May - 2024

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5136 **H**

Unique Paper Code : 2922101201

Name of the Paper : MACROECONOMICS - I

Name of the Course : **B. A. (Honours) Business Economics [NEP: UGCF-2022]**

Semester : II

Duration : 3 Hours Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **Six** questions from all.
3. **Question number 1** is mandatory to attempt.
4. Attempt at least minimum **two questions** including mandatory question from **each section.**

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5. All questions carry equal marks.

6. Illustrate your answer with suitable diagrams, whenever required.

Section A

1. Consider the following statement, state whether true or false, give arguments in support of your answer (any three)

   (i) GDP deflator is a useful measure of Inflation

   (ii) A fiscal Expansion shifts the IS Curve to the left.

   (iii) Full-employment means zero unemployment

   (iv) Aggregate demand curve shift upwards parallel due to change in MPC (5*3=15)

2. Explain Investment Multiplier with the help of a diagram. Show how it is directly related to MPC and inversely related to MPS (10+5)

3. "An increase in quantity of money leads to a proportionate increase in the value of out-put and a proportionate decrease in the purchasing power of money" Critically examine the statement (15)

4. "Commercial Banks create credit whereas central bank controls credit" Explain (15)

Section B

5. In a three sector model suppose C=400+0.8Yd, I = 1400-100i.Tx=500, G=500, L=0.20Y-50i and M=1000

   (a) Find the equation of IS Curve

   (b) Find the Equation of LM Curve

   (c) Find the simultaneous equilibrium for the IS -LM Curves, showing out-put,rate of interest,consumption and investment

   (d) Comment on the crowding out effect consequent to increase in government spending from 500 to 800 (3+3+5+4)

6. "Monetary policy accommodates fiscal expansion" and Monetary policy is totally ineffective in the Keynesian liquidity trap. Explain. (15)

7. Explain the concept of natural rate of unemployment. What are the implications of Milton Friedman's theory of the natural rate of unemployment for the effectiveness of economic stabilisation policies? (15)

8. Write short notes on **any three** (5*3=15)

(a) Distinction between Macroeconomics and Microeconomics

(b) Paradox of Thrift

(c) Circular Flow of income in a three sector economy

(d) Phillips curve

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5189 **H**

Unique Paper Code : 2922101202

Name of the Paper : Financial Institutions and Markets

Name of the Course : **B.A. (Hons.) Business Economics 2023**

Semester : II

Duration : 3 Hours Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. This paper contains Eight questions. Attempt any **Six** questions.
3. **All** questions carry equal marks.
4. Use of a simple calculator and time value tables is allowed.

1. A bank provides the following terms and conditions to a Prospective home loan borrower:
   (a) Amount of loan — Rs.8, 00,000.
   (b) Duration of loan: 8 years and loan installments to be paid on an annual basis.
   (c) The terms of the interest are: Fixed Rate of Interest: 5% per annum **OR** Floating Rate of Interest: 4% per annum.
   (d) After four years, the floating rate is expected to rise to 5% per annum and the corresponding fixed rate shall be 7%. Also, there is a high probability of a further rise in the floating rate in subsequent years. At this time if the borrower decides to switch from floating to fixed, he will have to bear a switching cost of 2% of the outstanding amount. Assuming that the interest is compounded annually, determine whether the home loan borrower should opt for
      (i) **Option-1** : Fixed rate or
      (ii) **Option 2:** Floating rate of interest initially and then switching to fixed rate of interest after four years due to an expectation of further hike in the floating interest rate. (15)
2. "From managing the monetary policy to regulating the financial sector, the RBI has been instrumental in laying the foundation for India's economic growth". Do

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you agree? Support your answer with reasons. How is the SARFAESI Act, 2002 safeguarding the interest of banks in the lending process? (15)

3. Explain the probable reasons, a company would go for Initial Public Offerings (IPOs). Further, state the IPO procedure with respect to the 'Intermediaries' and 'Entry norms' for issuance of IPOs. (15)

4. XYZ Company Ltd intends to make a public issue of equity shares of Rs. 120 each at par (Cut off price), payable fully on application as well as allotment (assuming cut off price has been decided through book building process). The total number of applications of 20,00,000 shares are received from different categories of investors. The company decides to allot additional 15% shares using 'Green shoe Option' (GSO). The expenses incurred by stabilising agent were Rs. 30,000.

