteins, each with an alternating sequence of two different amino acids.
4. A replicon is:
 - A) an enzyme complex that replicates DNA
 - B) the amount of time required to duplicate a genome
 - C) larger in complex eukaryotes and smaller in bacteria
 - D) the DNA sequences that specify and are replicated by a single replication initiation event
5. Signaling between cells usually results in the activation of protein
 - A) lipase
 - B) kinases
 - C) proteases
 - D) nuclease
6. Highly repetitive DNA has
 - A) a very short repeating sequence and no coding function
 - B) a moderate repeating sequence and a coding for house keeping gene
 - C) a simple repeat sequence and no coding function
 - D) None of the above
7. From which grandparent or grandparents did you inherit your mitochondria? Is it your:
 - A) mother's parents
 - B) paternal grandfather
 - C) grand mothers
 - D) maternal grandmother
8. What are the possible blood types of the offspring of a cross between individuals that are type AB and type O? (Hint: blood type O is recessive)
 - A) AB or O
 - B) A, B, or O
 - C) A or B
 - D) A, B, AB, or O
9. A woman with an X-linked dominant disorder mates with a phenotypically normal male. On average, what proportion of this couple's daughters will be affected with the disorder?
 - A) 0.5
 - B) 1.0
 - C) 0.75
 - D) 0.25
10. A messenger acid is 336 nucleotides long, including the initiator and termination codons. The number of amino acids in the protein translated from this mRNA is:
 - A) 999
 - B) 630
 - C) 330
 - D) 111

Sample Questions for M.Sc. in Nuclear Medicine

- We can't produce colors with white light through:
 - Interference
 - Polarization
 - Diffraction
 - Dispersion
- Methods of Fourier Transformation are applied in
 - Nuclear Magnetic Resonance
 - X-ray crystallography
 - Medical Imaging
 - All of the above
- Which one of the following is correctly matched?
 - Chloroplast – storage of enzymes
 - Lysosome – powerhouse of cell
 - Nucleolus – site of ribosomal synthesis
 - Glyoxysome – structural support of cell

Which amino acid can stabilize protein structure by forming covalent cross links between polypeptide chains?

 - Ser
 - Gly
 - Glu
 - Cys

In CT imaging the phenomenon used is

 - Radiation absorption
 - Radiation damage
 - Free radical formation
 - Radiation fluorescence
- Macrophage – like cells in the connective tissue are
 - Osteoclasts
 - Mesangial cells
 - Histiocytes
 - Microglial cells
- Zinc finger proteins and helix-turn-helix proteins are:
 - Types of DNA-binding proteins
 - Involved in the control of translation
 - Components of ribosomes
 - Part of the hemoglobin in blood cells
- Transcription of DNA into mRNA is catalyzed by
 - DNA polymerase
 - RNA synthetase
 - RNA polymerase
 - Rnase
- Which nitrogenous bases is NOT found in DNA?
 - Thymine
 - Uracil
 - Adenine
 - guanine
- How would the complementary strand of DNA appear if the original strand of DNA contained the bases T-A-G-C in the order?
 - U-A-C-G
 - G-C-A-T
 - T-A-C-G
 - A-T-C-G

Sample Questions for M.Sc. (2-Year Course) Microbial Biotechnology

- Escherichia coli* is a
- Chemo-heterotroph
 - Photo-autotroph
 - Chemo-autotroph
 - Photo-heterotroph
- The smallest bacterial genome sequenced is of
- Proteus*
 - Haemophilus*
 - Mycoplasma*
 - Bacillus*
- STR stands for
- Small Tank Reactor
 - Shallow Tank Reactor
 - Steel Tank Reactor
 - Stirred Tank Reactor
- By profession Antony van Leeuwenhoek was a
- Microbiologist
 - Bacteriologist
 - Spice merchant
 - Cloth merchant
- Which of the coenzyme is involved in the oxidative phosphorylation
- Coenzyme Q
 - NADH
 - NAD
 - Cytochrome
- Polar mutations are caused by
- Acridine orange
 - UV rays
 - IS4
 - 5-Brom . 2ouracil
- Which of the following technique is best for mapping of the genes
- Transformation
 - Transduction
 - Conjugation
 - Transposition
- DPT stands for
- Diphtheria, Polio, Tetanus
 - Diarrhea, Polio, Tetanus
 - Diphtheria, Pertusis, Tetanus
 - Diarrhea, Pertusis, Tetanus
- For control of cholera infections which of the immunity is most important
- IgG
 - IgA
 - IgM
 - IgE
- Citric acid fermentation is carried out using
- Citrobacter*
 - Acetobacter*
 - Aspergillus*
 - Escherichia*

