PG Odd Semester (CBCS) Exam., December—2018

ECONOMICS

(3rd Semester)

Course No. : ECOCC–303

(For Group—E Students)

(Computer Application in Economics)

(Practical)

Full Marks : 25
Pass Marks : 10

Time : 2 hours

The figures in the margin indicate full marks for the questions

Answer **three** questions, selecting **one** from each Section

SECTION—1

1. *(a)* Open the file named 'GDP.xls' provided on your desktop, and calculate the following :

(i) Population

(ii) Annual growth rate of GDP

(iii) Annual growth rate of population

(iv) Annual growth rate of per capita GDP

Save your results in the form of a table in MS-Word as '1a'. 5

(b) Write down the equations of demand function, supply function and equilibrium condition using MS-Word. Also show graphically the equilibrium of the market using MS-Word. Save your result as '1b'. 5

2. Using 'SPSS.sax' data file (provided on your desktop), solve the following problems : 2+4+4=10

(a) Write a note (in your answer-script) on the types of variable available in the data file.

(b) Compute a new variable called 'carmaincat' from the existing variable named 'carmain' with the following category :

Below 10, 11 to 25, 26 to 39, above 39

Draw a frequency distribution of the new variable 'carmaincat'. Save your result in MS-Word as '2b'.

(c) Draw a bar diagram to show the relationship between 'primary vehicle price category' and 'car maintenance expenditure' only for non-Muslim individuals. Save your diagram in MS-Word as '2c'.

SECTION—2

3. *(a)* Draw a suitable diagram in MS-Word to show the equilibrium of a firm under perfect competition. Save the diagram as '3a'. 5

(b) Prepare an MS-Word document of 4 pages. Write headers and footers as per the following instructions :

Odd pages header : Computer Application in Economics

Odd pages footer : Assam University

Even pages header : Department of Economics

Even pages footer : Silchar Campus

Save the prepared file as '3b'. 5

4. Using 'regression.gdt' data file (provided on the desktop), solve the following problems : 2+4+4=10

(a) Estimate the parameters of the model given below and save the output as '4a' :

$$E_t \quad _0 \quad _1 T_t \quad e_t$$

where

E Government expenditure

T Tax revenue

e Error term

(b) Interpret the estimated parameters of the model in your answer-script.

(c) Conduct appropriate test to examine if the parameters have a structural break in the year 1991. Write your finding in the answer-script.

SECTION—3

5. Open the file named 'student.xls' saved on your desktop. Calculate summary statistics to measure the relative performance and the consistency of each student in the examination. Save your result in the form of a table in MS-Word as '5'. 5

6. Solve the following problem by simplex method using linear program solver :

Maximize $Z \quad 4x \quad 9y$

subject to

$5x \quad 3y \quad 30$

$7x \quad 2y \quad 28$

$x, y \quad 0$

Save your output in MS-Word as '6'. 5

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