Given the above information, you are required to analyse the post listing price (market price) of such shares under three different situations using the table given below.

(a) **Situation I:** Post listing price of Rs. 100 when 1,50,000 shares are bought from the market and credited in GSO Demat Account.

(b) **Situation II:** Post listing price of Rs. 140 when no shares are bought from the market and credited in GSO Demat Account.

(c) **Situation III:** Post listing price of Rs.120 when 1,00,000 shares are bought from the market and credited in GSO Demat Account. (15)

S.No	GSO details.	Situation- I	Situation-II	Situation-III
1	Net Offer to the public Made by XYZ Company Limited (No. of Shares)			
2	Total number of applications received			
3	IPO price (Listing Price)			
4.	Total amount of IPO size			
5.	Shares lent by promoters to Stabilising agent			

6.	Amount in GSO bank account from IPO proceeds			
7	Post Listing Market Price			
8.	Shares credited to GSO Demat Account.			
9.	Amount used from GSO Bank Account for market purchases.			
10.	Balance amount in GSO Bank Account.			
11.	Number of new shares allotted by the company to GSO Demat Account.			
12.	Number of shares return to promoters from GSO Demat Account.			
13.	Amount remitted to company on account of fresh shares allotted.			
14.	Stabilising expense.			
15.	Balance amount in GSO bank account to be transferred to 'Investor Protection & Education fund'.			

(15)

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5. What is Margin trading? Explain the mechanism of margin trading. State the salient features of the SEBI margin trading norms. (15)

6. Write short note on the methodology that has been adopted to create SENSEX and NIFTY.

Given below is the information about the three stocks that alone constitute the index. The base period of the stocks was Ist July 1980 for which the value may be taken as one and you are required to compute the index for these stocks as on Ist January 2023 assuming no additional shares were issued for any of these three stocks. Compute both price and value weighted indices and do the two indices match? Comment.

Stock	Outstanding Number	Base year Price (Rs.)	Recent Period Price (Rs.)	% Change in Prices
A	40,000	20	28	+40%
B	25,000	30	50	+66.67%
C	1,00,000	32	40	+25%

(15)

7. The private corporate sector needs long-term funds to carry out its strategic decisions. Discuss the importance of the corporate debt market in this regard. State the regulations that govern the issue and listing of corporate debt securities in India.

Further, calculate the expected current price of a corporate bond having a face value of Rs. 1,000 with coupon rate 6% p.a., Y TM 8% p.a. and 7 years to maturity. Will the value be different if interest is paid semi-annually? (15)

8. Write Short notes on any three of the foliowing: (5,5,5)

(a) Certificate of Deposit Market

(b) Types of Orders in Secondary Market

(c) Selling Methods for PSU Disinvestment

(d) Credit Rating Agencies

(1000)

[This question paper contains 12 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5238 **H**

Unique Paper Code : 2922101203

Name of the Paper : Statistics for Business Economics – I

Name of the Course : **B.A. (Hons.) Business Economics (2023)**

Semester : II

Duration : 3 Hour Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **all** questions. Choice is available within each question.
3. Use of simple calculator is allowed.
4. Required statistical tables are attached with this paper.

1. Attempt any **three** questions : (3×10=30)

   (a) A sample of the daily earnings of a food vendor on a street outside a college was collected for 300 days. The distribution of earnings is as follows :

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Earning Range (Rs.):	100-200	200-250	250-300	300-400	400-600
No. of days:	40	60	50	70	80

(i) On what percentage of the days did the vendor earn less than Rs. 270?

(ii) Construct a histogram for the above data and comment on its symmetry.

(b) Given the following data: 15.0, 13.0, 18.0, 14.5, 12.0, 11.0, 8.9, 8.0

(i) Determine the values of the sample mean, sample median, 12.5% trimmed mean and compare these values.