Sample Questions for M.Sc. in Biotechnology

Correct sequence of stages in cell cycle is

- A) G1, S, G2, M
- B) S, G2, M, G1
- C) G1, G2, M, S
- D) G1, G2, S, M

Which of the following does not contain both DNA and RNA?

- A) Yeast
- B) Bacteria
- C) Mycoplasma
- D) Virus

Which of the following is not an antibacterial antibiotic

- A) Tetracyclin
- B) Ampicillin
- C) Nystatin
- D) Nalidixic acid

The development of egg without fertilization is called

- A) Blastogenesis
- B) Parthenogenesis
- C) Cogenesis
- D) Gametogenesis

TATA box and Pribnow box are components of

- A) Operators
- B) Promoters
- C) Enhancers
- D) Activators

Peptide chain elongation involves all the following except

- A) peptidyl transferase
- B) GTP
- C) Tu, Ts and G factors
- D) Formyl tRNA

7. The smallest unit of DNA capable of coding for the synthesis of a polypeptide is the

- A) Operon
- B) cistron
- C) promoter
- D) replicon

8. Exonuclease is an enzyme, which cleaves DNA from

- A) 3' end
- B) 5' end
- C) both 3' and 5' end
- D) internal bonds in DNA

9. Which of the following is not part of the *lac* operon of *E. coli*?

- A) genes for inducible enzymes of lactose metabolism
- B) genes for the repressor, a regulatory protein
- C) gene for RNA polymerase
- D) a promoter, the RNA polymerase binding site

10. Which of the following primers would allow copying of the single-stranded DNA sequence 5' ATGCCTAGGTC?

- A) 5' ATGCC,
- B) 5' TACGG
- C) 5' CTGGA
- D) 5' GACCT

Sample Questions for M.Sc. (Hons. School) Botany

1. In C_4 plants the first CO_2 acceptor is :

- A) Ribulose – 1,5-bisphosphate
- B) Phosphoenol pyruvate
- C) Pyruvate
- D) Ribulose-5-phosphate

2. In majority of angiosperms, the female gametophyte at the time of fertilization is :

- A) 8-celled
- B) 7-celled
- C) 6-celled
- D) 4-celled

3. Agar-agar is extracted from which of the following genera

- A) *Gracilaria*
- B) *Dictyota*
- C) *Ectocarpus*
- D) *Laminaria*

4. Black rust of wheat is caused by :

- A) *Ustilago tritici*
- B) *Puccinia graminis tritici*
- C) *Protomyces macrosporus*
- D) *Albugo candida*

7. Most bryophytes are autotrophic but a few are more or less saprophytic. Which of the following is totally devoid of chlorophyll and depends upon a mycorrhizal association for its growth and development?

- A) *Cyptothallus mirabilis*
- B) *Funaria hygromitrica*
- C) *Concepalum conium*
- D) *Pellia epiphylla*

8. Somaclonal variations are:

- A) Variations produced during tissue culture
- B) Variations produced during sexual reproduction
- C) Variations caused by mutagenic chemicals
- D) Variations caused by Gamma rays

9. Trisomic condition is expressed as

- A) $2n-1$
- B) $2n-2$
- C) $2n+1$
- D) $2n+2$

5. Oomycota is a phylum in kingdom:
 - A) Fungi
 - B) Chromista
 - C) Protozoa
 - D) Mycota
6. Cystidium is a
 - A) Sterile element occurring in the hymenium of certain Basidiomycetes
 - B) Reproductive organ of a green alga
 - C) Fertile part of lichen thallus
 - D) Asexual spore
10. The functional unit in ecology is the:
 - A) Organism
 - B) Biosphere
 - C) Ecosystem
 - D) Population

