



ଓଡ଼ିଶା ରାଜ୍ୟ ମୁକ୍ତ ବିଶ୍ୱବିଦ୍ୟାଳୟ, ସମ୍ବଲପୁର, ଓଡ଼ିଶା  
Odisha State Open University, Sambalpur, Odisha  
Established by an Act of Government of Odisha.

# ASSIGNMENTS

Bachelor of Arts (Honours) in Economics

Course Code: BEC-03, BEC-04

Semester-2

SESSION: 2019-20

## SUBMISSION DATES FOR ASSIGNMENTS

S.N	Course Code	Course Title	Assignment Number	Last Date of Submission
1	BEC-03	Introductory Macroeconomics	I	Sunday, 24 <sup>th</sup> May, 2020
2			II	Sunday, 24 <sup>th</sup> May, 2020
	BEC-04	Mathematical Methods For Economics-II	I	Sunday, 24 <sup>th</sup> May, 2020
			II	Sunday, 24 <sup>th</sup> May, 2020

Please read the instructions carefully before attempting assignment questions.

## INSTRUCTIONS FOR DOING ASSIGNMENTS

Dear Learner,

You are required to submit your assignment response within the stipulated time in order to become eligible to appear in the term-end examination. The assignments will be evaluated by the counsellors at your Study Centre. Please submit your assignment response to the Coordinator of your Study Center. For a 4 credit course, there is one Assignment and for 6/8 credit course, there must be minimum 02(two) Assignment.

### Purpose of Assignments:

1. Assignments are part of the continuous evaluation process in Open and Distance Learning (ODL) system. Due weightage is given to the marks/grades you obtain in assignments. This will help you for better performance in the term-end examination. If you secure good grades/marks in assignments, your overall performance will improve.
2. Assignments are also a part of the teaching-learning process in the ODL system. Your assignment, after evaluation, will be returned back to you with specific and general comments by the evaluator. This will help you to know your strength as well as your weakness. Thus, it will establish two-way communication between learner and evaluator.

### How to Write Assignments:

Please read the instructions for writing the response of an assignment before you start writing your answer.

1. Write your name, programme code, the course title, enrolment no. and study centre name with code in the top sheet of the assignment answer booklet. The format is given below.

PROGRAMME TITLE: \_\_\_\_\_

ENROLMENT No.: \_\_\_\_\_ NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

COURSE CODE: \_\_\_\_\_ COURSE TITLE: \_\_\_\_\_

ASSIGNMENT CODE: \_\_\_\_\_ STUDY CENTRE: \_\_\_\_\_

DATE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

2. Before attempting the assignments, please go through the course materials carefully, understand the same and write answers in your own language and style.
3. Write the answers in your own handwriting. Give sufficient margin in the left side of each page so that the evaluator will give comments on each paragraph/page.
4. Your handwriting should be neat and readable.

### Weightage for each Assignments:

1. Each Theory Assignment will carry 25% weightage and term-end examination will carry 75% weightage.
2. Each assignment will be of 100 marks. But it will carry 25% weightage.
3. You have to score minimum pass mark i.e. 40% or P (Pass) Grade in 10-point scale for each assignment. In case you do not submit the assignment or get fail mark in the assignment you have to re-submit in the next year.

# ASSIGNMENTS-I

## Introductory Macroeconomics (BAEC-III)

**(Theory)**

**Full Mark – 100**

*(Answer all the questions, which is Compulsory)*

### Group- 'A'

**Q. No. 1 Answer within one word or one sentence each**

**Marks: 1 × 10= 10**

- a) Define utility.
- b) What do you mean by “necessities”?
- c) Define the term “Positive economics”.
- d) Which method of calculating “National Income” is known as Value added method?
- e) What do you mean by open economy?
- f) In which year CSO published the first issue of white paper on national Income?
- g) State the formula for Net Economic Welfare (NEW).
- h) What is the aim of national income accounting?
- i) What is the full form of “EDP”?
- j) Define transfer income.

### Group 'B'

**Q. No 2. Short answer-type Questions (Word Limit: 50 Words)      Marks:2X10 = 20**

- a) Distinguish between barter exchange and money exchange.
- b) What is the difference between inductive reasoning and deductive reasoning?
- c) Distinguish between Money Flow and real Flow.
- d) Calculate NDP at factor cost from NNP at Factor cost.
- e) Distinguish between net factor Income from abroad and net exports.
- f) What are the categorisation of construction activity?
- g) Why GDP is considered a poor measure of economic welfare?
- h) How closing stock is calculated?
- i) Mention any two objectives of SEEA.
- j) Distinguish between economic growth and economic development.