(ii) How will the median change if the two observations 18.0 and 12.0 are changed to 20 and 14 respectively.

(c) A sample of 19 offshore oil workers took part in a simulated escape exercise, resulting in the accompanying data on time (sec) to complete the escape

5 10 55 60 70 75 85 85 90 90 92 94 94 95 98 100 115 125 190

(i) Construct a boxplot and comment on its features.

(ii) How large or small does an observation have to be to quality a an outlier? Are there any outliers in the sample? Any extrem outliers?

(d) (i) Pearson measure of Skewness for a distribution is 0.4 and coefficien of variation is 30%. Mode is 0.88. Find the mean and median of th distribution.

(ii) If $\sqrt{\beta_1} = 1$, $\beta_2 = 4$ and variance = 9, find the values of third an fourth central moments and comment upon the nature of th distribution

2. Attempt any **four** questions : (4×10=40

(a) (i) If the probability that student A will fail a certain statistics examinatio is 0.5, the probability that student B will fail the examination is 0. and the probability that both student A and student B will fail th examination is 0.1, what is the probability that at least one of the two students will fail the examination.

(ii) If P(A) = 0.3, P(B) = 0.2 and $P(A \cap B) = 0.1$, determine the followi probabilities :

(i) $P(A \cup B)$

(ii) $P(A' \cap B)$

(iii) $P(A \cap B')$

(iv) $P(A \cup B')$

(b) A joint probability mass function for discrete variable X and Y is as follows :

X↓ \ Y→	10	20	30
5	0.1	0.05	0
6	0.15	0.25	0.05
7	0.05	0.2	0.15

Calculate

(i) E(X)

(ii) Variance of Y

(iii) Conditional distribution of X given that $Y \geq 20$.

(c) If the joint probability density of X and Y is given by

$$f(x) = \begin{cases} \frac{1}{4}(2x + y) & 0 < x < 1 : 0 < y < 2 \\ 0 & \textit{otherwise} \end{cases}$$

Find

(i) the marginal density of X and Y;

(ii) the conditional density of A given Y = 1.

(iii) Also determine whether the two random variables are independent.

(d) (i) If X is the random variable whose cdf is given by F(x) :

$$F(x) = \begin{cases} 0 & x < 0 \\ x + \frac{1}{2} & 0 \le x < \frac{1}{2} \\ 1 & x \ge \frac{1}{2} \end{cases}$$

Find

(i) $P\left(X \le \frac{1}{4}\right)$, (ii) $P\left(0 < X \le \frac{1}{4}\right)$,

(iii) $P(X = 0)$ (iv) $P\left(0 \le x \le \frac{1}{4}\right)$

(ii) If X is a continuous random variable with probability density function

$$f(x) = \begin{cases} \frac{x}{6} + K & 0 \le x \le 3 \\ 0 & \textit{otherwise} \end{cases}$$

(i) Find the value of K and $P(1 \le X \le 2)$.

(e) (i) If the probability that an individual suffers a bad reaction from injection of a given serum is 0.001, determine the probability that out of 2000 individuals (a) exactly 3 and (b) more than 2 individuals will suffer a bad reaction.

(ii) 500 tubes manufactured by a company have a mean lifetime of 800 hrs and a standard deviation of 60 hrs. Assuming the distribution to be normally distributed, how many tubes will have a mean lifetime of (i) between 790 and 810 hrs, (ii) less than 785 hrs.

3. Attempt any **two** of the following : (2×5=10)

(a) (i) Write a brief note on the coefficient of correlation and its properties.

(ii) Find the coefficient of correlation from the following data and interpret its value :

X	10	6	9	12	13
Y	6	4	5	8	7

(b) Find the rank correlation between the two variables X and Y :

Marks	50	55	55	60	68	70	74	80
I.Q	90	110	95	105	120	125	115	118

(c) (i) The coefficient of correlation between two variables X and Y is 0.4 and their covariance is 10. If the variance of X series is 9, find the standard deviation of Y.

(ii) The correlation coefficient between two variables X and Y is found to be 0.4. What is the correlation between 2X and (–Y)?

