

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

ECONOMICS

(3rd Semester)

Course No. : ECOCC-303

(For Group—D 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. Using 'SPSS.sav' 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 '1b'.

(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 result in MS-Word as '1c'.

2. (a) Open the file named 'GDP.xls'. 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 '2a'. 5

(b) Write down the equations of demand function, supply function and equilibrium condition using MS-Word. Show the equilibrium of the market graphically using MS-Word. Save your result as '2b'. 2+3=5

(3)

SECTION—2

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

- (a) Estimate the parameters of the following model and save the output in MS-Word as '3a' :

$$E_t = \alpha_0 + \alpha_1 T_t + e_t$$

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 shift in the year 1991. Write your finding in the answer-script.
4. (a) Draw a suitable diagram in MS-Word to show the equilibrium of a firm under perfect competition. Save the diagram as '4a'. 5
- (b) Prepare an MS-Word document of 4 pages. Write headers and footers as per the following instructions :

Odd pages header : Computer Applications in Economics

(4)

Even pages header : Department of Economics

Odd pages footer : Assam University

Even pages footer : Silchar Campus

Save the prepared file as '4b'. 5

SECTION—3

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

$$\text{Maximize } Z = 4x + 9y$$

subject to

$$5x + 3y = 30$$

$$7x + 2y = 28$$

$$x, y \geq 0$$

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

6. 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 '6'. 5
