



UNIVERSITY OF CALICUT

Abstract

General and Academic- Faculty of Humanities- Syllabus of BA Economics Programme (I & II Semester) under CBCSS UG Regulations 2019 with effect from 2019 Admission onwards - Implemented- Orders Issued

G & A - IV - B

U.O.No. 8482/2019/Admn

Dated, Calicut University.P.O, 30.06.2019

*Read:-*1.UO. No. 4368/2019/Admn Dated: 23.03.2019

2.Minutes of the meeting of the Board of Studies in Economics - UG held on 31.05.2019 (Items no.1)

3.Minutes of the meeting of Faculty of Humanities held on 19.06.2019 (Item No.14)

ORDER

The Regulations for Choice Based Credit and Semester System for Under Graduate (UG)Curriculum-2019 (CBCSS UG Regulations 2019) for all UG Programmes under CBCSS-Regular and SDE/Private Registration with effect from 2019 Admission has been implemented vide paper read first above.

The meeting of the Board of Studies in Economics-UG held on 31.05.2019 vide Item no.1 has approved the Syllabus of BA Economics Programme (I and II Semester) in tune with new CBCSS UG Regulation implemented with effect from 2019 Admission onwards, vide paper read second above.

The Faculty of Humanities at its meeting held on 19.06.2019 has approved item No.1 of the minutes of the meeting of the Board of Studies in Economics-UG held on 31.05.2019, vide paper read third above.

Under these circumstances, considering the urgency, the Vice Chancellor has accorded sanction to implement the Scheme and Syllabus of I and II Semester of BA Economics Programme in accordance with the new CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards, subject to ratification by the Academic Council.

Sanction is therefore accorded for implementing the Scheme and Syllabus of I and II Semester of BA Economics Programme in accordance with CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards.

Orders are issued accordingly. (Syllabus appended)

Biju George K

Assistant Registrar

To

1.The Principals of all Affiliated Colleges 2. Director, SDE

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Section Officer

CHOICE BASED CREDIT AND SEMESTER SYSTEM FOR UNDER GRADUATE (UG) PROGRAMME

UNIVERSITY OF CALICUT



**For
BA Economics (2019-20 Admissions Onwards)**

Under

**Calicut University Regulations Choice Based Credit
And Semester System For Under Graduate
(UG)Curriculum -2019 (CBCSSUG 2019)**

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Foreword

Economics is about *choice* and the impact of our choices on each other. It relates to every aspect of our lives, from the decisions we make as individuals or families to the structures created by governments and firms. The economic way of thinking can help us make better choices. An undergraduate degree in economics seeks to educate students about how choices are made by consumers, workers and firms, and how these decisions aggregate into economy-wide phenomena. At the same time, one should remember that Economics is not primarily a collection of facts to be memorized, though there are plenty of important concepts to be learned. Instead, economics is better thought of as a collection of questions to be answered or puzzles to be worked out. Most important, economics provides the tools to work out those puzzles. Learning about economics helps you understand the major problems facing the world today, prepares you to be a good citizen, and helps you become a well-rounded thinker.

Among the phenomena that influence our society, those related to the economy attract much attention. Unemployment, inflation, interest rates, exchange rates, jobs, productivity, investment are terms encountered daily in the media. It is not always easy to unravel the mass of information which is conveyed. Economics is the discipline that seeks to understand such phenomena and analyze the relationships between them. More precisely, economics examines how a country's resources are used to fulfill the needs of its citizens. It is concerned with the production, distribution and consumption of goods and services. A well trained economist develops many sensibilities and capacities to understand and improve the workings of various facets of life. The undergraduate program is designed to help produce economists who are socio-politically engaged, quantitatively adept, historically informed and philosophically grounded.

Keeping in mind the above objectives, the new UG Curriculum has incorporated many of the recent economic theories and concepts in the syllabus to equip the students to be thorough in the area of Economics. We have introduced new core courses like Development of Economic

Thought, Financial Economics, Behavioural Economics and Basic Econometrics along with a thorough revision of the existing courses.

The finalization of the current syllabus is the result of various deliberations and personal communications with the experts and resource persons in the branch of Economics in and outside the university. I thank one and all for bringing out drastic changes in the existing syllabi of UG Economics of University of Calicut. A special thanks to the honorable Board Members whose efforts and support has made my task easy. I request the student body to make use the curriculum and syllabi for your better future.

Dr. C. Krishnan
Chairman (UG Board of Economics)

LIST OF UG BOARD MEMBERS OF ECONOMICS

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Revised Curriculum of BA Programme in Economics

(Effective from 2019-20 Admissions)

1. Aims and Objectives

The Bachelor's degree Programme in Economics aims to provide theoretical and practical knowledge that makes accurate analysis of the economic situation possible. The Calicut University Economics graduates must be able to understand the interrelation between the economy and society; to consider economic problems from a global perspective and take a local approach to solving them; to make connections between an economic system's different components; to gauge the implications of decisions related to economic policy; and to respond to the economic problems arising from society in general and the different units that interact therein (e.g. institutions, private companies and sectors of the economy). The curriculum covers topics from expanding markets to the impact of 2008 global financial crisis. It provides an excellent background for those who plan careers in government and private enterprise as well as those pursuing graduate degrees in professional schools or in the field of economics

2. *Programme Outcomes:*

The learners are expected to demonstrate the following: :

- Critically evaluate and apply the theories and techniques of economics.
- Demonstrate subject-specific 'thinking' skills that are readily transferable to problem solving and decision making in a wider context.
- Enhance their lifelong learning, employing a range of practical and professional skills.
- Find, evaluate, synthesize and use information from a variety of sources
- Articulate an awareness of the social and community contexts within their disciplinary field

3. BA Programmes in Economics

The Board is presenting revised syllabus for BA Economics Programmes with four different Specializations, viz.,

1. BA Economics
2. BA Development Economics
3. BA Economics with Foreign Trade
4. BA Economics with Islamic Finance

While most of the core papers remain part of all the programmes, there are some additional courses depending upon the specializations. While BA Development Economics has some additional courses related to development issues, BA Economics with Foreign Trade Programme specializes in foreign trade practices. BA Economics with Islamic Finance gives thrust to Islamic finance. All the three programmes (BA Development Economics; BA Economics with Foreign Trade and BA Economics with Islamic Finance) are equivalent to BA Economics (Regular) programme for the purpose of employment and higher studies.

4. Eligibility for admission:

Any candidate who passed Plus Two of the Higher Secondary Board of Kerala or equivalent examinations of any other University or Board of Examinations in any state recognized as equivalent to Plus Two of the Higher Secondary Board in Kerala. However, the candidates who have studied Economics for the qualifying examinations shall be given some weightage while calculating the index marks for admission.

5. Duration of the programme:

The duration of the BA Economics programme is three academic years with six semesters

6. Medium of Instruction and Examination

The medium of instruction and question papers are in English only. However, the students have the option to answer the questions either in English or in Malayalam.

7. Course Structure

The UG programme shall include five types of courses, viz; Common Courses (Code A), Core courses (Code B), Complementary courses (Code C), Open Course (Code D) and Audit courses (Code E).