4. Attempt any **two** questions : (2×5=10)

(a) The following are the index no.s of wholesale prices of a certain commodity :

Year	2012	2013	2014	2015	2016	2017
Index no.	100	118	128	156	220	260

(i) Shift the base to 2014 and obtain new index numbers.

(b) Splice the given two series as to make 'A' a continuous series,

(i) A = Old series and (ii) B = New series.

Year	A =Index (old series)	B = Index (new series)
2006	95	
2007	110	
2008	115	
2009	120	100
2010		104
2011		106
2012		112

(c) (i) The following tables give the annual income of a person and the general price index for the period 2015 to 2019. Prepare the index number to show real income of a person.

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Year	Annual Income in Rs.	Price Index Number
2015	25000	100
2016	30000	120
2017	40000	145
2018	50000	160
2019	60000	200

(ii) The consumer price index over a certain period increased from 130 to 250 and wages of a worker increased from Rs. 1700 to Rs. 3100. What is the gain or loss to the worker?

Table A.1 Cumulative Binomial Probabilities *(cont.)*

$$B(x; n, p) = \sum_{y=0}^{x} b(y; n, p)$$

e. $n = 25$

		p													
		0.01	0.05	0.10	0.20	0.25	0.30	0.40	0.50	0.60	0.70	0.75	0.80	0.90	0.95	0.99
	0	.778	.277	.072	.004	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	1	.974	.642	.271	.027	.007	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000
	2	.998	.873	.537	.098	.032	.009	.000	.000	.000	.000	.000	.000	.000	.000	.000
	3	1.000	.966	.764	.234	.096	.033	.002	.000	.000	.000	.000	.000	.000	.000	.000
	4	1.000	.993	.902	.421	.214	.090	.009	.000	.000	.000	.000	.000	.000	.000	.000
	5	1.000	.999	.967	.617	.378	.193	.029	.002	.000	.000	.000	.000	.000	.000	.000
	6	1.000	1.000	.991	.780	.561	.341	.074	.007	.000	.000	.000	.000	.000	.000	.000
	7	1.000	1.000	.998	.891	.727	.512	.154	.022	.001	.000	.000	.000	.000	.000	.000
	8	1.000	1.000	1.000	.953	.851	.677	.274	.054	.004	.000	.000	.000	.000	.000	.000
	9	1.000	1.000	1.000	.983	.929	.811	.425	.115	.013	.000	.000	.000	.000	.000	.000
	10	1.000	1.000	1.000	.994	.970	.902	.586	.212	.034	.002	.000	.000	.000	.000	.000
	11	1.000	1.000	1.000	.998	.980	.956	.732	.345	.078	.006	.001	.000	.000	.000	.000
x	12	1.000	1.000	1.000	1.000	.997	.983	.846	.500	.154	.017	.003	.000	.000	.000	.000
	13	1.000	1.000	1.000	1.000	.999	.994	.922	.655	.268	.044	.020	.002	.000	.000	.000
	14	1.000	1.000	1.000	1.000	1.000	.998	.966	.788	.414	.098	.030	.006	.000	.000	.000
	15	1.000	1.000	1.000	1.000	1.000	1.000	.987	.885	.575	.189	.071	.017	.000	.000	.000
	16	1.000	1.000	1.000	1.000	1.000	1.000	.996	.946	.726	.323	.149	.047	.000	.000	.000
	17	1.000	1.000	1.000	1.000	1.000	1.000	.999	.978	.846	.488	.273	.109	.002	.000	.000
	18	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.993	.926	.659	.439	.220	.009	.000	.000
	19	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.998	.971	.807	.622	.383	.033	.001	.000
	20	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.991	.910	.786	.579	.098	.007	.000
	21	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.998	.967	.904	.766	.236	.034	.000
	22	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.991	.968	.902	.463	.127	.002
	23	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.998	.993	.973	.729	.358	.026
	24	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.999	.996	.928	.723	.222