### Group 'C'

**Q. No 3. Medium answer-type Questions (Word Limit:75 Words)      Marks: 3X10 = 30**

- a) What are the three limitations that economic laws suffer?
- b) State Engel's law.
- c) Distinguish between Static economics and Dynamic economics.
- d) How personal income is different from personal disposable income?
- e) State the relation between NNDY and PDY.
- f) What are the main conceptual difficulties faced in computation of national income in India?
- g) Briefly explain the concept of Equal –Weights Index of social welfare.
- h) What are the three categorisation of national income accounts?
- i) Briefly explain the progress on environmental accounting in India.
- j) Mention the assets for which consumption of fixed capital is estimated

**Group 'D'**

**Q. No 4. Long answer-type Questions (Word Limit: 500 Words)**

**Marks: 4 X 10 = 40**

- a) Explain the circular flow of income in an open economy.
- b) Discuss the Expenditure Method of estimating national Income in India.
- c) What are the major flaws in current system of national income accounting and also suggests the measures undertaken to overcome the weaknesses in the conventional economic accounts?
- d) Identify the sectors in which production method is employed to find out their contribution to national income of India. Explain the methods employed in registered manufacturing sector and construction sector to calculate national income.

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**NOTE: (For Group-A, Group-B and Group-C)**

(it can be a single Question or can have two parts with appropriate mark distribution)

## ASSIGNMENTS-II

### Introductory Macroeconomics (BAEC-3)

**(Theory)**

**Full Mark – 100**

*(Answer all the questions, which is Compulsory)*

#### GROUP- 'A'

**Q. No. 1 Very Short answer-type Questions (Word Limit: 50 Words)**

**Marks: 1 X10 = 10**

- a) Define barter system.
- b) State Fisher's equation of exchange.
- c) What is an index number?
- d) What do you mean by stagflation?
- e) What is subsistence level of consumption?
- f) What IS curve shows?
- g) What is AMR?
- h) What do you mean by deferred payments?
- i) Which policy is more appropriate for flatter portion of LM curve, given the IS curve?
- j) What do you mean by indeterminate exchange rate?

#### Group 'B'

**Q. No 2. Short answer-type Questions (Word Limit: 100 Words)**

**Marks:2 X 10= 20**

- a) State any two functions of money.
- b) Distinguish between money and near money.
- c) What do you mean by suppressed inflation?
- d) List out any two causes of deflation.
- e) What is equilibrium?
- f) State the necessary condition for equilibrium.
- g) Explain "Crowding Out Effect".
- h) State Say's law of market.
- i) What are the constituents of goods market?
- j) Define MPC.

#### Group 'C'

**Q. No 3. Medium answer-type Questions (Word Limit: 200 Words)**

**Marks: 3 X 10= 40**

- a) Mention the factors that led to the innovation of money.
- b) What are the main assumptions of Quantity Theory of money?
- c) Briefly explain Phillips curve.
- d) What are the anti-deflationary measures undertaken to control deflation?
- e) What is the significance of 45° line?
- f) Distinguish between induced investment and autonomous investment.
- g) What will be the shape of LM curve if speculative demand for money is insensitive to interest rate?

- h)** Distinguish between contractionary monetary policy and fiscal policy.
- i)** Distinguish between nominal cash balance and real cash balance.
- j)** What are the components of  $M_4$ ?

**Group 'D'**

**Q. No 4. Long answer-type Questions (Word Limit: 300 Words)**

**Marks: 10 X 4 = 40**

- a)** Discuss the Keynesian theory of demand for money.
- b)** What are the various causes of inflation? Explain diagrammatically.
- c)** Discuss the concept of "Balance Budget Multiplier".
- d)** Explain the classical approach of determination of income and employment with the help of IS-LM technique.

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**NOTE: (For Group-A, Group-B and Group-C)**

(it can be a single Question or can have two parts with appropriate mark distribution)

# ASSIGNMENTS-1

## Mathematical Methods for Economics (BAEC-4)

**(Theory)**

**Full Mark – 100**

*(Answer all the questions, which is Compulsory)*

### GROUP- 'A'

**Q. No. 1 Answer within one word or one sentence each**

**Marks: 1X 10 =10**

- a) What is Production Matrix?
- b) What is closed input-output model?
- c) Define final demand.
- d) What is the meaning of Demand Matrix?
- e) What is Static input-output model?
- f) What is the condition of convexity?
- g) Define Hessian Determinant.
- h) What is input co-efficient?
- i) State the condition of Principal Minor.
- j) What is open dynamic model?

### GROUP- 'B'

**Q. No 2. Short answer-type Questions (Word Limit: 50 Words)**

**Marks: 2×10 = 20**

- a) Diminishing Marginal utility represented through Second Order derivative. Explain.
- b) State the L'Hopital's Rule.
- c) Define input-output in the view of J.R.Hicks.
- d) What happens to the value of function when  $f'(X) > 0$ ?
- e) How do you know about the slope of the curve through second order derivative?
- f) Find out the derivative of;  
 $y = 2x - 5$
- g) What is open input-output model?
- h) What is Leontief Matrix?
- i) State the Taylor's formula.
- j) What is second order test of relative extremum?