8. **Common Courses:** In general, every UG student shall undergo 10 common courses (total 38 credits) chosen from a group of 14 common courses listed in the UG Regulation , for completing the programme.
9. **Core Courses:** Core courses are the courses in the major (core) subject of the degree programme chosen by the student. There are 14 Core courses in the BA Economics programme.
10. **Complementary courses:** Complementary courses cover one or two disciplines that are related to the core subject and are distributed in the first four semesters. There shall be one complementary course in a semester for B.A Programmes. The complementary courses in first and fourth semester (Type 1) shall be the same. Similarly the complementary courses in second and third semester (Type 2) shall be the same. The college can choose any complementary course either in Type 1 or in Type 2 for a programme. Once they choose the complementary courses that should be intimated to the university. If a college wants to change the complementary course pattern (Type 1 or Type 2) prior sanction has to be obtained.
11. **Open courses:** Open courses are the courses offered by a department to the students of other departments. Students can select a course of their own choice offered by other departments. There shall be one open course in core subjects in the fifth semester. The open course shall be open to all the students in the institution except the students in the parent department. The students can opt that course from any other department in the institution. Each department can decide the open course from a pool of three courses offered by the University. Total credit allotted for open course is 3 and the hours allotted is 3. If there is only one programme in a college, they can choose either language courses or physical education as open course.

12. Elective Course

Under the choice-based credit semester system, there is the provision of an elective course. The university offers three elective courses in the sixth semester of a programme and of which the college can choose one.

13. **Ability Enhancement courses/Audit courses:** These are courses which are mandatory for a programme but not counted for the calculation of SGPA or CGPA. There shall be one Audit course each in the first four semesters. These courses are not meant for class room study. The students can attain only pass (Grade P) for these courses. At the end of each semester there shall be examination conducted by the college from a pool of questions (Question Bank) set by the University. The students can also attain these credits through online courses like SWAYAM, MOOC etc (optional). The list of passed students must be sent to the University from the colleges at least before the fifth semester examination. The list of Audit courses in each semester with credits are given below.

SL.No.	Course	Credit	Semester
1	Environment Studies	4	1
2	Disaster Management	4	2
3	*Human Rights/Intellectual Property Rights/ Consumer Protection	4	3
4	*Gender Studies/Gerontology	4	4

* Colleges can choose any one of the courses.

Altogether there will be 34 courses in the Programme with 14 Core Courses, 10 Common Courses, two Complementary Courses (spread over 4 semesters), one Elective course, one Open Course and four Audit Courses. In addition, there shall be a project work or a theory paper on Research Methodology in the Sixth semester. The Project work is to be handled by the Economics faculty in each college.

14. Credit Distribution of the Programme

A student is required to acquire a minimum of 140 credits for the completion of the UG Programme, of which 120 credits are to be obtained from class room study and shall only be counted for SGPA and CGPA. Out of the 120 credits, 38 (22 for common (English) courses plus 16 for common languages other than English) credit shall be from common courses, two credits for project/corresponding paper and three credits for the open course. The maximum credits for a course shall not exceed five. Audit courses shall have four credits per course and a total of 16 credits in the entire programme. The maximum credit acquired under extra credit shall be four. If more Extra Credit activities are done by a student, that may be mentioned in the Grade Card. Please remember that the credits of Audit courses and Extra credits are not counted for SGPA or CGPA. To have a better look at the credit distribution, refer the table below:

Table 2: Distribution of Credit among various courses, Semester-wise

Semester/ Credits	Common courses	Complementary courses	Core Courses	Open Course	Elective Course	Total
I	10	4	5	--	--	19
II	12	4	5	--	--	21
III	8	4	8	--	--	20
IV	8	4	8	--	--	20
V	--	--	16	3	--	19
VI	--	--	18	--	3	21
Total	38	16	60	3	3	120

Note: Note: In addition, there are 16 credits of Audit courses spread over the first four semesters and 4 extra credits as mandatory to complete the BA Economics Programme.

15. Extra Credits

Extra credits are mandatory for the programme. Extra Credits will be awarded to students who participate in activities like NCC, NSS and Swatch Bharath. Those students who could not join in any of the above activities have to undergo the Calicut University Social Service Programme (CUSSP).

16. CALICUT UNIVERSITY SOCIAL SERVICE PROGRAMME (CUSSP)

In this programme, a student has to complete 12 days of social service. This has to be completed in the first four semesters; 3 days in each semester. For the regular programme the student has to work in a Panchayath or Local body or in a hospital/ poor home or old age home or in a Pain & palliative centre or any social work assigned by the College authorities. Students who engage in College Union activities and participate in sports and cultural activities in Zonal level have to undergo only 6 days of CUSSP during the entire programme. The whole documents regarding the student should be kept in the college and the Principal should give a Certificate for the same. The list of students (successfully completed the programme) must be sent to the University before the commencement of the fifth semester examinations. A College level Coordinator and a Department level Co-ordinator shall be appointed for the smooth conduct of the programme

17. Course Code

As already stated, the UG programme shall include five types of courses, viz; Common Courses (Code A), Core courses (Code B), Complementary courses (Code C), Open Course (Code D) and Audit courses (Code E). Each course shall have a unique alphanumeric code number, which includes abbreviation of the subject in three letters, the semester number (1 to 6) in which the course is offered, the code of the course (A to E) and the serial number of the course (01,02). The course code will be centrally generated by the university. For example: ENG2A03 represents a common course of serial number 03 offered in the second semester and ECO2B02 representing second semester Core course 2 in Economics programme. The four variants of UG Economics programme of University of Calicut have different subject code as given here under:

Sl.No.	Programe(s)	Subject code of Core Course
1	BA Economics programmes	ECO
2	BA Development Economics	DEC
3	BA Economics with Foreign Trade	EFT
4	BA Economics with Islamic Finance	EIF

18. Structure/Scheme of BA Economics Programme

The semester-wise scheme of BA Economics programme is presented here under.

SEMESTER I							
Course	Code	Name of the paper	Hours	Credit	IE	EE	Total
Common I	A01	Common English Course I	4	3	20	80	100
Common II	A02	Common English Course II	5	3	20	80	100
Common III	A07(1)	Additional Language Course I	4	4	20	80	100
Core 1	ECO1 B01	Microeconomics I	6	5	20	80	100
Complementary (Type 1-Course I)			6	4	20	80	100
Ability Enhancement/Audit I	AUD1E01	Environment Studies	--	4	--	100	100
Total			25	23			

SEMESTER II							
Course	Code	Name of the Course	Hours	credit	IN	EE	Total
Common IV	A03	Common English Course III	4	4	20	80	100
Common V	A04	Common English Course IV	5	4	20	80	100
Common VI	A08(1)	Additional Language Course II	4	4	20	80	100
Core 2	ECO2 B02	Macroeconomics I	6	5	20	80	100
Complementary (Type 2-Course I)			6	4	20	80	100
Ability Enhancement/Audit 2	AUD2E02	Disaster Management	--	4	--	100	100
Total			25	25			

SEMESTER III

Course	Code	Name of the Course	Hours	credit	IN	Es	Total
Common VI I	A05	Common English Course V	5	4	20	80	100
Common VIII	A09	Additional Language Course III	5	4	20	80	100
Core 3	ECO3 B03	Quantitative Methods for Economic Analysis I	5	4	20	80	100
Core 4	ECO3 B04	Microeconomics II	4	4	20	80	100
Complementary (Type 2-Course 2)			6	4	20	80	100
Ability Enhancement/Audit 3	AUD3E03	Human Rights/Intellectual Property Rights/ Consumer Protection	-	4	--	100	100
Total			25	24			

