Economics and Statistics

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Time allowed: 3 hours Maximum marks: 100

Total number of questions: 8

Total number of printed pages: 7

PART-A

(Answer Question No.1 which is compulsory and any two of the rest from this part.)

- 1. (a) State, with reasons in brief, whether the following statements are correct or incorrect:
 - ① Positive economics and normative economics are synonyms to each other.
 - (ii) There is normally a direct relationship between price and quantity in supply of a commodity.
 - (iii) The agriculture sector holds the dominant position in the Indian economy in terms of contribution to India's Gross Domestic Product (GDP).
 - (iv) National income is the aggregate money value of all goods and services produced in the country over a period of time, usually one year.
 - (v) A surplus in balance of trade necessarily implies a surplus in the current account of balance of payments of an economy.

(2 marks each)

- (b) Choose the most appropriate answer from the given options in respect of the following:
 - ① Elasticity of demand for a necessity like salt is normally -
 - (a) Equal to 1
 - (b) Less than 1
 - (c) Greater than 1
 - (d) Infinite.
 - (ii) The demand curve of a firm under perfect competition is -
 - (a) Vertical
 - (b) Horizontal
 - () Negatively sloped
 - (d) Positively sloped.
 - (iii) If all factors of production are increased by 100% and the output increases by 90%, it is a case of -
 - (a) Increasing returns to scale
 - (b) Decreasing returns to scale
 - (c) Constant returns to scale
 - (d) None of the above.

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- (iv) In the case of a free good, the level of consumption where marginal utility is zero and the total utility is maximum, it is called -
 - (a) Consumers equilibrium
 - (b) Consumers dissatisfaction
 - () Negative utility
 - (d) Equi-marginal utility.
- (v) According to Fisher, total supply of money is -
 - (a) $MV + M^1V^1$
 - (b) $MV^1 + M^1V$
 - $\Theta = \frac{MV + M^{1}V^{1}}{T}$
 - (d) None of the above.
- (vi) The average revenue curve of a firm is also known as its -
 - (a) Profit curve
 - (b) Demand curve
 - d Income curve
 - (d) None of the above.
- (vii) Which one of the following is not a function of RBI -
 - (a) To issue currency notes
 - (b) To regulate supply of credit
 - (c) To act as banker to the government
 - (d) To regulate foreign trade.
- (viii) Point out the odd one out of the following -
 - (a) Delhi Transport Corporation
 - (b) Indian Railways
 - () Hindustan Aeronautics Ltd.
 - (d) Reliance Industries Ltd.
 - (ix) Product differentiation is the basic feature of -
 - (a) Monopoly
 - (b) Monopolistic competition
 - () Perfect competition
 - (d) All of the above.

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		(⋈)	Who is the ex-officio Chairman of the Planning Commission of India	_
			(a) The Prime Minister	
			(b) The Finance Minister	
			() The Planning Minister	
			(d) The President of India.	
			(1 mark	each)
2.	(a)	Dist	tinguish between any three of the following:	
		(i)	'Increase in demand' and 'expansion in demand'.	
		(ii)	'Market economy' and 'planned economy'	
		(iii)	'Revenue deficit' and 'fiscal deficit'.	
		(iv)	'Inferior goods' and 'Giffen goods'.	
			(3 marks	each)
	(b)		write the following sentences after filling-in the blank spaces with approx $\mathrm{d}(\mathrm{s})/\mathrm{figure}(\mathrm{s})$:	priate
		6)	Internal economies accrue to a firm when it its operation.	
		(ii)	Alfred Marshall's definition of economics is concerned withwelfare.	
		(iii)	is additional total cost when an additional unit of produced.	uction
		(iv)	Government policy relating to public revenue, expenditure and borrowing called	ngs is
		(v)	The average number of persons per square kilometre of area is o	alled
		(vi)	All factors of production are variable in run.	
			(1 mark	each)
3.	Com	ment	on any three of the following:	
	6)	Unde	er perfect competition, the problem before a firm is to determine output	only.
	(ii)	The	Industrial Policy, 1991 redefined the role of public sector.	
	(iii)	The	welfare of people increases with increase in Gross National Product	(GNP).
	(iv)	Sele	ective credit controls regulate the flow of credit in particular directions	
			(5 marks	each)
4.	Atte	empt	any three of the following:	
	6)		antity demanded of a commodity bears an inverse relationship to its proborate the statement with the help of a diagram.	rice."
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- (ii) What do you mean by 'economies of scale' ? What are its different sources ?
- (iii) Name the methods of computing national income. Describe in detail the product method.
- (iv) What do you mean by 'monetary policy'? Discuss its various objectives.

(5 marks each)

PART-B

(Answer Question No.5 which is compulsory and any two of the rest from this part.)