Sample Questions for M.Sc. (Hons. School) 2-Year Course Chemistry

1. Anti-Markonikoff cis-hydration of an alkene can be achieved by using
 - A) Catalytic hydrogenation
 - B) Li / liq. NH_3 reduction
 - C) Alkaline KMnO_4 solution
 - D) Hydroboration-oxidation
2. Beckmann rearrangement converts an oxime into
 - A) an amine
 - B) carbamate
 - C) a substituted hydrazine
 - D) an amide
3. The configuration of the following stereoisomer

$$\begin{array}{c} \text{CH}_3 \\ | \\ \text{H} - \text{C} - \text{Cl} \\ | \\ \text{Cl} - \text{C} - \text{H} \\ | \\ \text{CH}_2\text{CH}_3 \end{array}$$

 - A) 2R, 3R
 - B) 2S, 3R
 - C) 2R, 3S
 - D) 2S, 3S

Which of the following is expected to have least paramagnetic character?

 4. A) $[\text{Co}(\text{NH}_3)_6]^{3+}$
 - B) $[\text{Fe}(\text{H}_2\text{O})_6]^{3+}$
 - C) $[\text{Cr}(\text{CN})_6]^{3-}$
 - D) $[\text{CoF}_6]^{3-}$

The freezing point of 0.1M solution of glucose is -1.86°C . If an equal volume of 0.3 M glucose is added, the freezing point of the mixture will be

 5. A) -7.44°C
 - B) -5.58°C
 - C) -3.27°C
 - D) -2.79°C
6. 1g ice absorbs 335 J of heat to melt at 0°C . The entropy change will be
 - A) $1.2 \text{ JK}^{-1}\text{mol}^{-1}$
 - B) $335 \text{ JK}^{-1}\text{mol}^{-1}$
 - C) $22.1 \text{ JK}^{-1}\text{mol}^{-1}$
 - D) $0.8 \text{ JK}^{-1}\text{mol}^{-1}$
7. Two moles of HI were heated in a sealed tube at 440°C till the equilibrium was reached. HI was found to be 22 % dissociated. The equilibrium constant for dissociation is
 - B) 0.282
 - B) 0.0796
 - C) 0.0199
 - D) 1.99
8. During biological nitrogen fixation, nitrifying bacteria convert
 - A) NO_3 to NH_4
 - B) N_2 to NH_4
 - C) NH_4 to NO_3
 - D) NO_3 to N_2
9. Which of the following state is stable for p^2 configuration?
 - A) $^1\text{D}_2$
 - B) $^3\text{P}_2$
 - C) $^1\text{S}_0$
 - D) $^3\text{P}_0$
10. Which of the following has lowest CO stretching frequency?
 - A) $\text{Ni}(\text{CO})_4$
 - B) $\text{Cr}(\text{CO})_6$
 - C) $[\text{Fe}(\text{CO})_4]^{2-}$
 - D) $[\text{Mn}(\text{CO})_6]^+$

Sample Questions for M.Sc. (Hons. School) Physics/Medical Physics/Physics & Electronics

1. Two electrons move in opposite directions at $0.70c$ as measured in the laboratory. The speed of one electron as measured from the other is:-
 - A) $0.35c$
 - B) $0.70c$
 - C) $0.94c$
 - D) $1.00c$
6. When the gate voltage becomes more negative in n-channel JFET, the channel between depletion layers:
 - A) Shrinks
 - B) Expands
 - C) Conducts
 - D) Stops conducting

2. Which one of the following transformations is second order phase transition?
 - A) Ferromagnetic state to the paramagnetic state
 - B) Melting of ice
 - C) Evaporation of materials
 - D) Solidification of materials.
3. For which one of the following signal we require an amplifier with minimum bandwidth:
 - A) Sine wave
 - B) Square wave
 - C) Triangular wave
 - D) Saw tooth wave
4. Two of maxwell's equations contain an integral over a closed surface. For them the infinitesimal vector area dA is always:
 - A) Tangent to the surface
 - B) Tangent to the field line
 - C) Perpendicular to the surface and pointing inward.
 - D) Perpendicular to the surface and pointing outward.
5. For the domestic ac supply of 220V, the breakdown voltage of a diode should be:
 - A) 130V
 - B) 163V
 - C) 220V
 - D) 330V
7. Space quantization means that:
 - A) Space is quantized
 - B) L and U are in the same direction.
 - C) L_z can have discrete values.
 - D) An electron has magnetic dipole moment.
8. The electron density of states for a metal depends primarily on:
 - A) The temperature
 - B) The energy associated with the state
 - C) The size of the sample.
 - D) The mass of the sample.
9. Some alpha emitters have longer half-lives than others because:
 - A) Their alpha particles have greater mass.
 - B) Their alpha particles have less mass
 - C) Their potential barriers to decay are higher and wider
 - D) Their decays include the emission of photons.
10. In an alpha decay the disintegration energy appears mainly as
 - A) Photon energies
 - B) The kinetic energies of the alpha and the daughter nucleus
 - C) The excitation energy of the daughter nucleus
 - D) heat