SEMESTER IV

Course	Code	Name of the Course	Hours	credit	IN	EE	Total
Common IX	A06	Common English Course VI	5	4	20	80	100
Common X	A10	Additional Language Course IV	5	4	20	80	100
Core 5	ECO4 B05	Quantitative Methods for Economic Analysis II	5	4	20	80	100
Core 6	ECO4 B06 –	Macroeconomics II	4	4	20	80	100
Complementary (Type 1-Course 2)			6	4	20	80	100
Ability Enhancement/Audit 4	AUD4E04	Gender Studies/Gerontology	-	4	--	100	100
Total			25	24			

SEMESTER V

Course	Code	Name of the Course	Hours	credit	IN	EE	Total
Core 7	EC05 B07	Fiscal Economics	6	4	20	80	100
Core8	ECO5 B08	Indian Economic Development	6	4	20	80	100
Core 9	ECO5 B09	Economics of Capital Market	5	4	20	80	100
Core 10	ECO5 B10	Mathematical Economics	5	4	20	80	100
Open Course		To be selected from any other Departments	3	3	15	60	75
Total			25	19			

SEMESTER VI

Course	Code	Name of the Course	Hours	credit	IN	EE	Total
Core 11	ECO6 B11	Financial Economics	5	4	20	80	100
Core 12	EC06 B12	International Economics	5	4	20	80	100
Core 13	ECO6 B13	Development of Economic Thought	5	4	20	80	100
Core 14	ECO6 B14	Economics of Growth and Development	5	4	20	80	100
Elective(Choose one among the three)	ECO6 B16	Basic Econometrics	3	3	15	60	75
	ECO6 B17	Behavioural Economics					
	ECO6 B18	Urban Economics					
Project	ECO6 B15	Project work/Research Methodology	2	2	10	40	50
Total			25	21			

Note: A compulsory study tour is recommended as part of the paper entitled "Indian Economic Development", in the Fifth Semester. The tour report should be submitted to the Head of the Department within two weeks of the tour.

19. Distribution of courses in each semester

As per the UG regulation, the courses are distributed over various semesters. For the information of the stakeholders, the details are provided here with. The semester-wise distribution of courses for the completion of BA Economics Programme is given in the following Table.

Course/Semester	I	II	III	IV	v	VI
Common	3	3	2	2	--	--
Core	1	1	2	2	4	4
Complementary	1	1	1	1	--	--
Audit/Ability enhancement	1	1	1	1	--	--
Open	--	--	--	--	1	--
Elective	--	--	--	--	--	1
Project/Theory	--	--	--	--	--	1
Total	6	6	6	6	5	6

20. Core Courses at a Glance

A glance at the core courses offered in the BA Economics is given in the table:

Semester	Course code	Name of Course
I	ECO1 B01	Microeconomics I
II	ECO2 B02	Macroeconomics I
III	ECO3 B03	Quantitative Methods for Economic Analysis I
	ECO3 B04	Microeconomics II
IV	ECO4 B05	Quantitative Methods for Economic Analysis II
	ECO4 B06	Macroeconomics II
V	ECO5 B07	Fiscal Economics
	ECO5B08	Indian Economic Development
	ECO5 B09	Economics of Capital Market
	ECO5 B10	Mathematical Economics
VI	ECO6 B11	Financial Economics
	ECO6B12	International Economics
	ECO6 B13	Development of Economic Thought
	ECO6B14	Economics of Growth and Development
	ECO6 B15	Project/Research methodology

21. Complementary Courses

Colleges can choose from the complementary courses offered by the University without affecting the existing workload. The syllabus for complementary courses of sister departments are prepared by the respective Boards of studies. The following complementary courses are suggested for the BA Economics programme with the option for choice (**two Complementary courses can be selected**).

1. **History**
2. **Political Science**
3. **Sociology**
4. **Psychology**
5. **Mathematical Tools for Economics**
6. **Co-operation**
7. **Banking**
8. **Introductory Economics (For Non-Economics Programmes)**

22. Open Courses

During the Fifth Semester three Open courses are offered to the students of other departments. Colleges can choose any one course from the three listed below.

- ECO5 D01 - Economics in Everyday Life**
- ECO5 D02 – Indian Financial System**
- ECO5 D03 – Kerala Economy**

23. Elective Courses

During the Sixth Semester, three elective courses are offered for BA Economics Programme. Colleges can choose any one course from the three listed below.

- ECO6 B16 –Basic Econometrics**
- ECO6 B17 – Behavioural Economics**
- ECO6 B18 – Urban Economics**

24. Project - ECO6 B15 (Pr)

As part of the requirements for BA Programme, regular students have an option to carry out a project either individually or as a group, under the supervision of a teacher. Project work is meant for providing an opportunity to approach and study a problem in a systematic and scientific manner. It provides them an opportunity to apply the tools they have studied and learn the art of conducting a study and presenting the report in a structured way. The report of the project, completed in every respect, is to be submitted to the department for valuation by the examiners appointed by the University. The college may also choose a theory course on Research Methodology instead of Project work. But a college cannot choose both project and research methodology course simultaneously.

25. Study Tour

A compulsory study tour is recommended as part of the paper entitled "Indian Economic Development" in the Fifth Semester and the tour report should be submitted to the Head of the Department soon after the tour.

26. Assessment and Evaluation

Mark system is followed instead of direct grading for each question. For each course in the semester letter grade and grade point are introduced in 10-point indirect grading system as per guidelines. The evaluation scheme for each course shall contain two parts: 1) Internal assessment 2) External Evaluation. 20% weight shall be given to the internal assessment. The remaining 80% weight shall be for the external evaluation.

26.1. Internal Evaluation:

The internal assessment shall be based on a pre-determined transparent system involving written tests, Class room participation based on attendance in respect of theory courses and lab involvement/records attendance in respect of Practical Courses. Internal assessment of the project will be based on its content, method of presentation, final conclusion and orientation to research aptitude. Components with percentage of marks of Internal Evaluation of Theory Courses are- Test paper 40%, Assignment 20%, Seminar 20% and Class room participation based on attendance 20%.

For the test paper marks, at least one test paper should be conducted. If more test papers are conducted, the mark of the best one should be taken. To ensure transparency of the evaluation process, the internal assessment marks awarded to the students in each course in a semester shall be notified on the notice board at least one week before the commencement of external examination. There shall not be any chance for improvement for internal marks. The course teacher(s) shall maintain the academic record of each student registered for the course, which shall be forwarded to the University by the college Principal after obtaining the signature of both course teacher and Head of the Department. The Split up of marks for Test paper and Class Room Participation (CRP) for internal evaluation are as follows.

Split up of marks for Test paper

Range of Marks in test paper	Out of 8 (Maximum internal marks is 20)	Out of 6 (Maximum internal marks is 15)
Less than 35%	1	1
35-45%	2	2
45-55%	3	3
55-65%	4	4
65-85%	6	5
85-100%	8	6

Split up of marks for Class Room Participation

Range of CRP	Out of 4 (Maximum Internal marks is 20)	Out of 3 (Maximum internal marks is 15)
50% ≤CRP <75%	1	1
75% ≤CRP <85%	2	2
85 % and above	4	3

26.2. External Evaluation

External evaluation carries 80% of marks. All question papers shall be set by the University. The external question papers may be of uniform pattern with 80/60 marks. The courses with 2/3 credits will have an external examination of 2 hours duration with 60 marks and courses with 4/5 credits will have an external examination of 2.5 hours duration with 80 marks. The external examination in theory courses is to be conducted by the University with question papers set by external experts. The project evaluation with viva can be conducted either internal or external which may be decided by the Board of Studies concerned. Guidelines are given in the syllabus. After the external evaluation only marks are to be entered in the answer scripts. All other calculations including grading are done by the University.