Table A.2 Cumulative Poisson Probabilities

$$F(x; \mu) = \sum_{y=0}^{x} \frac{e^{-\mu} \mu^{y}}{y!}$$

		μ									
		.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
	0	.905	.819	.741	.670	.607	.549	.497	.449	.407	.368
	1	.995	.982	.963	.938	.910	.878	.844	.809	.772	.736
	2	1.000	.999	.996	.992	.986	.977	.966	.953	.937	.920
x	3		1.000	1.000	.999	.998	.997	.994	.991	.987	.981
	4				1.000	1.000	1.000	.999	.999	.998	.996
	5							1.000	1.000	1.000	.999
	6										1.000

(continued)

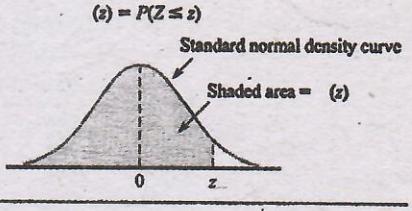
Table A.2 Cumulative Poisson Probabilities *(cont.)*

$$F(x;\mu) = \sum_{y=0}^{x} \frac{e^{-\mu}\mu^{y}}{y!}$$

	μ										
	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	15.0	20.0
0	.135	.050	.018	.007	.002	.001	.000	.000	.000	.000	.000
1	.406	.199	.092	.040	.017	.007	.003	.001	.000	.000	.000
2	.677	.423	.238	.125	.062	.030	.014	.006	.003	.000	.000
3	.857	.647	.433	.265	.151	.082	.042	.021	.010	.000	.000
4	.947	.815	.629	.440	.285	.173	.100	.055	.029	.001	.000
5	.983	.916	.785	.616	.446	.301	.191	.116	.067	.003	.000
6	.995	.966	.889	.762	.606	.450	.313	.207	.130	.008	.000
7	.999	.988	.949	.867	.744	.599	.453	.324	.220	.018	.001
8	1.000	.996	.979	.932	.847	.729	.593	.456	.333	.037	.002
9		.999	.992	.968	.916	.830	.717	.587	.458	.070	.005
10		1.000	.997	.986	.957	.901	.816	.706	.583	.118	.011
11			.999	.995	.980	.947	.888	.803	.697	.185	.021
12			1.000	.998	.991	.973	.936	.876	.792	.268	.039
13				.999	.996	.987	.966	.926	.864	.363	.066
14				1.000	.999	.994	.983	.959	.917	.466	.105
15					.999	.998	.992	.978	.951	.568	.157
16					1.000	.999	.996	.989	.973	.664	.221
17						1.000	.998	.995	.986	.749	.297
18							.999	.998	.993	.819	.381
19							1.000	.999	.997	.875	.470
20								1.000	.998	.917	.559
21									.999	.947	.644
22									1.000	.967	.721
23										.981	.787
24										.989	.843
25										.994	.888
26										.997	.922
27										.998	.948
28										.999	.966
29										1.000	.978
30											.987
31											.992
32											.995
33											.997
34											.999
35											.999
36											1.000