Sample Questions for M.Sc. (Hons. School/ 2-Year Course) Zoology

- The organelle which is common in the Prokaryotes and Eukaryotes is
 - Nuclear wall
 - Golgi body
 - Ribosome
 - Mitochondria
- In the Human genome project which country was not involved
 - France
 - India
 - USA
 - UK
- The best animal for the study of Developmental Biology experiments is
 - Fish
 - Pigeon
 - Turtle
 - Caenorhabditis*
- Only one of the following is to be considered as an Anamniote
 - Amphibia
 - Reptiles
 - Aves
 - Mammals
- In the neck of any mammal the number of vertebrae found are always
 - 5
 - 6
 - 7
 - 4
- Detection of antibody in ELISA involves
 - Antigen + 1st antibody + substrate
 - Antigen + 1st antibody tagged with HRP
 - Antigen + 1st antibody + 2nd antibody tagged with HRP
 - Antigen + 1st antibody + 2nd antibody tagged with HRP + substrate
- Raptorial feet are present in
 - Fowls, Pheasants, Quails
 - Sparrows, Robins, Crows
 - Hérons, Snipes, Jacanas
 - Vultures, Eagles, Owls
- _____ fin is the most primitive of caudal fins
 - Iso cercal
 - Homo cercal
 - Proto cercal
 - Gephyro cercal
- The classification of Reptiles is based on
 - Limbs
 - Teeth
 - Feeding habits
 - Temporal vacuities
- Limbs and girdles are missing in
 - Anurans
 - Caecilians
 - Apoda
 - Chelonian
- Paramecium caudatum* has
 - Single Nucleus
 - Two similar nuclei
 - Two dissimilar nuclei
 - Many nuclei

Sample Questions for M.Sc. (Hons. School) Geology

- A Sandstone containing of at least 25% Feldspar is :
 - Orthoquartzite
 - Arkose
 - Graywacke
 - Sublithic Wacke
- An intergrowth texture in which plagioclase contains inclusion of potash feldspar is known as :
 - Perthite
 - Antiperthite
 - Graphic
 - Seriate
- Which of the following rock is not of metamorphic origin:
 - Slate
 - Phyllite
 - Schist
 - Shale
- Mica Plate gives the retardation of:
 - 1 Lameda
 - ½ Lameda
 - ¼ Lameda
 - Variable retardation
- Which of the following mineral is Aluminosilicate:
 - Quartz
 - Garnet
 - Biotite
 - Sillimanite, Robins, Crows

Important Dates and Information for Entrance Test PU-CET (P.G.) - 2013

Date of Advertisement regarding test & other information relevant thereto	05-04-2013 (Friday)
Date of Availability of PU-CET (P.G.) Prospectus and Application Form on the website of Panjab University	05-04-2013 (Friday)
Last date for submission of information on the website to generate the Bank Challan	15-05-2013 (Wednesday)
Last date for deposit of fee in any branch of State Bank of India using website generated challan	17-05-2013 (Friday) upto 4:00 p.m.
Last date for submission of fee details (journal no.; branch code and date of deposit given by Bank) and uploading of photograph, signature with rest of the information on the website	20-05-2013 (Monday)
No correction will be entertained / made regarding photograph, signature and any other information after 23-05-2013, 5:00 p.m.	23-05-2013 (Thursday) upto 5:00 p.m.
<u>Final date by which Roll No. will be available online</u> Admit Card required to be downloaded from the website by the candidate using their own Login and Password (provided while generating Bank Challan). <u>There will be no physical communication for this purpose.</u>	31-05-2013 (Friday)
Dates of holding Entrance Test	15-06-2013 to 18-06-2013 (Saturday to Tuesday)
Tentative date during which the result may be declared by the University	27-06-2013 to 30-06-2013 (Thursday to Wednesday)
PU-CET (P.G.) Course Fee General Category SC/ST Category Additional Form (for both General and SC/ST Category)	Rs. 1600/- Rs. 800/- Rs. 700/-
50% concession for Panjab University regular employees under B & C Class (Senate dated 14.7.2007 vide para No. xxxiii)	