Evaluation of Audit courses: The examination shall be conducted by the college itself from the Question Bank prepared by the University. The Question paper shall be of 100 marks of 3 hour duration. For SDE/Private students it may be of MCQ/ fill in the blank type questions or Online question paper may be introduced.

26.3. Method of Indirect Grading

Evaluation (both internal and external) is carried out using Mark system .The Grade on the basis of total internal and external marks will be indicated for each course, for each semester and for the entire programme. Indirect Grading System in 10 -point scale as depicted in the table. An aggregate of P grade (after external and internal put together) is required in each course for a pass and also for awarding a degree (A minimum of 20% marks in external evaluation is needed for a pass in a course. But no separate pass minimum is needed for internal evaluation). No separate grade/mark for internal and external will be displayed in the grade card; only an aggregate grade will be displayed. Also the aggregate mark of internal and external are not displayed in the grade card. A student who fails to secure a minimum grade for a pass in a course is permitted to write the examination along with the next batch.

Percentage of Marks (Both Internal & External put together)	Grade	Interpretation	Grade point Average (G)	Range of grade points	Class
95 and above	O	Outstanding	10	9.5-10.0	First Class with Distinction
85 to below 95	A+	Excellent	9	8.5 -9.49	
75 to below 85	A	Very Good	8	7.5 -8.49	
65 to below 75	B+	Good	7	6.5 -7.49	First Class
55 to below 65	B	Satisfactory	6	5.5 -6.49	
45 to below 55	C	Average	5	4.5 -5.49	Second Class
35 to below 45	P	Pass	4	3.5 -4.49	Third Class
below 35	F	Failure	0	0	Fail
Incomplete	I	Incomplete	0	0	Fail
Absent	Ab	Absent	0	0	Fail

27. External Examination Scheme

There shall be University examinations at the end of each semester. Each question should aim at – (1) assessment of the knowledge acquired (2) standard application of knowledge (3) application of knowledge in new situations. Different types of questions shall possess different marks to quantify their range. Project evaluation shall be conducted at the end of sixth semester. 20% of marks are awarded through internal assessment.

Question paper type 1- Scheme of Examinations:

The external Question Paper (QP) with 80 marks and internal examination is of 20 marks. Duration of each external examination is 2.5 Hrs. The pattern of External Examination is as given below. The students can answer all the questions in Sections A & B. But there shall be Ceiling of marks in each section.

Section	Type of Question	No. of Questions	All Questions may be answered	Marks for each question	Ceiling of Marks	Total marks
A	Short Answer Type	15	15	2	25	25
B	Paragraph/problem type	8	8	5	35	35
C	Essay Type	4	2	10	20	20
	Total	27	25	--	80	80

Question paper type 2: Scheme of Examinations:

The external QP with 60 marks and Internal examination is of 15 marks. Duration of each external examination is 2 Hours. The pattern of External Examination is as given below. The students can answer all the questions in Sections A & B. But there shall be Ceiling of marks in each section.

Section	Type of Question	No. of Questions	All Questions may be answered	Marks for each question	Ceiling of Marks	Total marks
A	Short Answer Type	12	12	2	20	20
B	Paragraph/problem type	7	7	5	30	30
C	Essay Type	2	1	10	10	10
	Total	21	20	--	60	60

28. PROJECT EVALUATION- Regular scheme only

1. Evaluation of the Project Report shall be done under Mark System.
2. The evaluation of the project will be done at two stages :

- a) Internal Assessment (supervising teachers will assess the project and award internal Marks)
- b) External evaluation (external examiner appointed by the University)
- c) Grade for the project will be awarded to candidates, combining the internal and external marks.
3. The internal to external components is to be taken in the ratio 1:4. Assessment of different components may be taken as below:

Internal (20% of total)			External (80% of total)		
Component	% of Marks	Marks	Components	% of Marks	Marks
Originality	20	2	Relevance of the Topic, Statement of Objectives	20	8
Methodology	20	2	Reference, Bibliography/Presentation, quality of Analysis/ Use of Statistical Tools	20	8
Scheme/organization of the report	30	3	Findings and recommendations	30	12
Viva-Voce	30	3	Viva-voce	30	12
Total	--	10		--	40

4. External Examiners will be appointed by the University from the list of VI Semester Board of Examiners in consultation with the Chairperson of the Board.
5. The Chairman of the VI semester examination should form and coordinate the evaluation teams and their work.
6. Internal Assessment should be completed 2 weeks before the last working day of VI Semester.
7. Internal Assessment marks should be published in the Department.
8. The Chairman Board of Examinations, may at his discretion, on urgent requirements, make certain exception in the guidelines for the smooth conduct of the evaluation of project.

PASS CONDITIONS

- Submission of the Project Report and presence of the student for viva are compulsory for Internal evaluation. No marks shall be awarded to a candidate if she/ he fails to submit the Project Report for external evaluation.

- The student should get a minimum P Grade in aggregate of External and Internal.
- There shall be no improvement chance for the Marks obtained in the Project Report.
- In the extent of student failing to obtain a minimum of Pass Grade, the project work may be re-done and a new Internal mark may be submitted by the Parent Department. External examination may be conducted along with the subsequent batch.

29. PROJECT GUIDELINES

The Project work may be done either individually or as a group of students not exceeding 5 in number. The topic of the project should be on any economic issues either theoretical or case study type. Please note that Projects using primary data is desirable. The Project work should be completed by the end of the VI semester and a copy of the report (printed or typed in English) should be submitted to the Department. Length of the project report may be 30 to 35 typed pages (Paper A4, Times New Roman, Font size 12, line spacing 1.5). The report may be organized in 4 to 5 chapters. The use of simple statistical tools in data analysis may be encouraged. Project evaluation and the Viva-Voce should be conducted immediately after the completion of the regular classes /written examination. The chairman of the VI semester exam should form and coordinate the evaluation teams and their work. External Examiners will be appointed by the University from the list of VI semester Board of Examiners in consultation with the Chairman of the Board. Presence of Student for viva-voce is compulsory for internal and external evaluation.

30. Basic contents of a Project Report

Every project report should contain an introductory chapter covering the significance of the study, objectives, methodology, chapter frame and limitation of the study. A detailed review of previous studies forms the second chapter. The third chapter may contain the profile of the study area or sampled unit. In the Fourth chapter, the analysis of the data and the final chapter should be the summary of findings and conclusion. The report should also contain a detailed bibliography and Appendices if any.

XX

CORE COURSES

Detailed Syllabi

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Semester I

Course Category	Core Course 1
Course Title and Code	ECO1 B01
No. of Credits	5
No. of Contact Hours	6 Hours per week

Microeconomics - I

Preamble: This course is designed to expose first semester students, who may be new to economics, the basic principles of microeconomic theory. The emphasis will be on thinking like an economist and the course will illustrate how microeconomic concepts can be applied to analyze real-life situations.

Module I: Exploring the Subject Matter of Economics

Why study economics? Micro Versus Macro- Concepts of wealth, welfare, scarcity and growth - The scope and method of economics- Induction and deduction-Positive and normative economics-Value judgments- scarcity and choice- the basic problems of an economy- Production Possibility curve- basic competitive model- economic systems.