x

Table A.3 Standard Normal Curve Areas



z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
−3.4	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0002
−3.3	.0005	.0005	.0005	.0004	.0004	.0004	.0004	.0004	.0004	.0003
−3.2	.0007	.0007	.0006	.0006	.0006	.0006	.0006	.0005	.0005	.0005
−3.1	.0010	.0009	.0009	.0009	.0008	.0008	.0008	.0008	.0007	.0007
−3.0	.0013	.0013	.0013	.0012	.0012	.0011	.0011	.0011	.0010	.0010
−2.9	.0019	.0018	.0017	.0017	.0016	.0016	.0015	.0015	.0014	.0014
−2.8	.0026	.0025	.0024	.0023	.0023	.0022	.0021	.0021	.0020	.0019
−2.7	.0035	.0034	.0033	.0032	.0031	.0030	.0029	.0028	.0027	.0026
−2.6	.0047	.0045	.0044	.0043	.0041	.0040	.0039	.0038	.0037	.0036
−2.5	.0062	.0060	.0059	.0057	.0055	.0054	.0052	.0051	.0049	.0038
−2.4	.0082	.0080	.0078	.0075	.0073	.0071	.0069	.0068	.0066	.0064
−2.3	.0107	.0104	.0102	.0099	.0096	.0094	.0091	.0089	.0087	.0084
−2.2	.0139	.0136	.0132	.0129	.0125	.0122	.0119	.0116	.0113	.0110
−2.1	.0179	.0174	.0170	.0166	.0162	.0158	.0154	.0150	.0146	.0143
−2.0	.0228	.0222	.0217	.0212	.0207	.0202	.0197	.0192	.0188	.0183
−1.9	.0287	.0281	.0274	.0268	.0262	.0256	.0250	.0244	.0239	.0233
−1.8	.0359	.0352	.0344	.0336	.0329	.0322	.0314	.0307	.0301	.0294
−1.7	.0446	.0436	.0427	.0418	.0409	.0401	.0392	.0384	.0375	.0367
−1.6	.0548	.0537	.0526	.0516	.0505	.0495	.0485	.0475	.0465	.0455
−1.5	.0668	.0655	.0643	.0630	.0618	.0606	.0594	.0582	.0571	.0559
−1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681
−1.3	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823
−1.2	.1151	.1131	.1112	.1093	.1075	.1056	.1038	.1020	.1003	.0985
−1.1	.1357	.1335	.1314	.1292	.1271	.1251	.1230	.1210	.1190	.1170
−1.0	.1587	.1562	.1539	.1515	.1492	.1469	.1446	.1423	.1401	.1379
−0.9	.1841	.1814	.1788	.1762	.1736	.1711	.1685	.1660	.1635	.1611
−0.8	.2119	.2090	.2061	.2033	.2005	.1977	.1949	.1922	.1894	.1867
−0.7	.2420	.2389	.2358	.2327	.2296	.2266	.2236	.2206	.2177	.2148
−0.6	.2743	.2709	.2676	.2643	.2611	.2578	.2546	.2514	.2483	.2451
−0.5	.3085	.3050	.3015	.2981	.2946	.2912	.2877	.2843	.2810	.2776
−0.4	.3446	.3409	.3372	.3336	.3300	.3264	.3228	.3192	.3156	.3121
−0.3	.3821	.3783	.3745	.3707	.3669	.3632	.3594	.3557	.3520	.3482
−0.2	.4207	.4168	.4129	.4090	.4052	.4013	.3974	.3936	.3897	.3859
−0.1	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247
−0.0	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641

(continued)

