ADMISSIONS IN THE FIRST YEAR (SECOND SEMESTER) OF UG PROGRAM (DECEMBER 2011) :

Clause 1.7 of the Prospectus 2011-12 provides as under:

ADMISSIONS IN THE SECOND SEMESTER OF SESSION 2011-12:

The University, if deems fit, may admit students to the second semester of UG programme in January 2012 by conducting its own entrance test in the month of December 2011. This admission will be made for the vacancies that may exist in the first semester of first year. The students admitted in this category shall have to clear all the courses as per the scheme of the discipline of Thapar University, in which she/he is admitted. The eligibility & schedule of the test will be as under:

Eligibility:

1   She/he should have been a student of BE/BTech programme of a recognised Institute/University and have passed 10+2 or equivalent examination from recognized board and have secured at least 60% (55% for SC/ST candidates) marks in aggregate of Mathematics, Physics and Chemistry/Computer science/Biology/Biotechnology.

2   She/he should have appeared in the Entrance Test to be conducted by Thapar University. The cut-off marks in the Entrance test shall be 20% (15% for SC/ST).

3   She/he should be a citizen of India.

4   She/he should bear a good character and satisfy the prescribed requirements of the University.

Schedule of the admissions

Last date of receipt of application forms	November 22, 2011
Date of ONLINE Entrance Test	December 21-26, 2011
Declaration of the result	January 03, 2012
Counseling for admission & deposit of fee	January 07, 2012

Test Centres: Online entrance test shall be conducted across country.
Note: No separate letter for Counselling shall be issued.

Number of seats:

Branch	No. of vacant seats			
	Gen	SC/ST	PH	Total
Biotechnology	1			1
Chemical Engineering	0			0
Civil Engineering	0			0
Computer Engineering	7	2	1	10
Computer Engineering-Chandigarh Campus	7	3		10
Electronics & Communication Engineering	8	3		11
Electronics (Inst & Ctrl) Engineering	0			0
Electrical Engineering	0			0
Industrial Engg-MBA*	2	1		3
Mechanical Engineering	2			2
Total	27	9	1	37

Admission Procedure:

1   The application form shall be filled Online at www.thapar.edu. After filling the form, attach Demand Draft of ₹2500/- (in favour of Thapar University payable at Patiala) with the print out of the application form. The application form shall be available shortly on www.thapar.edu.

2   The complete application must reach the admission cell on or before the last date.

3   Admission shall be made on the merit of the Entrance Test to be conducted by Thapar University.

4   Candidate is required to pay tuition fee and other dues at the time of admission.

Fee to be paid at the time of Counselling:

Without Hostel: ₹100250/-

With Hostel: ₹100250/-- + Room Rent +Other Dues as mentioned hereunder:

DETAIL OF FEE	Shared Room
HOSTEL DUES (PER SEMESTER)	
a) Room Rent	13200
b) Hostel Maintenance Charges	2800
c) Electricity Charges	4000
TOTAL HOSTEL DUES (₹)	₹20000

In addition ₹3500/- are to be deposited to Mess manager of Hostel allotted.

5   There will be only one counselling.

6   Candidate leaving after taking admission shall be refunded Caution Money and alumni fee only.

     25% seats shall be reserved for SC/ST category and 3% for physically handicapped category. In case, any seat in reserved category remains vacant, the same shall be converted to the General Category. ***Candidates from physically handicapped category are required to produce the Medical Certificate from the Chief Medical Officer of the District concerned, which should indicate the extent of permanent disability in support of their claim. Minimum 40% permanent disability is required to be eligible under this category.*** Further, the above provisions will be subject to the decision of the Admission Committee of the University whether such a candidate would be able to pursue the studies at the University with the specific disability. The decision of the Admission Committee in this regard shall be final. Although the University has taken care for the facilitation of the physically handicapped but the University will not be liable for providing any special facility that is not available at present. Such candidates may seek admission after satisfying themselves with regard to the existing facilities suitable to them. Should such a candidates feels any difficulty in sitting/teaching arrangements made by the University, she/he should request in writing to DoAA.