Module II: Demand and Supply Analysis

Concept of Demand- Law of Demand- Determinants of demand – Types of Demand – Demand Function – Market Demand Curve - Elasticity of Demand – Price, Income and Cross elasticity of demand –Measures of Elasticity of Demand. Demand Forecast Meaning- Factors influencing demand forecast. Concept of Supply – Law of Supply – Determinants of Supply – Supply Function – Elasticity of Supply – Market Supply Curve -Market Equilibrium.

Module III: Theory of Consumer Behaviour

Utility Analysis – Cardinal and Ordinal approaches – Law of Diminishing Marginal Utility – Law of Equi-marginal utility, indifference curve, properties of indifference curves – Price (Budget) line – Equilibrium of the Consumer with the help of indifference curves – Price, Income and Substitution effect- Derivation of individual demand curve for normal good –

Decomposition of Price effect into income effect and substitution effect – Hicksian and Slutsky's methods – Normal, inferior and Giffen goods – Application of Indifference Curves - Theory of Revealed Preference – Revealed Preference axioms - Consumer surplus - Marshall and Hicks.

Module IV: Theory of Production and Costs

Concept of Production – Production Function – Scale of production- short run versus long run production function- Law of Variable Proportions – Law of Returns to Scale – the Isoquant-Isocost Approach-producers equilibrium-expansion path- Internal and External Economies-Cobb-Douglas production function -Cost function and Cost concepts- Traditional theory of costs- Modern theory of costs.

References:

1. Dominick Salvatore (2003): Microeconomics: Theory and Applications- 4thEdition, Oxford University Press.
2. Robert S Pindyck and Daniel L Rubinfeld (2009): Microeconomics- 8th Edition, Pearson India.
3. Watson and Getz (2004): Price Theory and its Uses- 5thEdition, AITBS Publishers and Distributors.
4. A Koutsoyiannis (1979): Modern Microeconomics- 2ndEdition, Macmillan.
5. G S Madalla and Ellen Miller (1989): Microeconomics: Theory and Applications- Tata McGraw-Hill.
6. Robert Y Awh (1976): Microeconomics: Theory and Applications- John Wiley & Sons.
7. H.R Varian (2009) , Intermediate Microeconomics- A Modern Approach., W W Norton & Co Inc; 8 edition
8. Gregory Mankiw (2006) Principles of Microeconomics,(Paperback) South Western Educational Publishing
9. Jhingan,.M.L., (2017)., Micro Economic Theory, Vrinda Publications (P) Ltd, Delhi

Semester II

Course Category	Core Course 2
Course Title and Code	ECO2B02
No. of Credits	5
No. of Contact Hours	6 Hours per week

MACROECONOMICS I

Preamble: Macroeconomics emerged as a separate discipline following the failure of classical economics to diagnose the reasons of the Great Depression in the 1930s. ‘The General Theory of Employment, Interest and Money’ published by John Maynard Keynes in 1936 was the influential book which laid the foundation of Macroeconomics. Today, principles of macroeconomics help us understand the trends in aggregate variables like national income, employment, price level and investment. It also helps us explore and understand the determinants of short run fluctuations and long run movements in these variables. The course is designed to give a rigorous overview of macroeconomics to the undergraduate students. It will give the necessary ideas and tools to understand the working of an economy at the aggregate level. The course is also expected to give an idea about the need for and the way in which government intervention is required in a modern economy. After completing this course, the student will be able to appreciate the context in which Macroeconomics emerged as a separate discipline. The student will be able to explain how output and employment are determined in classical and Keynesian systems. Student should also be able to explain why actual output will fall short of the productive capacity of the economy

Module I : Introduction to Macroeconomics

Nature, scope and limitations of macroeconomics – Macroeconomic model – Types of variables: Stock and flow, endogenous and exogenous, ex-ante and ex-post – static, comparative static and dynamic – equilibrium and disequilibrium - Circular flow of income and output- national income and its measurement-Production approach, Expenditure approach, Income approach--Real and Nominal GDP.

Module II: Classical macroeconomics

Classical Economy – Say’s Law of Market – Wage-price flexibility – Classical model of output and employment – Classical theory of price level determination – Quantity theory of Money –

Fisher's Equation of Exchange – Cash Balance Approach - Neutrality of Money – Money illusion-Classical dichotomy-Classical response to the Great Depression-Crisis in the discipline of Economics

Module III: Keynesian macroeconomics

Effective demand - Aggregate demand and aggregate supply – Consumption, Investment and Government Expenditure (C+I+G)- -Autonomous Consumption and Induced Consumption-Keynesian Consumption function-investment function-MEC and MEI- Sticky prices and wages-Assumption of fix price-Keynesian Cross model and determination of equilibrium output-Multiplier-Inflationary and Deflationary gaps-Fiscal Policy-Understanding fiscal policy using Keynesian Cross model-tax multiplier-government expenditure multiplier-balanced budget multiplier.

Module IV: Money

Nature of money-types-functions-time preference-interest rate: real and nominal- bond-relationship between bond price and interest rate-Theories of Demand for money-Liquidity Preference theory and Keynesian Liquidity Trap-Friedman's re-statement of Quantity Theory of Money. Theories of Supply of money-Measuring supply of money-High powered money-money multiplier.

Suggested Readings:

1. Edward Shapiro – 'Macro economics' Oxford University press.
2. Gregory Mankiw – 'Macro economics' – 6th Edn. Tata McGraw Hill.
3. Richard T. Froyen – 'Macro economics', Pearson education.
4. Eugene Diulio – Macro economic Theory, Shaum's Outline series. Tata McGraw Hill
5. Errol D'Souza – 'Macro Economics' – Pearson Education 2008.
6. Abhijit Kundu (2009) : Methodology and Perspectives of Social Science – Pearson Education 8
7. Dornbusch, Fischer and Startz-MacroEconomics-Tata McGraw –Hill

Additional References:

1. Lipsey R. and A Chrystal – Economics (11th Edition) Oxford University Press New Delhi.
2. Nicoli Natrass and G. Visakh Varma, 'Macroeconomics simplified: understanding Keynesian and Classical Macroeconomic Systems', Sage India Publications, 2014

COMPLEMENTARY COURSES

SEMESTER I/II

Course Category	Complementary Course
Course Title and Code	INTRODUCTORY ECONOMICS I- ECO1(2) C01
No. of Credits	4
No. of Contact Hours	6 Hours per week

INTRODUCTORY ECONOMICS I

Module I: Basics of Economics

Economics-Definitions- Importance of economics-relation with other social sciences- Basic Problems of an economy - Micro versus Macro

Module II: Demand and supply

Utility, utility function, marginal utility, law of diminishing marginal utility- demand, law of demand. Elasticity of demand-Cost, cost function, opportunity cost, variable cost, fixed cost, total cost, marginal cost, average cost, supply, supply function, supply curve, Elasticity of supply- Equilibrium price, market and its classification

Module IV: Production and distribution

Factors of Production-Production function, types of production function (short run and long run), economies of scale- Distribution-Marginal productivity theory.

Module V: National Income Concepts and Meaning

National Income-Meaning and Significance- Concepts of National Income- Importance of the estimation of national income-difficulties in estimation of national income.

