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(November)

ECONOMICS

(Major)

Course : 301

(Microeconomics—II)

Full Marks : 80

Pass Marks : 32 (Backlog) / 24 (2014 onwards)

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Choose the most appropriate answer of the following : 1×8=8
- (a) In describing a given production technology, the short run is best described as lasting
- (i) up to 6 months from now
 - (ii) up to 1 year from now
 - (iii) as long as all inputs are fixed
 - (iv) as long as at least one input is fixed

(b) In the long run, some firms will exit the market if the price of the goods offered for sale is less than

(i) AFC

(ii) MC

(iii) ATC

(iv) AR

(c) Which of the following is a characteristic of monopoly market?

(i) Single firm

(ii) Firm produces a unique product

(iii) Existence of some promotional or informative advertising

(iv) All of the above

(d) In the context of oligopoly, the kinked demand hypothesis is designed to explain

(i) price-output determination

(ii) price rigidity

(iii) price leadership

(iv) collusion among rivals

(e) The firm in a perfectly competitive market is a price taker. The designation as a price taker is based on the assumption that

(i) the firm has nominal control over its product price

(ii) there are so many buyers and sellers in the market that any individual firm cannot affect the market

(iii) there is easy entry into or exit from the market place

(iv) None of the above

(f) The theory of distribution (primarily) analyzes the principle which explains

(i) the distribution of goods and services among consumers

(ii) the allocation of resources in different sectors of the economy

(iii) the distribution of profits among shareholders

(iv) None of the above

(g) Non-specific factors, which can be put to numerous uses, earn

(i) a large amount of rent

(ii) a small amount of rent

(iii) no rent

(iv) all rent

(h) A market failure occurs

(i) when a small group of firms holds significant market power

(ii) if production of the good or service results in an externality

(iii) Both (i) and (ii)

(iv) Neither (i) nor (ii)

2. Write short notes on any *four* of the following
(within 150 words each) :

4×4=16

(a) Optimal resource allocation in perfect competition

(b) Sources of monopsony power

(c) Characteristics of Few Sellers Market

(d) Collective bargaining

(e) Causes of market failure

Answer the following questions (**within 500 words** each) :

3. (a) When does competition become perfect in a commodity market? "In the long run, all firms in a perfectly competitive industry earn zero economic profit." Illustrate. 3+9=12

Or

- (b) Explain the process of derivation of the long-run supply curves of constant, increasing and decreasing cost industries. 4+4+4=12

4. (a) Explain the factors that give rise to monopoly. Describe how a monopolist determines his profit-maximizing output, the price to charge and resultant economic profit, if any, in the short run. 3+8=11

Or

- (b) Explain the meaning of simple monopoly and discriminating monopoly with examples. How does a profit-maximizing discriminating monopolist determine the prices in different markets? Illustrate. 3+8=11

5. (a) Point out the essential differences between monopolistic competition and oligopoly. How are the price and output determined in monopolistic competition? Explain. 4+7=11

Or

- (b) What are the monopolistic and competitive elements of monopolistic competition? A monopolistically competitive output is smaller than perfectly competitive output. Illustrate. 4+7=11

6. (a) Explain the marginal productivity theory of distribution. What are its limitations? 7+4=11

Or

- (b) Define gross profit and net profit. Explain risk- and uncertainty-bearing theories of profits. 3+8=11

7. (a) What is general equilibrium? Describe 'interrelations and interdependence of markets'. 3+8=11

(7)

Or

- (b) What is the meaning of 'economic efficiency'? Write a note on the general equilibrium and economic efficiency of competitive markets. 4+7=11

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(November)

ECONOMICS

(Major)

Course : 302

(Statistical Methods in Economics)

Full Marks : 80

Pass Marks : 32 (Backlog) / 24 (2014 onwards)

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

1. Answer the following as directed : $1 \times 8 = 8$

(a) A normal, smooth, continuous and perfectly symmetrical bell-shaped curve is called

(i) platykurtic

(ii) leptokurtic

(iii) mesokurtic

(iv) skewed curve

(Choose the correct answer)

(b) If r is greater than 6 times the probable error ($r > 6 PE$), then

- (i) correlation in two variables is significant
- (ii) there is no evidence of correlation in two variables
- (iii) correlation should not be considered at all marked
- (iv) None of the above

(Choose the correct answer)

(c) The factor reversal test is satisfied, if

$$P_{01} \times P_{10} = \frac{\Sigma p_1 q_1}{\Sigma p_0 q_0}$$

(Write True or False)

(d) Mention one demerit of mean deviation.