7   Candidate should bring all the documents in original at the time of Counselling.

     Documents required at the time of Counselling:

     Candidates must bring with them following original certificates and **a set of attested copies of all the certificates** at the time of admission (Counselling)**.**

- 10+2 DMC
- Matriculation/Higher Secondary Certificate showing Date of Birth
- Admit Card of Entrance Test conducted by Thapar University
- Character Certificate
- Medical Fitness Certificate
- Proof of admission in first semester of BE/BTech (Recent Bonafide student certificate)
- Affidavit required in case of discontinuity of studies
- Migration Certificate
- Income Certificate
- Result card of AIEEE(or any other test, if not appeared in AIEEE)

8   In case, a student of first year of Thapar University gets a seat under this scheme then the seat vacated by such candidate shall be offered to other candidates in the merit list.

9   Candidate should bring all the documents in original at the time of Counselling.

10   Every candidate must indicate in his/her application the category of seat for which he/she wants to apply. If no mention is made about the category, the candidate will be considered only for the general category. No candidate will be considered for admission against a reserved category for which he/she has not applied.

11   Incomplete application in any manner and received after the due date/time will be rejected. The University does not take any responsibility for postal delay or loss in transit of the application form.

12   The specimen of the format of the required certificates are available at end for the guidance of candidates. Each certificate must be submitted on the prescribed format and must be issued by the competent authority as mentioned, under proper seal/stamp of their office on a date prior to or on the last date for submission of application form.

13   If in the application form it is found that a candidate has concealed, suppressed or distorted any informaton/fact which would have rendered him/her ineligible to take the **Entrance Test,** his/her result of the test and also admission to the University, if granted, shall stand cancelled, and he/she will have no claim, whatsoever, against the University.

14   In case of any dispute, the decision of the Director, TU, Patiala shall be final and binding on the candidates.

15   The provisions may be changed by the competent authority without any notice.

16   In case, a student of first year of Thapar University gets a seat under this scheme then the seat vacated by such candidate shall be offered to other candidates in the merit list.

17   **Admitted candidates will have to submit the migration certificate from the earlier University/Board within a month of their admission.**

IMPORTANT INSTRUCTIONS:

1   The fee of ₹**2500/-** can be deposited through DD only.

2   The candidate must send a photocopy of the result card of AIEEE alongwith the application form. If not appeared in AIEEE then send the copy of result card of any other test in which appeared.

3   The candidate must send photocopy of the result card of 10+2 alongwith the application form.

4   The complete form alongwith DD, photocopies of AIEEE & 10+2 must be sent at following address:

> Incharge Admission Cell
> Academic Section
> Thapar University
> Patiala-147004
> Punjab (India)

5   In case of a tie among candidates securing equal marks in the merit list, the same will be broken in accordance with the following criteria:
(*a*) Candidate senior in age shall rank higher in order of merit.
(*b*) In the case of a tie in age also, a candidate getting higher percentage of marks in the qualifying examination shall be ranked higher in order of merit.
(*c*) In the case of a tie in percentage of marks in the qualifying examination also, a candidate securing higher percentage of marks in matriculation/secondary or equivalent examination shall rank higher in order of merit.

6   ADMIT CARD

Candidates shall be able to generate 'Admit Card' on www.thapar.edu provided their DD alongwith print out of application form reaches Thapar University in time. The login id and password created by candidate at the time of filling the application form shall be used to register for generation of Admit card.

After registering, the candidate shall take out two print outs of 'Admit Card", paste latest photograph on each and then come to the Entrance test centre. Alongwith admit cards, the candidate will also carry any one of the identity proof (Original) with him/her like Passport/Voter I Card/ PAN Card/ Driving License/Aadhaar. One copy of the Admit card shall be retained by the Entrance Test centre. The candidate shall

keep the other copy (duly acknowledged by the examiner at test centre) to be shown at the time of document checking

7   While registering for ONLINE entrance test on our website, the candidate shall choose entrance test centre of his/her choice from the available list and any one slot available in the test period given above i.e. (21.12. 2011 to 26.12.2011). Once slot is chosen, it cannot be changed thereafter.