Module VI: Classical Vs Keynesian economics

Assumptions of Classical economists-Say's Law of Market, Full employment, wage-price flexibility -Keynesian revolution-major concepts of Keynes, Post-Keynesian developments (Brief introduction only).

Suggested Readings:

1. Diwedi DN - Macroeconomics Theory and Policy, Tata McGraw Hill Education Pvt. Ltd, New Delhi,
2. Salvator D and EA Diulio – Principals of Economics Schuam’s Outline Series
3. Salvator D – International Economics, Schuam’s Outline Series
4. Gregory Mankiw, Principles of Macroeconomics
5. Sangita Vaishali Kapoor, (2017) Introductory Macro Economics,
6. Gregory Mankiw, Principles of Microeconomics
7. Pradeep kumar Mehta and Meena Singh (2017) , Introductory Microeconomics, Taxmann’s Paperback.
8. Paul Samuelson and William D Nordhaus(2010), Economics, Tata McGraw Hill Education Pvt. Ltd, New Delhi,

SEMESTER III/IV

Course Category	Complementary Course
Course Title and Code	INTRODUCTORY ECONOMICS II- ECO4(3) C01
No. of Credits	4
No. of Contact Hours	6 Hours per week

INTRODUCTORY ECONOMICS II

Module I: Money and Banking

Definitions and functions of money- demand for and supply of money- Fischer's quantity theory of money- inflation and deflation (Only concepts, Types and Causes)- Role and functions of commercial banks and Central Bank-monetary policy and its instruments.

Module II: Public Finance

Meaning and Significance- Public and private finance-Principle of Maximum Social Advantage- Public revenue- public expenditure-public debt- budget- Fiscal Policy-FRBM Act- Finance Commission- Terms of References and Recommendations of 14th and 15th Finance Commission.

Module III: Trade

Internal and External Trade- balance of trade and balance of payments-foreign exchange rate, devaluation- revaluation-depreciation-appreciation.

Module IV: India as a Developing Economy

Indian economy- growth and development under different policy regimes-Demographic trends and issues-education- health and malnutrition - Trends and policies on poverty; inequality and unemployment - Role of NITI Aayog.

Suggested Readings:

1. Diwedi DN - Macroeconomics Theory and Policy| Tata Magrawhill
2. Salvator D and EA Diulio – Principals of Economics Schuam’s Outline Series
3. Salvator D – International Economics, Schuam’s Outline Series
4. Gregory Mankiw, Principles of Macroeconomics
5. Sangita Vaishali Kapoor, (2017) Introductory Macro Economics,
6. Datt and Ashwani Mahajan (2018), Indian Economy, S. Chand, New Delhi
7. Uma Kapila, (2017), Indian Economy-Performance and Policies,
8. Manoranjan Sharma (2017), Leading Issues in Indian Economy
9. R. K. Lekhi and Joginder Singh, (2016) Public Finance, Kalyani Publishers
10. H.L. Bhatia, Public Finance (29th Edition), Vikas Publishing House, New Delhi

Co-operation

SEMESTER I/II

Course Category	Complementary Course
Course Title and Code	<i>Co-operation I</i> , ECO1(2) C02
No. of Credits	4
No. of Contact Hours	6 Hours per week

Co-operation - I

Module 1: Principles and Problems of Co-operation:

Meaning and Significance of Co-operation; Co-operation and other business enterprises- Problems of Co-operation-Role of Co-operatives in a dynamic economy- Impact of demonetization on Co-operative banks-Vaidyanathan Committee Report

Module 2: Practice of Co-operation in selected Foreign Countries:

Co-operative Movements in Germany, England, Denmark, Ireland, Japan, Italy, France- International Co-operative Alliance.

Module 3: Practice of Co-operation in India:

Origin and Development of Co-operative Movements in India- Co-operative Legislations and Administrations-Recent developments.

Module 4: Co-operative Banking:

Principles and Policy-Rural Primary Agricultural Credit Societies, Central Co-operative Banks, State Co-operative Banks, Co-operative Agricultural and Rural Development Banks-Refinancing of Co-operative Banks- Role of NABARD and other agencies.

Suggested Readings:

1. T.N. Hajila, Principles, Problems and Practices of Co-operation (Shivalal Agarwala & Co.,Agra).
2. E.S. Bogardus, Principles of Co-operation.
3. K.R. Kulkarni, Theory & Practice of Co-operation in India and Abroad.
4. G. Druhain, The Co-operative Society as a Form of Enterprise.
5. H. Calvert, Law & Principles of Co-operation.
6. C.R. Ray, Co-operation at Home &Abroad.
7. R. Philips, Economic Nature of Co-operative Association.

Co-operation

SEMESTER IV/III

Course Category	Complementary Course
Course Title and Code	<i>Co-operation II</i>: ECO4(3)C02
No. of Credits	4
No. of Contact Hours	6 Hours per week

Co-operation II

Module 1: Agricultural Co-operatives:

Co-operative production-Co-operative Vs Collective Farming- Co-operative Supply (Service Co-operatives)- Co-operative Marketing- Co-operative Processing- Co-operative Storage and Warehousing.

Module 2: Non-Agricultural Co-operatives:

Consumers' Co-operatives- Co-operative Housing- Urban Co-operative Credit Societies- Industrial Co-operatives-Workers' Co-operative-Dairy Co-operatives.

Module 3: Human Resource Development in Co-operatives:

Nature and Significance of Human Resources Development in Co-operatives-Co operative Education and Training.

Module4: Role of Co-operatives in a Liberalised Financial situation.

History & Role of Co-operative Movement in Kerala - Co-operatives and SHGs – Kudumbasree in Kerala, co operatives and decentralization

Suggested Readings:

1. T.N. Hajila, Principles, Problems and Practices of Co-operation (Shivalal Agarwala & Co.,Agra).
2. E.S. Bogardus, Principles of Co-operation.
3. K.R. Kulkarni, Theory & Practice of Co-operation in India and Abroad.
4. G. Druhain, The Co-operative Society as a Form of Enterprise.
5. H. Calvert, Law & Principles of Co-operation.
6. C.R. Ray, Co-operation at Home & Abroad.
7. R. Philips, Economic Nature of Co-operative Association.

Banking **SEMESTER I/II**

Course Category	Complementary Course
Course Title and Code	Banking-I: , ECO1(2) C03
No. of Credits	4
No. of Contact Hours	6 Hours per week

Course Title and Code: Banking-I

Preamble: Banking has a long history in the world. It has undergone profound changes in recent years especially after the far-reaching banking sector reforms in India and elsewhere. The present course is designed to acquaint the students with the working of banks and to familiarize them with the basic principles and concepts which are often used in banking literature.

Module 1: Origin of Banking – Role and Importance of banks in Economic Development -Brief history of commercial banking in India – Structure of commercial banks – Functions – Credit creation, New banking entities in India – Payment banks and Small Finance Banks.

Module 2: Commercial Banking-Branch Banking Vs Unit Banking-Group Banking- Chain Banking, Mixed Banking- Balance sheet- Rules of Management of funds-Assets and Liabilities-Bank Failures-Deposit Insurance- Nationalisation of Banks in India - An overview of Changes after Nationalization- Merger of banks and their problems.

Module 3: Negotiable Instruments: Types – cheque, Crossing, Dishonouring of cheque, Draft, Bill of Exchange, promissory note. Money market. Money market instruments: Money at call and short notice, Inter-bank term money, Commercial paper, Certificate of Deposit, Treasury Bill.

