



# UNIVERSITY OF GOUR BANGA

(Established under West Bengal Act XXVI of 2007)

N.H.-34 (Near Rabindra Bhawan), P.O.: Mokdumpur,  
Dist.: Malda, West Bengal, Pin-732 103

**UG Syllabus and Question Pattern (Honours & General)  
(Mathematics)**

## Main Feature of the Syllabus

### Mathematics (Honours)

Part / Course	Paper	Revised Paper Code	MCQ / Descriptive	Marks	Time	Total Marks	Total Time
Part-I	I	I-A	MCQ	20	30 Min	100	4.00 Hr
		I-B	Descriptive	80	3.30 Hr		
	II	II-A	MCQ	20	30 Min	100	4.00 Hr
		II-B	Descriptive	80	3.30 Hr		
Part-II	III	III-A	MCQ	20	30 Min	100	4.00 Hr
		III-B	Descriptive	80	3.30 Hr		
	IV	IV-A	MCQ	20	30 Min	100	4.00 Hr
		IV-B	Descriptive	80	3.30 Hr		
Part-III	V	V-A	MCQ	20	30 Min	100	4.00 Hr
		V-B	Descriptive	80	3.30 Hr		
	VI	VI-A	MCQ	20	30 Min	100	4.00 Hr
		VI-B	Descriptive	80	3.30 Hr		
	VII	VII-A	MCQ	20	30 Min	100	4.00 Hr
		VII-B	Descriptive	80	3.30 Hr		
	VIII	VIII-A	MCQ	10	30 Min	60	3.00 Hr
		VIII-B	Descriptive	50	2.30 Hr		
		IX	Practical	40	3.00 Hr	40	3.00 Hr

### Mathematics (General)

Part / Course	Paper	Revised Paper Code	MCQ / Descriptive	Marks	Time	Total Marks	Total Time
Part-I	I to III	I-A	MCQ	50	1.00 Hr	50	1.00 Hr
		I-B	Descriptive	100	3.00 Hr	100	3.00 Hr
Part-II	IV to VI	II-A	MCQ	50	1.00 Hr	50	1.00 Hr
		II-B	Descriptive	100	3.00 Hr	100	3.00 Hr
Part-III	VII	III-A	MCQ	30	30 Min	100	3.00 Hr
		III-B	Descriptive	70	2.30 Hr		

- ❖ Each MCQ Type Question carrying Two Marks
- ❖ Revised Paper Code as treated Official Paper Code
- ❖ Each Question (Descriptive Type) carrying Five Marks

## HONOURS COURSE

### PART I

PAPER	TOPIC	MARKS
I	Classical Algebra	30
	Abstract Algebra	25
	Linear Algebra	25
	MCQ	20
II	Real Analysis I	35
	Calculus of Functions of Several Variables	20
	Applications of Calculus	25
	MCQ	20

### PART II

PAPER	TOPIC	MARKS
III	Analytical Geometry of Two Dimensions	20
	Analytical Geometry of Three Dimensions	25
	Analytical Dynamics of a Particle	35
	MCQ	20
IV	Vector Algebra and Vector Analysis I	20
	Differential Equations (to be renamed Differential Equations I)	30
	Linear Programming and Game Theory	30
	MCQ	20

### PART III

PAPER	TOPIC	MARKS
V	Real Analysis II	50
	Metric Spaces	15
	Complex Analysis	15
	MCQ	20
VI	Probability and Statistics	40
	Numerical Analysis and Computer Programming	40
	MCQ	20
VII	Vector Analysis II	10
	Analytical Statics	25
	Rigid Dynamics (to be renamed Dynamics of Rigid Bodies)	25
	Hydrostatics	20
	MCQ	20
VIII A	Abstract Algebra II and Linear Algebra II	20
	Differential Equations (to be renamed Differential Equations II)	15
	Tensor Calculus	15
	MCQ	10
VIII B	Practical	40

**GENERAL COURSES:****PART I**

<b>PAPER</b>	<b>TOPIC</b>	<b>MARKS</b>
I	Classical Algebra	15
	Modern Algebra (to be renamed Linear Algebra and Abstract Algebra)	15
	Vector Algebra	10
	Analytical Geometry of Two and Three Dimensions	25
	Differential Calculus	35
II	MCQ	50

**PART II**

<b>PAPER</b>	<b>TOPIC</b>	<b>MARKS</b>
II	Integral Calculus	20
	Ordinary Differential Equations	10
	Probability and Statistics	20
	Numerical Analysis	15
	Linear Programming	15
	Analytical Dynamics of a Particle	20
	MCQ	50

**PART III**

<b>PAPER</b>	<b>TOPIC</b>	<b>MARKS</b>
VII	Elements of Computer Science and Programming	35
	Discrete Mathematics	35
OMR		30

NOTE. ∴ In case of Part II and Part III (to be started from Academic sessions 2016-17 and 2017-18 respectively) General, the Board faced certain hurdles regarding distribution of marks, in order to maintain alternatives and maintain parity with the contents of the syllabi. To be specific, regarding General, Old syllabi papers VI and VII, we unanimously recommend deletion of some alternatives (**Elements of Difference Equations and Calculus of Variations in Paper – VI and A Course of Calculus in Paper – VII**). We also request the Controller of Examinations, University of Gour Banga, to add this matter in particular to the agenda of the next meeting of Board of Studies or to place it to competent authority for necessary approval.