- 5. (a) State, with reasons in brief, whether the following statements are correct or incorrect:
 - (1) Statistical results are true only on an average.
 - (ii) Geometric mean gives higher weight to large items and less weight to small items.
 - (iii) Same weight is given to all commodities in a weighted index number.
 - (iv) Lorenz curve furnishes a quantitative measure of dispersion.
 - (v) There is an inverse relationship between the size of the sample and accuracy of the result.

(2 marks each)

- (b) Choose the most appropriate answer from the given options in respect of the following:
 - ① The arranging of related facts into classes is called -
 - (a) Diagram
 - (b) Graph
 - 6 Classification
 - (d) Tabulation.
 - (ii) Ogive curve is drawn with the help of -
 - (a) Tallies
 - (b) Median
 - () Cumulative frequency distribution
 - (d) None of the above.
 - (iii) The index number which adopts base year quantities as weights is a method of -
 - (a) Laspeyre
 - (b) Bowley
 - () Fisher
 - (d) Paasche.

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- (iv) Co-efficient of variation is a -
 - (a) Absolute measure
 - (b) Relative measure
 - (c) Both (a) and (b)
 - (d) Neither (a) nor (b).
- (v) Which of the following averages would be more suitable for ascertaining average size of shoes
 - (a) Arithmetic mean
 - (b) Mode

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- 6 Geometric mean
- (d) Median.
- (vi) Which average is affected most by extreme observations -
 - (a) Mode
 - (b) Median
 - Geometric mean
 - (d) Arithmetic mean.
- (vii) While drawing a scatter diagram, if all the points appear to form a straight line going downward from left to right, then it is inferred that there is a -
 - (a) Perfect positive correlation
 - (b) Simple positive correlation
 - (c) Perfect negative correlation
 - (d) No correlation.
- (viii) Which graphical representation is suitable for determining mode -
 - (a) Histogram
 - (b) Ogive curve
 - (c) Frequency curve
 - (d) Z-curve.
 - (ix) A distribution in which the values of mean, mode and median coincide is known as -
 - (a) Asymmetrical distribution
 - (b) Skewed distribution
 - (c) Symmetrical distribution
 - (d) Non-normal distribution.

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		(⋈)	The squa	re root of co	-efficient	of non-deter	mination is	called —		
			(a) Co-e	efficient of a	lienation					
			(b) Co-e	efficient of d	leterminatio	n				
			() Co-e	efficient of ∞	orrelation					
			(d) Cb-e	efficient of re	egression.					
								(1	mark each)	
6.	(a)	Dist	inguish :	between <i>any t</i>	three of the	e following	:			
		6)	'Primary	data' and 's	econdary da	ita'.				
		(ii)	'Mean de	viation' and	'standard d	leviation'.				
		(iii)	'Karl Pea	erson's co-eff:	icient' and	'rank correla	ation co-effic	cient'.		
		(iv)	'Wholesa	le price inde	ex number' a	and 'cost of	living inde	ex number'	•	
								(3 I	marks each)	
	(b)		write the l(s)/figure	following sene(s):	tences aftei	r filling-in	the blank sp	paces with	appropriate	
		6)	The law regularit	of inertia of Y:	large numb	pers is	of th	he law of	statistical	
		(ii) Co-efficient of variation is usually expressed in								
		(iii)	ii) `r' is significant if it is of probable error.							
		(iv) is the ratio of explained variation to the total variation.								
		(v)	quantity	requires t / index numbe	/ _	_	ice index a			
		(vi)	'Trend 1	ine' obtained	by method	of least sq	uares is cal	led	·	
								(1	mark each)	
7.	(a)		te the cha	aracteristics	which the	numerical da	ata should p	ossess to	be known as	
		Dunc	ibaras.						(5 marks)	
	(b)	Expl	ain laws	of statistics.						
									(5 marks)	
	6	Exp.	lain the	'census inves	tigation me	thod'. What	t are its me	erits ?	/F 1)	
					•	_			(5 marks)	
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			Marks 1 Marks 2		35	17	23	47		
			MALKS 2	2 45	20	40	25	45	(5 marks)	
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8. (a) Compute mean and median from the following data:

Age (Years)	10-20	20-30	30-40	40-50	50-60
No. of Workers	15	18	30	20	17
					(5 marks

(b) Calculate Fisher's index number for the year 2008 from the data given below:

	2	007	2008		
Item	Price	Quantity	Price	Quantity	
	(Rs.)	(Kgs.)	(Rs.)	(Kgs.)	
А	5	10	4	12	
В	8	6	7	7	
С	6	3	5	4	

(5 marks)

(c) Compute standard deviation and co-efficient of variation from the following data:

Size	1	2	3 4	5	6	7
Frequency	6	12	18 26	16	10	8
						(5 marks)