Module 4: Electronic banking-Debit card, Credit card, Online banking, Mobile banking, UPI- Electronic Fund Transfer: NEFT, RTGS, IMPS.-Digital wallet-Core Banking, SWIFT, Cheque Truncation System- Electronic Clearing services

Suggested Readings:

1. R.S. Sayers, Modern Banking. – Macmillan
2. M.D. Decock, CentralBanking.
3. S.K. Basu, Banking in India.
4. Milnes Holdern, Studies in PracticalBanking.
5. I.C. Dhingra, Indian Economy. Sulthan Chand andsons.
6. Rangarajan C. (1998), Indian Economy: Essays on Money and Finance, UBS Publishers and Distributors, New Delhi.
7. M.R. Baye, D.W. Jansen (1996), Money, Banking and Financial Markets, AITBS (Indian ed.)

SEMESTER IV/III

Course Category	Complementary Course
Course Title and Code	Banking-II: ECO4(3)C03
No. of Credits	4
No. of Contact Hours	6 Hours per week

BANKING II

Module 1: Rural banking in India: Agricultural banking, Co-operative banks, Three tier structure, Regional Rural banks, Local Area banks, NABARD, Role and Functions of NABARD

Module 2: Banking Sector Reforms in India : Recommendations of Narasimham committee I & II, BIS, Basel Committee, Basel 1, 2 & 3 Accords, Capital adequacy norms, Non-Performing Asset, Prudential norms, Income recognition, Asset Classification and Provisioning.

Module 3: Central Bank – meaning – Functions of Central Bank with reference to RBI – Rules of note issue system in India -Monetary policy of RBI – Bank rate, CRR, SLR & NLR, Open Market operations, LAF, Repo, Reverse repo and MSF rate. MCLR.

Module 4: Development banks – Need for development banks and their role – types of development banks and their present conditions in India; IFCI, SFCs, IDBI, SIDBI, Mudra Bank.

Suggested Readings:

1. R.S. Sayers, Modern Banking. – Macmillan
2. M.D. Decock, CentralBanking.
3. S.K. Basu, Banking in India.
4. Milnes Holdern, Studies in PracticalBanking.
5. I.C. Dhingra, Indian Economy. Sulthan Chand andsons.

Mathematical Tools for Economics

SEMESTER I/II

Course Category	Complementary Course
Course Title and Code	Mathematical Tools for Economics-I, ECO1(2)C04
No. of Credits	4
No. of Contact Hours	6 Hours per week

Preamble: The objective of the complimentary courses, viz., “Mathematical Tools for Economics” is to familiarize the students about the mathematical tools and techniques that are commonly used in economics. The purpose of the course, then, is to present mathematical skills and concepts, and to apply them to ideas that are important to the economics students. It is expected that this course will open up the much needed mathematical rigour in understanding economic theory and empirical analysis. It is also expected that this course will substantially contribute to improving the problem solving skills, numerical aptitude of students.

Module 1: Introductory Concepts

Equations- Linear and nonlinear equations- Variables and parameters - Quadratic equations - solving quadratic equation -Cases where a quadratic expression cannot be factorized - The case of the perfect square - Polynomial - Relation and Function.

Module 2: Theory of Sets

Kinds of sets- Operations of sets-Venn Diagrams-Cartesian Products- Laws of set operations

Module 3: Graphs and Economic Applications

Concept of slope and Intercept-Equations of Straight Line-Point of intersection of two lines- Graphical solution of simultaneous linear equations-Application of straight lines in Economics: Demand and supply analysis, determination of equilibrium price and quantity

Module 4: Matrices

Matrices: Meaning and types of matrices- Operation of Matrices: Addition, subtraction, multiplication (3x3)- Determinants, Properties of determinants (without proof). Rank of matrix, trace of matrix, inverse of a matrix, solution to linear equations - Cramer’s rule - Inverse method.

Module 5: Special Determinants and Matrices in Economics

The Jacobian-the Hessian- the discriminant- Higher order Hessian

Suggested Readings

1. Allen, R.G.D (1974) Mathematical Analysis for Economics, McMillan Press, London. (reprint edition)
2. Chiang, A.C., Fundamental Methods of Mathematical Economics, McGraw Hill, New Delhi (recent edition).
3. Jeffrey Baldani et al. (2009), An Introduction to Mathematical Economics, Cengage Learning, Delhi.
4. C.S. Aggrawal and R.C. Joshi, Mathematics for students of economics, New Academic Publishing Co.Jalandhar.
5. Taro Yamane, Mathematics for Economist, Prentice- Hall of India.
6. Geoff Renshaw, Maths for economics, 2nd edition, Oxford University Press.
7. Edward T. Dowling, Introduction to Mathematical Economics (3rd Edition), Schaum's Outline Series, McGRAW-HILL.

Additional References:

1. Taroyamane, Mathematics for economists: an elementary survey, Prentice Hall
2. John Livernois, et.al., Mathematics for Economics, PHI Learning (2012)
3. Teresa Bradley, Paul Patton Essential, Mathematics for Economics and Business, 2nd Edition, Wiley India Pvt. Ltd (2006)
4. Bhardwaj, Mathematics for Economics and Business, 2nd Edition, Excel Books
5. Olive, Maths: A Self Study Guide, 2nd Edition, Cambridge University Press India Pvt. Ltd
6. Carl P. Somon, Lawrence Blume, Mathematics for Economists, 1st Edition, Viva Books(2010)
7. David M. Levine et.al., Quantitative Techniques for Management, 1/e, Pearson Education,

Note to faculty / examiner: 1. This course is a complementary of B.A. Economics programme. The students of this course may not have studied mathematics at higher secondary level. Hence questions may be confined to intermediary level. 2. Derivations and proofs not required. 3. For logarithms, trigonometric functions and natural logarithm are to be excluded. 4. For differentiation / integration trigonometric functions and logarithm are to be excluded.

SEMESTER IV/III

Course Category	Complementary Course
Course Title and Code	Mathematical Tools for Economics-II, ECO4(3)C04
No. of Credits	4
No. of Contact Hours	6 Hours per week

Mathematical Tools for Economics – II

Module 1: The Derivative and Rules of Differentiation:

Limits-Continuity-The Derivative-Differentiability and Continuity-Derivative Notation-Rules of Differentiation-Higher-Order Derivatives- Implicit Differentiation

Module 2 . Uses of Derivative in Mathematics and Economics:

Total cost – average cost – marginal cost – relationship between MC and AC -Marginal utility, marginal revenue and marginal cost -Increasing and Decreasing Functions- Concavity and Convexity-Relative Extreme-Inflection Points-Curve Sketching-Optimization of Functions.

Module 3: Calculus and Multivariable Functions:

Functions of Several Variables and Partial Derivatives - Rules of Partial Differentiation- Second-Order Partial Derivatives - Optimization of Multivariable Functions - Constrained Optimization with Lagrange Multipliers - Significance of the Lagrange Multiplier – Differentials - Concept of Total and Partial Differentials - Concept of Total Derivatives

Module 4 : Application of Calculus of Multivariable Functions in Economics.

Marginal concepts – marginal productivity - Elasticity concepts – price/cross/income elasticity of demand - Optimisation of multivariable functions in economics – constrained optimisation (Hessian determinant not required)-Homogenous production function and returns to scale.

