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# THIRD SEMESTER M.A. DEGREE EXAMINATION, DECEMBER 2013 

## (CUCSS)

Applied Economics
COMPUTER APPLICATION IN ECONOMIC ANALYSIS
Time : Three Hours
Maximum : 36 Weightage

## Part A

Answer all questions. Each bunch of four question carries weightage 1.
A. Multiple Choice

1 The brain of any computer system is :
(a) RAM.
(b) Hard Disk.
(c) CPU.
(d) External Storage Devices.

2 Microsoft Excel is a powerful :
(a) Word processing package.
(b) Spreadsheet package.
(c) Communication software package.
(d) DBMS package.

3 In MS Excel, you can sum a large range of data by simply selecting a tool button called :
(a) Auto fill.
(b) Auto correct.
(c) Auto sum.
(d) Auto format.

4 Name of the tool used for finding synonyms and antonyms in MS Word :
(a) Bibliography.
(b) Thesaurus.
(c) Citations.
(d) Index.

## B. Multiple Choice :

5 Suppose an equation of a line is given as $\mathrm{Y}=5-2 \mathrm{X}$. Which of the following is true for this equation?
(a) The Y-intercept of the line is 2 .
(b) The slope of the line is negative.
(c) The line represents an inverse relationship.
(d) Both (b) and (c) are correct, but not (a).

6 A relative frequency distribution presents frequencies in terms of :
(a) Fractions.
(b) Whole numbers.
(c) Percentages.
(d) Both (a) and (c).

7 Which of the following is the first step in calculating the median of a data set ?
(a) Average the middle two values of the data set.
(b) Array the data.
(c) Determine the relative weights of the data values in terms of importance.
(d) None of these.

8 The weighted index method in which quantities consumed during the base period are used as weights, is the :
(a) Laspeyres method.
(b) Paasches method.
(c) Fisher's method.
(d) All of the above.
C. Fill in the blanks :

9 The software package SPSS stands for $\qquad$
10 $\qquad$ may be defined as delivery of government services and information to the public using electronic means.

11 $\qquad$ consist of the facts and figures that are collected, analysed, and summarized for presentation and interpretation.

12 A graph of a cumulative frequency distribution is called a $\qquad$
D. State True or False :

13 Extreme values in a data set have a strong effect on the median.
14 The standard deviation is equal to the square root of the variance.
15 The index number for a base year is always zero.
16 Regression analysis is used to determine cause-and-effect relationships.
(16x 1/4 $=4$ weightage)

## Part B (Short Answer Questions)

Answer any ten questions.
Each questions carries 2 weightage.
17 State whether each of the following variables are qualitative or quantitative in nature :
(a) Rank in a course.
(b) Gender.
(c) Soft-drink size (small, medium, large).
(d) Age.
(e) Model of car.

18 Explain the usage of the Network Places component of the windows operating system.
19 Explain briefly the use of computers in the following areas: (a) Education; (b) Advertising; and (c) Government.

20 (a) Write the formula to calculate the amount owned on a loan of Rs. 1,000 over three years at an interest rate- of $8 \%$ compounded annually.
(b) Write the formula to calculate the present value of Rs. $\mathbf{6 , 0 0 0}$ that is expected to be received in three years' time with simple interest of $7.5 \%$ per annum.

21 Write the Excel formula to solve the following :
(a) $753 \mathrm{e}^{10}$, (e represents exponential).
(b) $\ln (4.8)+\operatorname{In}(24)$ an means natural logarithm).
(c) $3 \mathrm{x}^{5}+25^{3} \cdot{ }^{5}-\mathrm{Q}$.
(d) $\frac{\mathrm{M}}{\left(1+{ }^{-}\right)}$

22 What is splicing ? Why it is used ?
23 What are the uses of trend analysis ? Explain, using step-by-step procedure, any one method to do trend analysis in Excel.

24 Differentiate between software, data and hardware.
25 What is a variable ? Explain the four scales of measurement for a variable with suitable examples.

26 'Little Genius' Nursery can continue to be financially supported by the local panchayat as long as the average income of the families whose children attend the nursery is below Rs, 12,500 . The family incomes of the attending children are:

$$
14,50015.60012,5008,6007,8006,5005,90010.2008,80014,300
$$

Does 'Little Genius' Nursery qualify now for the panchayat's financial support? Why?
27 Explain in detail major components of computer hardware.
28 Calculate the range and the mean deviation for this sample: $35.1,15.3,100.3,62.1,77.2$.

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\text { (10 } \times 2=20 \text { weightage) }
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## Part C (Essay Questions)

Answer any three questions.
Each questions carries 4 weightage.
29 Explain, how can computers be beneficial in economic analyses?
30 (a) Why do construct price indices ? Explain different methods of constructing indices.
(b) Fruit prices and the amounts consumed for 1995 and 2005 are below. Use 1995 as the base.

Item 20052012

|  | Price (Rs. I kg.) | Quantity | Price (Rs. Ikg.) | Quantity |
| :--- | :---: | :---: | :---: | :---: |
| Banana | 20 | 160 | 30 | $\mathbf{2 1 0}$ |
| Apples | 80 | 65 | 100 | $\mathbf{1 0 5}$ |
| Oranges | 40 | 115 | 60 | $\mathbf{1 4 5}$ |

(1) Determine Laspeyres' price index.
(ii) Determine the Paasche price index.