### GROUP- 'C'

**Q. No 3. Medium answer-type Questions (Word Limit: 200 Words)**

**Marks: 3 × 10 = 30**

- a) Find out the  $dy/dx$  of  
 $y = (8x^2 - 2x)^5$
- b) Calculate the  $f'(x)$  of  $y = x^4 - 3x - 4$
- c) Discuss the assumptions of input-output analysis.
- d) State the closed input-output model.
- e) Give an example of  $n \times n$  input-output matrix.
- f) Give a brief idea of Leontief's work and publication of input-output model.
- g) What is the criteria for concavity of curve?
- h) Find the second derivative of

$$1/3x^3 - 23x^2 + 5$$

- i) State and explain about the Hawkin-Simon's condition of input-output model.
- j) What is Jacobian Matrix?

**GROUP- 'D'**

**Q. No 4. Long answer-type Questions (Word Limit: 500 Words)                      Marks: 4 x 10 = 40**

- a) Consider a closed three sector economy with the industries  $S_1$ ,  $S_2$ , and  $S_3$  corresponding to cotton, thread and cloth respectively. When the input-output table is given by S. Then the input-output matrix and the demand matrix for the economy is given by:-

$$A = \begin{bmatrix} 0.1 & 0.1 & 0.1 \\ 0.4 & 0.2 & 0.2 \\ 0.2 & 0.3 & 0.5 \end{bmatrix}, \quad D = \begin{bmatrix} 92 \\ 69 \\ 115 \end{bmatrix}$$

Find out the requirement to fulfil the inter industrial and final demand.

- b) Discuss the practical application of the input-output analysis.
- c) Find out  $d^3y/dx^3$  of  
 $y = 9x^3 - 12x^2$
- d) Find out the method to get the higher order Hessian determinant.

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**NOTE: (For Group-A, Group-B and Group-C)**

(It can be a single Question or can have two parts with appropriate mark distribution)

# ASSIGNMENTS-II

## Mathematical Methods for Economics (BAEC-4)

**(Theory)**

**Full Mark – 100**  
*(Answer all the questions, which is Compulsory)*

### GROUP- 'A'

**Q. No. 1 Answer within one word or one sentence each**

**Marks: 1X 10 =10**

- a) State the formula for integration of  $x^{-1}$ .
- b) What are indefinite integrals?
- c) What is Partial differentiation?
- d) What is the demotion of Lagrange Multiplier?
- e) What is the formulae to find out  $MRS_{x_1x_2}$ ?
- f) Define Constrained Optimization.
- g) Derive-  $y= 2x-5$
- h) Denote the utility function.
- i) What is Profit maximisation?
- j) What is anti-differentiation?

### GROUP- 'B'

**Q. No 2. Short answer-type Questions (Word Limit: 50 Words)**

**Marks:2×10 = 20**

- a) What are definite integrals?
- b) What is optimization of two variable?
- c) What is Integration of power function?
- d) Write down the Profit function.
- e) What is equality constrain?
- f) State the condition for MRS equilibrium.
- g) State the maximization function with langrage multiplier.
- h) Write down the border Hessian matrix.
- i) State the border Hessian matrix for minima.
- j) Diagrammatically show the optimum consumption function.

### GROUP- 'C'

**Q. No 3. Medium answer-type Questions (Word Limit: 200 Words)**

**Marks: 3 × 10= 30**

- a) What are the three methods of Integration?
- b) Discuss the maxima condition.
- c) Find out the MC if  
$$TC= 9Q^3+3Q^2+300$$
- d) What is the concept of LOCAL MAXIMA?
- e) Explain the concept of integration by substitution with example.
- f) Write down the properties of definite integrals.
- g) State the condition of Minima.
- h) Explain cross partial differentiation with example.
- i) What is optimisation?
- j) Explain Profit maximisation.

**GROUP- 'D'**

**Q. No 4. Long answer-type Questions (Word Limit: 500 Words)**

**Marks: 10 × 4 = 40**

a) Maximise the Output –

Producer have 800 to spend on L&K

Price of K=3, L=6

$$Q=K^{0.3}L^{0.6}$$

b) Maximise Profit for-

$$TC= 6Q^2+ 3Q+400$$

$$TR= 800Q$$

c) Geometric representation of indefinite integrals.

d) Explain optimization under more than two variable.

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**NOTE: (For Group-A, Group-B and Group-C)**

(It can be a single Question or can have two parts with appropriate mark distribution)