Module 5: Integration

Basic concept of Integration-Rules of Integration-Initial condition- boundary condition-The Definite Integral - Integration by Substitution- integration by Parts--Area under curve. - Area between curves -Economic Applications

Suggested Readings

1. Allen, R.G.D (1974) Mathematical Analysis for Economics, McMillan Press, London. (reprint edition)
2. Chiang, A.C., Fundamental Methods of Mathematical Economics, McGraw Hill, New Delhi (recent edition).
3. Jeffrey Baldani et al. (2009), An Introduction to Mathematical Economics, Cengage Learning, Delhi.
4. C.S. Aggrawal and R.C. Joshi, Mathematics for students of economics, New Academic Publishing Co. Jalandhar.
5. Taro Yamane, Mathematics for Economist, Prentice- Hall of India.

8. Geoff Renshaw, Maths for economics, 2nd edition, Oxford University Press.
9. Edward T. Dowling, Introduction to Mathematical Economics (3rd Edition), Schaum's Outline Series, McGRAW-HILL.

Additional References

8. Taroyamane, Mathematics for economists: an elementary survey, Prentice Hall
9. John Livernois, et.al., Mathematics for Economics, PHI Learning (2012)
10. Teresa Bradley, Paul Patton Essential, Mathematics for Economics and Business, 2nd Edition, Wiley India Pvt. Ltd (2006)
11. Bhardwaj, Mathematics for Economics and Business, 2nd Edition, Excel Books
12. Olive, Maths: A Self Study Guide, 2nd Edition, Cambridge University Press India Pvt Ltd
13. Carl P. Somon, Lawrence Blume, Mathematics for Economists, 1st Edition, Viva Books (2010)
14. David M. Levine et al., Quantitative Techniques for Management, 1/e, Pearson Education,

Note to faculty / examiner: 1. This course is complementary of B.A. Economics course. The students of this course may not have studied mathematics at higher secondary level. Hence questions may be confined to intermediary level. 2. Derivations and proofs not required. 3. For logarithms, trigonometric functions and natural logarithm are to be excluded. 4. For differentiation / integration trigonometric functions and logarithm are to be excluded.

MODEL QUESTION PAPER (CORE COURSE)

First Semester BA Degree Examination, November 2019

(CBCSS-UG)

Branch: Economics

Core Course: ECO1B01- Microeconomics I

Time: 2.30 Hours

Max.:80 Marks

Section A

Short Answer Questions. Maximum marks in this section is 25. Students can attempt all questions. Each question carries a maximum of 2 marks.

1. Nature and Scope of Economics
2. Cross elasticity
3. Cobb-Douglas Production Function
4. Properties of iso-quants
5. Engel curve
6. Factors affecting price elasticity
7. Consumer surplus
8. Marginal rate of transformation
9. Price consumption curve
10. Giffen paradox
11. Law of substitution
12. Positive and normative economics
13. Explain ridge lines
14. Production possibility curve
15. Exceptions to the law of demand

Section B

Short Essay/paragraph Questions. Maximum marks in this section is 35. Students can attempt all questions. Each question carries a maximum of 5 marks.

16. Properties of indifference curves
17. Explain consumer equilibrium under cardinal utility theory
18. Bring out the relationship between average and marginal costs.
19. Explain the theory of equi-marginal utility
20. Explain the law of variable proportions
21. Distinguish between 'strong ordering' and 'weak ordering'.
22. Elucidate Hicksian method of measuring consumer's surplus.
23. Explain the various types of long run costs curves

Section C

Long Essay Questions. Answer any two questions. Each question carries a maximum of 10 marks.

24. Examine the decomposition of price effect into income effect and substitution effect using Hicksian and Slutsky's methods
25. Describe the short run and long run cost curves with suitable diagrams
26. Explain the law of diminishing returns with the help of iso-quants.
27. Explain the equilibrium of the consumer under revealed preference hypothesis.

Second Semester BA Degree Examination, May 2020

(CBCSS-UG)

Branch: Economics

Core Course: ECO2B02- Macroeconomics I

Time: 2.30 Hours

Max.:80 Marks

Section A

Short Answer Questions. Maximum marks in this section is 25. Students can attempt all questions.

Each question carries a maximum of 2 marks.

28. What is Macroeconomics?
29. Illustrate a simple model of circular flow of income
30. What is meant by classical dichotomy?
31. What is money illusion?
32. What do you mean by inflationary gap?
33. Pick the stock variables from the following: GDP, Money supply, Saving, Capital, Investment, Wealth, debt.
34. What is MPC?
35. What is value of multiplier if $MPC = 0.75$
36. What is balanced budget multiplier?
37. What is liquidity trap?
38. What determines the speculative demand for money?
39. Why does bond price fall when interest rate rise?
40. What is real interest rate?
41. What is fiscal policy?
42. Why are macroeconomic variables important for common people?

Section B

**Short Essay/Paragraph Questions. Maximum marks in this section is 35.
Students can attempt all questions.**

Each question carries a maximum of 5 marks.

43. Explain Say's law of markets.
44. Explain Quantity theory of money using Fisher's Equation of exchange.
45. Distinguish between MEC and MEI.
46. Explain absolute income hypothesis.
47. Given the equations $Y = C + I_0 + G_0$ and $C = a + bY$, which are the endogenous and exogenous variables? Explain.
48. Explain liquidity preference theory.
49. Explain how underemployment equilibrium occurs in Keynesian system.
50. Illustrate why bond price fall when interest rate rise.

Section C

Long Essay Questions. Answer any two questions. Each question carries a maximum of 10 marks.

51. Discuss how income and employment are determined in the Classical system.
52. Explain Keynesian response to the Great Depression using Keynesian cross model.
53. Discuss the different methods of measuring national income.
54. Explain how high-powered money determines money supply.

MODEL QUESTION PAPER (COMPLEMENTARY COURSE)

First Semester BA Degree Examination, November 2019

(CBCSS-UG)

Branch: Economics

Complementary Course: ECO1(2)C01- Introductory Economics I

Time: 2.30 Hours

Max.:80 Marks

Section A

Short Answer Questions. Maximum marks in this section is 25. Students can attempt all questions.

Each question carries a maximum of 2 marks.

1. Scarcity definition of Economics
2. Production possibility curve
3. Explain supply function
4. Factors of production
5. Distinguish between GDP and GNP
6. Say's Law of Market
7. Giffen paradox
8. Assumptions of Classical economic model
9. Production function
10. Equilibrium price
11. Internal and external economies of production
12. Keynesian psychological law of consumption
13. Functional distribution
14. Division of labour
15. Utility function

Section B

**Short Essay/Paragraph Questions. Maximum marks in this section is 35.
Students can attempt all questions.**

Each question carries a maximum of 5 marks.

- 16.Explain the law of diminishing marginal utility
- 17.Explain the law of variable proportion
- 18.Distinguish between cardinal and ordinal utility
- 19.Explain the income elasticity of demand
- 20.What are the factors affecting shifts in supply curve
- 21.Explain scarcity and choice as the central economic problems
- 22.What are the different classifications of markets
- 23.Discuss the difficulties in measuring National Income in developing countries

Section C

Long Essay Questions. Answer any two questions. Each question carries a maximum of 10 marks.

- 24.Discuss how income and employment are determined in the Classical system.
- 25.Critically analyse the marginal productivity theory of distribution
- 26.Examine the basic problems of an economy. How it is solved in different economic systems.
- 27.Explain the different types of price elasticity of demand