8   Thapar University shall also send 'Admit Card' by email at the email address given   in the application form.
9   Filling of valid mobile number is mandatory.

GENERAL INFORMATION REGARDING BE/BTECH-DECEMBER 2011 ADMISSIONS INCLUDING ENTRANCE TEST SYLLABUS

Structure of the Entrance Test: It will be of 3 hours duration and shall contain 150 Objective/Multiplie choice questions of 1 mark each. 1/4 mark shall be deducted for every wrong answer:

Compulsory subjects		Number of Questions
1	English	20
2	Mathematics	20
3	Physics	20
4	Chemistry	20
Any two from following (S.No 5-7)		
5	Solid Mechanics	20
6	Computer Programming	20
7	Electrical and Electronic Science	20
Any two from following (S.No 8-10)		
8	Engineering Graphics	15
9	Thermodynamics	15
10	Manufacturing Process	15
	TOTAL	150

Syllabi of various subjects

ENGLISH

Communicative grammar-Spotting errors related to nouns, pronouns, adjective and adverbs. Changing voice from active to passive and Passive to Active. Idioms and phrases; Words often confused; One word substitutes; Formation of words (suffixes, prefixes and derivatives)

Written English- Types of writing (narrative, expository, analytical, descriptive); Structure of a paragraph; Fundamentals of letter writing.

Reading Skills –Process of reading; Various types of reading skills; Strategies to become an effective reader.

Speaking and Listening Skills-Elements of an effective talk; Oral presentations and designing & using audio visual aids; Process of listening; Recognition of barriers to listening; Developing good listening skills; Role of non verbal cues in speaking and listening.

Physics

Electromagnetic Waves: Introduction, Maxwell's equations in differential and integral forms, Concept of displacement current, Electromagnetic wave equations for free space, Conducting and dielectric medium, Poynting theorem, Concept of wave guides.

Light Waves: Interference: thin films, wedge-shaped films, non-reflecting films, Newton rings, Michelson interferometer, Diffraction: single, double and multiple slits, Dispersive and resolving powers. Polarization, its production, and detection.

Quantum Mechanics: Origin of quantum hypothesis, de-Broglie hypothesis of matter waves, Uncertainity principle, Wave function and wave mechanics, Schrodinger equation: steady state form,

Quantum mechanical operators, Expectation value, One dimensional solutions: zero potential, step potential, potential barrier and potential well.

Laser and Fiber Optics: Basic concepts, Laser properties, Laser systems: ruby, Nd:YAG, He-Ne and semiconductor lasers, Optical fiber, Basic theory, Acceptance angle, Numerical Aperture, Normalised Frequency, Mode of propagating ; materials dispersion and pulse dispersion in optical fiber; fiber connectors, splicers and couplers; application of optical fiber.

Magnetic Materials and superconductivity: Classification of magnetic materials, Types of magnetism, Magnetic anisotropy and magnetostriction, Magnetic domain, Hard and soft magnetic materials, Ferrites and their applications, Basic ideas of superconductivity, Type I and Type –II superconductors and their applications.

Chemistry

Water and its treatment: Specifications of water for different uses, Water for domestic uses, Different methods of water softening, Boiler feed water, Desalination of water

Electrochemistry: Migration of ions, Transference number, Diffusion and ionic mobility, Debye Huckel theory; Types of electrodes, Concentration cells with and without transference, Potentiometric titirations and conductometric titrations.

Phase Rule: Definitions of terms, Derivation of phase rule, One component and two component systems.

Polymers: Basic concepts, Classification and industrial application.