(e) Two or more events are said to be equally likely, if the chance of their happening is

- (i) equal
- (ii) favourable
- (iii) exhaustive
- (iv) independent

(Choose the correct answer)

(f) The regression analysis which studies more than two variables at a time is called _____ regression.

(Fill in the blank)

(g) For calculation of index numbers, the best average is

(i) arithmetic mean

(ii) geometric mean

(iii) harmonic mean

(iv) median

(Choose the correct answer)

(h) The error associated with accepting a hypothesis when it is false is known as

(i) type I error

(ii) type II error

(iii) type III error

(iv) None of the above

(Choose the correct answer)

2. Write short notes on any *four* of the following
(**within 150 words** each) : 4×4=16

(a) Conditions for an ideal measure of dispersion

(b) Systematic sampling

- (c) Method of least squares
- (d) Sample space and events
- (e) Use of index numbers for deflating other series

3. (a) Discuss the relationship among mean, median and mode. Which one is the best average and why? 4+7=11

Or

(b) (i) The mean marks of 100 students were found to be 40. Later on it was discovered that a score of 53 was misread as 83. Find the correct mean. 5

(ii) Compute the mean deviation from mean for the following series : 6

Marks	0-10	10-20	20-30	30-40	40-50
No. of students	5	8	15	16	6

4. (a) Write brief notes on the following : 5+3+3=11

- (i) Distinction between sampling and census
- (ii) Formulation of null hypothesis
- (iii) Critical region

Or

- (b) The following table gives the classification of 500 workers according to sex and nature of work. Test whether nature of work is independent of the sex of the worker :

11

Nature of work → Sex ↓	Skilled	Unskilled	Total
Males	140	120	260
Females	110	130	240
Total	250	250	500

[The value of χ^2 for 1 degree of freedom at 5% level of significance is 3.84.]

5. (a) (i) A coin is tossed 6 times. What is the probability of getting at least 2 heads? 5
- (ii) Mention the properties of normal distribution. 6

Or

- (b) If one card is drawn from a well-shuffled pack of card, what is the probability of getting—

- (i) either a king or a queen;
- (ii) either a spade or a diamond;
- (iii) neither an ace nor a jack;
- (iv) either black or red? $3+3+3+2=11$

(6)

6. (a) Find Karl Pearson's coefficient of correlation between the following values of X and Y and compute the probable error : 9+3=12

X	78	89	96	69	59	79	68	61
Y	125	137	156	112	107	136	123	108

Or

- (b) The following data are given for marks in Economics (Y) and Statistics (X) in a certain year. Determine the two regression equations, and also find the probable marks in Economics of a candidate who obtained 50 marks in Statistics : 5+5+2=12

Mean marks in Statistics—39.5

Mean marks in Economics—47.6

Standard deviation of marks
in Statistics—10.8

Standard deviation of marks
in Economics—16.9

r between marks in Statistics
and Economics—0.42

(7)

7. (a) Calculate Fisher's ideal index from the following data and prove that it satisfies both the time reversal and factor reversal tests : $5+3+3=11$

Commodity	2014		2015	
	Price	Expenditure	Price	Expenditure
A	8	80	10	120
B	10	120	12	96
C	5	40	5	50
D	4	56	3	60
E	20	100	25	150

Or

- (b) (i) Explain the problems of construction of index numbers. 5
- (ii) The following are the index number of prices (base 1991 = 100). Shift the base from 1991 to 2001 : 6

Year	2000	2001	2002	2003	2004	2005	2006	2007
Index numbers	140	200	210	230	250	260	280	300

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