

**I. K. Gujral Punjab Technical University**  
**Department of Mathematical Sciences**

Ref No.: IKGPTU/DMS/1000

Dated: 11/07/2019

**Minutes of the meeting of Board of Studies (BOS) of Mathematics held on July 11, 2019**

The meeting of Board of studies of Mathematics was held on 11/07/2019. The following members were present in the meeting

1. Dr. Vinay Kanwar, Professor, PU Chandigarh, Outside Expert
2. Dr. Amritbir Singh, Professor, BBSBEC, Fatehgarh Sahib
3. Dr. Manoranjan Mishra, Associate Professor, IIT Ropar
4. Dr. Ashish Arora, IKGPTU, Kapurthala, Chairman (Ex-officio)
5. Dr. Rajesh Kumar Narula, Asst. Prof, IKGPTU Kapurthala
6. Dr. Megha Goyal, BoS Coordinator, IKGPTU, Kapurthala
7. Dr. Gurjinder Singh, Special invitee, , IKGPTU, Kapurthala

The following recommendations were given by the Board:

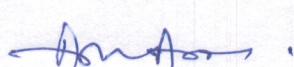
**Agenda 1. Framing the Structure and course contents of the subjects of B.Sc (Mathematics) Ist semester for the batch 2019 and onwards.**

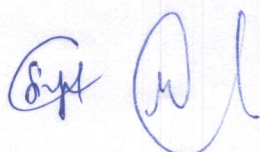
The Board finalized the Structure/Scheme and course contents of the subjects of B.Sc (Mathematics) Ist semester for the batch 2019 and onwards. The recommended course contents of the subjects of B.Sc (Mathematics) Ist semester will be formulated as per the suggestions of BOS and shall be sent to the members for their consent through email.

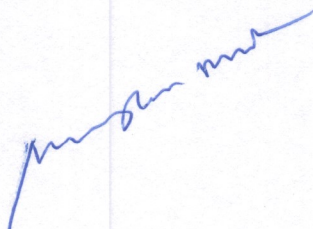
**Agenda 2. To Finalize the pattern of Question papers of B.Sc (Mathematics) and M.Sc. (Mathematics) for the batch 2019 and onwards.**

The Board discussed pattern of examination of B.Sc.(Hons.) Mathematics & M.Sc. Mathematics for batch 2019 onwards. The ratio of marks for external and internal exam as recommended by BOS will be 60:40. Also board recommended the following style of external paper (60 marks) for both B.Sc. and M.Sc. courses:

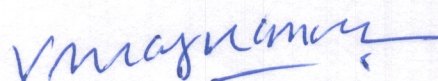
- 50 percent content of the external examination will be conceptual/numerical in nature and remaining 50 percent will be from theory.
- There should be three sections A, B and C in the question paper. Each section should be of twenty marks.
- Section A will contain ten objective type questions covering the whole syllabus and having two marks each.
- Section B will contain four questions having eight marks each. This section will cover the unit I & II of syllabus.

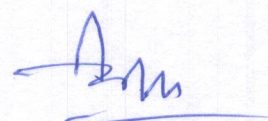












**I. K. Gujral Punjab Technical University**  
**Department of Mathematical Sciences**

- Section C will contain four questions having eight marks each. This section will cover the unit III & IV of syllabus.
- Sub-parts of the questions in Section B and C should be preferred for numerical/conceptual questions.

Section A will be compulsory. Students shall be asked to attempt any five questions from section-B and C, selecting at least two from each section.

While discussing the standard of question settings for the final examination, the board recommended that, for each course, COE may collect the question papers from more than one external experts to make a pool of question paper bank. The committee consisting of COE, HOD and one (more) external expert(s) avoiding any conflict of interest may be constituted to select the final question papers.

Internal marks (40) will be bifurcated as follow:

Average of Two MSTs	-	24
Assignments (Minimum two)	-	10
Attendance/General behavior	-	06

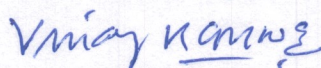
**Agenda 3. To revisit the Syllabus/structure of M.Sc. (Mathematics) of batch 2018 onwards.**

The board recommended the minor changes in the syllabus of certain subjects M.Sc (Mathematics) course of batch 2018 onwards and removal of number theory and cryptography lab.