Spectroscopic Techniques: Law of absorption of light, Limitations and applications of Beer's law, Grotthus-Draper Law, Stark Einstein Law; Jablonski diagram, Types of molecular spectra, Introduction to atomic spectroscopy, Principle and applications of atomic absorption spectroscopy, UV/VIS, IR and NMR spectroscopy

Corrosion and its prevention: Corrosion, Different types of corrosion, Prevention of corrosion

MATHEMATICS

Applications of derivatives: Mean value theorems and their geometrical interpretation, Cartesian graphing using first and second order derivatives, polar curves, Polar equations for conic sections. Differential calculus of functions of several variables with applications, directional derivative, homogeneous functions and Euler's theorem, Jacobians, maxima and minima of functions of two variables .

Integral Calculus: Fundamental theorem of integral calculus applications of definite integral to area and arc length. Double and triple integration , and their applications to areas and volumes.

Vector Calculus: Differentiation and integration of vector valued functions, velocity, acceleration, tangent, principle normal and binormal vectors, Curvature and Torsion.,Gradient, Divergence and Curl. Line integrals, Work, Circulation and Flux. Green's theorem in Plane

Infinite Series: Introduction to sequences and Infinite series, Tests for convergence/divergence. Alternating series, Absolute convergence , conditional convergence, power series and its convergence.

Matrices: Rank and inverse of a matrix, Solution of linear system of equations.

Complex Numbers: De'Moivre's theorem and its applications.

SOLID MECHANICS

Review of Engineering Mechanics: Concept of force, representation and resolution of forces, free body diagrams, analysis of Pin jointed plane trusses.

Simple Stresses and Strains: Stress-strain curves for elastic materials, axial stress and strain, Hookes' law, Young's modulus of elasticity, Bulk modulus of rigidity and

Poisson's ratio, relationship between elastic constants, thermal stresses, principal planes and stresses.

Torsion: Concept of shear strain, Torsion of circular and hollow shafts, power transmitted.

Bending Moment and Shear force Diagrams: Types of beams, supports and loadings, sign conventions, relationship between load, shear force and bending moment, graphical plots of Shear Force and Bending Moments.

Bending and shear Stresses: Theory of simple bending, determination of stresses in simple and built -up sections, flitched beams, variation of shear stress across the depth of various beam sections

COMPUTER PROGRAMMING

Introductory Concepts : Elements of Computer Processing, Basic Concepts of Hardware and Software, Problem solving with Algorithms and Flowchart, Types of Programming Languages, Basic DOS and Linux Commands.

C Programming Concepts and Operators, Hierarchy of operators, Header files, Data input and output, Control statements: loops and Decision statements, Preprocessor directives, Storage classes, Array, Strings, Structures, Union, Enumerations, Functions, Fundamentals of pointers, File Handling in C, Command line arguments.

ELECTRICAL AND ELECTRONIC SCIENCE

Basic electrical quantities, electric circuit elements and their V-I relations, KCL, KVL, Ohm's law, combination of circuit elements, temperature dependency of resistance.

Mesh and Nodal Analysis, Star-Delta Transformation, Superposition theorem, Thevenin's and Norton's theorems, Maximum power transfer theorem, Transient (step) response of RL and RC series circuits.

Concept of Phasor, sinusoidal steady state response of RL, RC & RLC series and parallel circuits, power and power factors, resonance in series and parallel circuits, bandwidth, loss tangent and quality factor.

Concepts of magnetic circuits, analogy of magnetic circuit with electric circuit, B-H curve, ampere-turn calculation, constructional features and operating principle of single phase transformer and DC machine, characteristics and applications of DC motor.

Diode applications and characteristics, transistor operating modes and characteristics in various configurations, colour coding of low power resistors.

ENGINEERING GRAPHICS

Introduction and use of drafting tools, Lettering, Dimensions and standards, Projection systems, Orthographic projection of points and lines on reference planes, Auxiliary planes and their applications, Projection of surfaces, Projection and sections of solids, Intersection of solids, Development of surfaces, Orthographic projections from pictorial views, Isometric views. Missing lines and views

THERMODYNAMICS

Introduction: Basic Concepts : System, Control Volume, Surrounding, Boundaries, Universe, Types of Systems, Macroscopic and Microscopic viewpoints, Concept of

Continuum, Thermodynamic Equilibrium, State, Property, Process: Flow and non flow process, cycle concept of work and heat, Specific heats, Zeroth law, Energy and its form, pure substance, Thermodynamic diagrams, triple point, steam tables and their use.