DATE SHEET PU-CET (P.G.) 2013

Date and Day of Test	Course	Time of Examination
15-06-2013 (Saturday)	LL.M.	8.30 a.m. to 10.00 a.m.
	M.Sc. (Zoology) (Hons. School / 2 Yr. Course)	11.00 a.m. to 12.30 p.m.
	M.B.E.	11.00 a.m. to 12.30 p.m.
	M.Sc. (Physics / Physics & Electronics) (Hons. School/ 2 Yr. Course)/Medical Physics	1.30 p.m. to 3.00 p.m.
	M.Tech. (Polymer)	1.30 p.m. to 3.00 p.m.
	M.Com. (Business Innovation)	1.30 p.m. to 3.00 p.m.
	M.E.F.B.	3.30 p.m. to 5.00 p.m.
16-06-2013 (Sunday)	M.C.A.	8.30 a.m. to 10.00 a.m.
	M.Sc. (Nuclear Medicine) (2 Yr. Course)	8.30 a.m. to 10.00 a.m.
	M.Tech. (Microelectronics)	11.00 a.m. to 12.30 p.m.
	M.Sc. (Chemistry) (Hons. School/ 2 Yr. Course)	11.00 a.m. to 12.30 p.m.
	M.Sc. (Botany) (Hons. School/ 2 Yr. Course)	1.30 p.m. to 3.00 p.m.
	M.E. (Electronics & Communication Engg.)	1.30 p.m. to 3.00 p.m.
	M.Sc. (Biotechnology) (Hons. School/ 2 Yr. Course)	4.00 p.m. to 5.30 p.m.
	M.Sc. (Computer Science) (Hons. School)	4.00 p.m. to 5.30 p.m.

17-06-2013 (Monday)	M.A. (English)	8.30 a.m. to 10.00 a.m.
	M.Tech. (Instrumentation)	8.30 a.m. to 10.00 a.m.
	M.P.Ed.	8.30 a.m. to 10.00 a.m.
	M.Sc. (Biochemistry) (Hons. School)	11.00 a.m. to 12.30 p.m.
	M.Sc. (Mathematics) (Hons. School)	11.00 a.m. to 12.30 p.m.
	M.A. (Journalism and Mass Communication)	11.00 a.m. to 12.30 p.m.
	M.E. (Instrumentation & Control)	11.00 a.m. to 12.30 p.m.
	M.Sc. (Environment Science) (2 Yr. Course)	1.30 p.m. to 3.00 p.m.
	MBACIT	1.30 p.m. to 3.00 p.m.
	M.Sc. (2 Yr. Course) Microbial Biotechnology	4.00 p.m. to 5.30 p.m.
	M.Sc. (Industrial Chemistry)	4.00 p.m. to 5.30 p.m.
	B.P.Ed.	4.00 p.m. to 5.30 p.m.
	M.Com (Hons.)	4.00 p.m. to 5.30 p.m.
	Master in Public Health	4.00 p.m. to 5.30 p.m.
18-06-2013 (Tuesday)	M.Sc. (Biophysics) (Hons. School)	8.30 a.m. to 10.00 a.m.
	M.Tech. (Nanoscience & Nanotechnology)	8.30 a.m. to 10.00 a.m.
	M.Sc. (Human Genomics) (2 Yr. Course)	8.30 a.m. to 10.00 a.m.
	M.E. (Computer Science & Engineering) / M.E. (Information Technology)	11.00 a.m. to 12.30 p.m.
	M.Sc. (Hons. School) (Geology)	11.00 a.m. to 12.30 p.m.
	M.Sc. (Microbiology) (Hons. School)	11.00 a.m. to 12.30 p.m.
	M.Sc. (System Biology and Bioinformatics)/ M.Sc. (Bioinformatics) (2 Yr. Course)	1.30 p.m. to 3.00 p.m.
	M.E. (Chemical)	1.30 p.m. to 3.00 p.m.