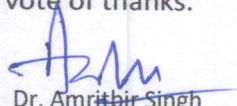
**Agenda 4: To revise the list of core subjects to be offered for pre-Ph.D course work (Mathematics)**

The Board recommended the addition of subject of specialization of each faculty of the department in the list of core subjects to be offered for Pre-Ph.D course work of Mathematics. The board recommended that the concerned faculty member shall prepare the course contents of the subjects to be incorporated in the list of pre-Ph.D course work and e-mail to the members of BOS for their consent/suggestions

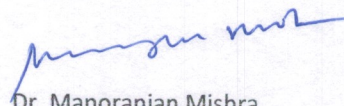
The meeting ended with the vote of thanks.



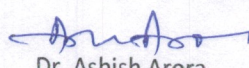
Dr. Vinay Kanwar



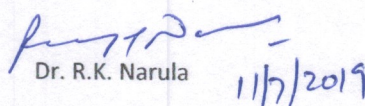
Dr. Amritbir Singh



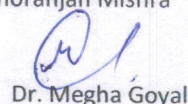
Dr. Manoranjan Mishra



Dr. Ashish Arora

  
11/7/2019

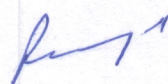
Dr. R.K. Narula



Dr. Megha Goyal



Dr. Gurjinder Singh



I.K. Gujral Punjab Technical University, Jalandhar

(Department Of Mathematical Sciences)

B.Sc. (Hons.) In Mathematics

Program Structure & Syllabus

(Choice Based Credit System)

For Batch 2019 Onwards

**Title Of the Program:** B.Sc. (Hons.) In Mathematics

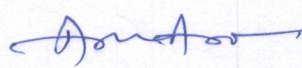
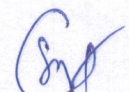
**Duration :** 3 Years (6 Semesters)

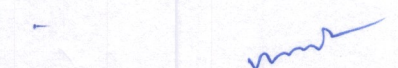
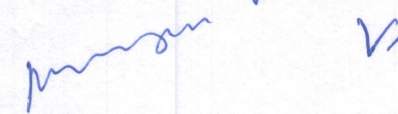
**Eligibility:** 50% in 10+2 in any stream with Mathematics as one of the main subjects.

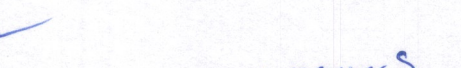
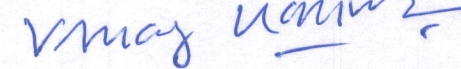
First Semester

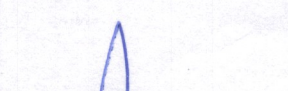
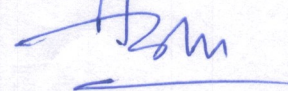
Total Credits:

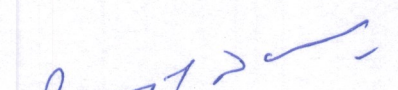
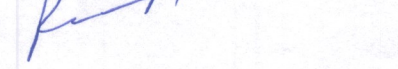
Course Code	Course Title	Load Allocation	T	P	Marks Distribution	External (EST)	Total	Credits
		L			Internal (MST)			
	Calculus -1	4	1	0	40	60	100	4
	Co-ordinate Geometry	4	1	0	40	60	100	4
	Programming-I	0	0	2				1
	Physics							
	Chemistry/Managerial Economics-I							
	Communicative English	2	0	0				2
	Punjabi/Punjab History and Culture	2	0	0				2

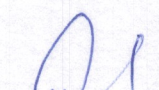

  


- List of Practicals for Programming-I

- i) Introduction to programming through (FORTRAN and C etc.)
- ii) Matrix Operation ( Addition ,Multiplication, inverse, Transpose)
- iii) Plotting of graphs of algebraic and transcendental function. (For example,  $e^{ax+b}$ ,  $\log(ax + b)$ ,  $\frac{1}{ax+b}$  with constants a, b etc. )
- iv) Obtaining Surface of revolution of curves.
- v) Tracing of conics in Cartesian Coordinates /Polar Coordinates.
- vi) Applications of derivative.

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11/7/2019

*viraj kumar*

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