First Law of Thermodynamics: Concept of internal energy & enthalpy, energy equation as applied to a close and open system, PMM of First kind. Transient flow processes. Charging and discharging of tanks.

Limitations of the First Law – Thermal Reservoir, Heat Engine, Heat pump, Parameters of performance, Second Law of Thermodynamics, Kelvin-Planck and Clausius Statements and their Equivalence/Corollaries, PMM of Second kind, Carnot's principle, Carnot cycle and its specialties, Thermodynamic scale of Temperature, Second law analysis of control volume.

Clausius Inequality, Entropy, Principle of Entropy Increase – Energy Equation.

Various cycles and systems: Rankine cycle, vapour compression refrigeration cycle, Air standard cycles: Otto, Diesel, Dual, Brayton cycles.

MANUFACTURING PROCESSES

Introduction: Common engineering materials and their important mechanical and manufacturing properties. General classification of manufacturing processes

Metal Casting: Principles of metal casting, Patterns, their functions, types, materials and pattern allowances, Characteristics of molding sand, Types of cores, chaplets and chills; their materials and functions.

Metal Forming And Shearing: Forging, rolling, drawing, extrusion, bending, spinning, embossing, shearing, piercing and blanking.

Machining Processes: Principles of metal cutting, cutting tools, their materials and applications, Geometry of single point cutting tool, Basic machine tools and their applications. Introduction to non-traditional machining processes (EDM, USM, CHM, ECM, and LBM).

Joining Processes: Electric arc, Gas, Resistance and Thermit welding, Soldering, Brazing and Braze welding, Adhesive bonding, Mechanical fastening.

FORMAT OF CERTIFICATE OF SCHEDULED CASTE

Despatch No.....................   Date........................

1.   It is certified that Mr./Ms. ....…………………………… son/daughter of Sh……...……………………………….of village/town ....……….................... district/division ……....................…… State of Punjab belongs to ....Caste which has been recognised as Scheduled Caste as per "The Constitution (Scheduled Castes) Order, 1950".

2.   Mr./Ms. …………………….. and his/her family lives in village/town ....………………. district/division of Punjab State.

Place ………………………….   Signature ………………………………………..

Date …………………………...   Designation ……………………………………

State …………………………..   (with official seal of the officer concerned)

SCHEDULED TRIBE CERTIFICATE

Same as for Scheduled Castes Candidates.

FORMAT OF MEDICAL CERTIFICATE

I certify that I have carefully examined Mr./Ms. …………….………………………………… son/daughter of Sh. ……………………………………………………………………………. His/her age is about ……………………..

His/her Chest Measurement is   Unexpanded ………………… Cm

                                                Expanded ……………………. Cm

His/her eyesight is upto the prescribed standards.

Details of glasses, if worn …………………………………………………………………

He/she has no disease or mental or bodily infirmity unfitting or likely to unfit him/her in the future for active outdoor service.

Blood Group_____

Marks of identification

Thumb impression

HEPATITIS "B" IMMUNISATION?   Yes ☐   No ☐

Dated ………………………

                                                Signature of Gazetted Medical Officer

                                                (with official Seal)

Attested passport size recent photograph

                                                Signature of Candidate

FORMAT OF

CERTIFICATE BY PRINCIPAL OF THE INSTITUTION LAST ATTENDED

Certified that Mr./Ms. …………………………………………………….. son/daughter of   Sh. …………………………….……………………………….. bears a good moral character and according to the School/College   record,   his/her   date   of   birth   is   (in   words) …………………………………………………………………………………. and his/her sUniversity/Board Registration No. is …………………

Place …………………..   Signature
Date …………………..   (with official seal)