- NOTE:**
1. Candidates desirous to appear in more than one of the above papers, must ensure that there is no clash of timings in those papers.
 2. The above dates of tests are tentative. Final dates of tests with time and venue of test will be indicated on the Admit Card.

THE PROCEDURE AND STEPS FOR FILLING ONLINE APPLICATION FORM

STEPS TO FOLLOW :

- Register Online.
- Note down your Login Id and Password.
- Download SBI Slip and pay fee in any SBI branch.
- Login and upload scanned photograph, signature, fill other important information Save and Confirm.
- Download your Admit Card after 31th May 2013.

GENERATE BANKSLIP, LOGIN ID & PASSWORD

Read Instructions, Eligibility Criteria and date sheet carefully before registration.

Do not prefix the title such as Shri / Smt. / Mr. / Mrs. / Dr. etc. along with names.

Name[#]

Father's Name[#]

Mother's Name[#]

Date of Birth



[dd/mm/yyyy]

E-mail

Roll No of final year of Graduation:

Name of the University of passing/appearing Graduation:

Year of Appearing/Passing Graduation:

Consent for SMS

☐

Yes

☐

No

By indicating 'Yes', you would like to receive text message notifications from <http://cetpg.puchd.ac.in> on your mobile number provided below.

Category

Categories other than General

<input type="checkbox"/>	Scheduled Caste	<input type="checkbox"/>	Scheduled Tribe	<input type="checkbox"/>	Blind	<input type="checkbox"/>	PIO
<input type="checkbox"/>	Foreign National	<input type="checkbox"/>	NRI	<input type="checkbox"/>	Backward Class		
(Only for the purpose of entrance test)							

Courses

Course in which Appearing

(Check atleast one box. if you wish to appear in more than one course, check the corresponding boxes)

<input type="checkbox"/>	LL.M.	<input type="checkbox"/>	M.C.A.	<input type="checkbox"/>	M.A.(Journalism & Mass Commn.)
<input type="checkbox"/>	Master in Public Health	<input type="checkbox"/>	M.A.(English)	<input type="checkbox"/>	M.Tech (Instrumentation)
<input type="checkbox"/>	M.Tech (Nano Science & Nano Tech.)	<input type="checkbox"/>	M.E.(Chemical)	<input type="checkbox"/>	M.Tech.(Polymer)
<input type="checkbox"/>	M.Sc.(Industrial Chemistry)	<input type="checkbox"/>	M.E.(Instrumentation & Control)	<input type="checkbox"/>	M.E.(Electronics & Commn. Engg.)
<input type="checkbox"/>	M.E.(Information Technology / Computer Sci. & Engg.)	<input type="checkbox"/>	M.Tech(Microelectronics)	<input type="checkbox"/>	M.B.E.
<input type="checkbox"/>	M.E.F.B.	<input type="checkbox"/>	M.Com.(Hons.)	<input type="checkbox"/>	M.Com. (Business Innovation)
<input type="checkbox"/>	M.B.A.C.I.T.	<input type="checkbox"/>	M.P.Ed.	<input type="checkbox"/>	B.P.Ed.

M.Sc. Course(s)

<input type="checkbox"/>	Biochemistry	<input type="checkbox"/>	Biophysics	<input type="checkbox"/>	Computer Science
<input type="checkbox"/>	Mathematics	<input type="checkbox"/>	Microbiology	<input type="checkbox"/>	Geology
<input type="checkbox"/>	Bio-informatics / System Biology & Bio-informatics	<input type="checkbox"/>	Human Genomics	<input type="checkbox"/>	Nuclear Medicine
<input type="checkbox"/>	Microbial Biotechnology	<input type="checkbox"/>	Environment Science		
<input type="checkbox"/>	Botany	<input type="checkbox"/>	Chemistry	<input type="checkbox"/> Physics / Physics & Electronics / Medical Physics	
<input type="checkbox"/>	Zoology	<input type="checkbox"/>	Biotechnology		

(Only for Panjab University Employee)

Are you or either of your Parents Class B or C Regular Employee of P.U.? ☐ Yes ☐ No

Note: Candidates desirous to appear in more than one of the above papers, must ensure that there is no clash of timings in those papers.

SUBMIT