Table A.3 Standard Normal Curve Areas *(cont.)* $\Phi(z) = P(Z \le z)$

z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	.5000	.5040	.5080	.5120	.5160	.5199	.5239	.5279	.5319	.5359
0.1	.5398	.5438	.5478	.5517	.5557	.5596	.5636	.5675	.5714	.5753
0.2	.5793	.5832	.5871	.5910	.5948	.5987	.6026	.6064	.6103	.6141
0.3	.6179	.6217	.6255	.6293	.6331	.6368	.6406	.6443	.6480	.6517
0.4	.6554	.6591	.6628	.6664	.6700	.6736	.6772	.6808	.6844	.6879
0.5	.6915	.6950	.6985	.7019	.7054	.7088	.7123	.7157	.7190	.7224
0.6	.7257	.7291	.7324	.7357	.7389	.7422	.7454	.7486	.7517	.7549
0.7	.7580	.7611	.7642	.7673	.7704	.7734	.7764	.7794	.7823	.7852
0.8	.7881	.7910	.7939	.7967	.7995	.8023	.8051	.8078	.8106	.8133
0.9	.8159	.8186	.8212	.8238	.8264	.8289	.8315	.8340	.8365	.8389
1.0	.8413	.8438	.8461	.8485	.8508	.8531	.8554	.8577	.8599	.8621
1.1	.8643	.8665	.8686	.8708	.8729	.8749	.8770	.8790	.8810	.8830
1.2	.8849	.8869	.8888	.8907	.8925	.8944	.8962	.8980	.8997	.9015
1.3	.9032	.9049	.9066	.9082	.9099	.9115	.9131	.9147	.9162	.9177
1.4	.9192	.9207	.9222	.9236	.9251	.9265	.9278	.9292	.9306	.9319
1.5	.9332	.9345	.9357	.9370	.9382	.9394	.9406	.9418	.9429	.9441
1.6	.9452	.9463	.9474	.9484	.9495	.9505	.9515	.9525	.9535	.9545
1.7	.9554	.9564	.9573	.9582	.9591	.9599	.9608	.9616	.9625	.9633
1.8	.9641	.9649	.9656	.9664	.9671	.9678	.9686	.9693	.9699	.9706
1.9	.9713	.9719	.9726	.9732	.9738	.9744	.9750	.9756	.9761	.9767
2.0	.9772	.9778	.9783	.9788	.9793	.9798	.9803	.9808	.9812	.9817
2.1	.9821	.9826	.9830	.9834	.9838	.9842	.9846	.9850	.9854	.9857
2.2	.9861	.9864	.9868	.9871	.9875	.9878	.9881	.9884	.9887	.9890
2.3	.9893	.9896	.9898	.9901	.9904	.9906	.9909	.9911	.9913	.9916
2.4	.9918	.9920	.9922	.9925	.9927	.9929	.9931	.9932	.9934	.9936
2.5	.9938	.9940	.9941	.9943	.9945	.9946	.9948	.9949	.9951	.9952
2.6	.9953	.9955	.9956	.9957	.9959	.9960	.9961	.9962	.9963	.9964
2.7	.9965	.9966	.9967	.9968	.9969	.9970	.9971	.9972	.9973	.9974
2.8	.9974	.9975	.9976	.9977	.9977	.9978	.9979	.9979	.9980	.9981
2.9	.9981	.9982	.9982	.9983	.9984	.9984	.9985	.9985	.9986	.9986
3.0	.9987	.9987	.9987	.9988	.9988	.9989	.9989	.9989	.9990	.9990
3.1	.9990	.9991	.9991	.9991	.9992	.9992	.9992	.9992	.9993	.9993
3.2	.9993	.9993	.9994	.9994	.9994	.9994	.9994	.9995	.9995	.9995
3.3	.9995	.9995	.9995	.9996	.9996	.9996	.9996	.9996	.9996	.9997
3.4	.9997	.9997	.9997	.9997	.9997	.9997	.9997	.9997	.9997	.9998

Your Roll No.....

Serial No. of Question Paper	**: 7986**
Unique Paper Code	: 12481201
Name of the Paper	: Microeconomics and Applications-II
Name of the Course	: B.A (H) Business Economics
Semester	: II
Duration	: 3 hours
Maximum Marks	: 75 Marks

Instruction for candidates

1. Write your roll number on the top immediately on receipt of this question paper
2. Question No. 1 is compulsory. Attempt any six questions in all.
3. All questions carry equal marks.

1. Write short notes on any three of the following: (5x3=15)
   a) Price Discrimination
   b) Asymmetric information
   c) Walras' Law
   d) Backward bending supply curve of labour

2. In a duopolist market two firms can produce at a constant average and marginal cost of AC=MC=2.They face the market demand curve P=14-Q, where $Q=Q_1+Q_2$, where Q_1 is the out-put of firm 1 and Q_2 is the out-put of firm 2. In the cournot's model: (12)
   a) Find reaction curves of two firms
   b) Calculate the profit maximising equilibrium price and out-put
   c) What are the profits of two firms?
   d) Compare it with competitive equilibrium.

3. What is price rigidity? Why does price rigidities arise in oligopolistic market? Explain price rigidity with the help of kinked -demand curve model. (12)

4. Why the market demand curve for a variable productive service is not the simple horizontal summation of individual demand curve for a variable productive service? Explain with the help of a diagram. (12)

5. Discuss the arrow 's impossibility theorem. If the allocation is equitable then, can we say that the allocation is also fair ? (12)

6. "Labour exploitation is possible under monopsony." Is it possible to have such an exploitation under monopolistic competition also. Explain with diagram. (12)

7. Explain with examples the concept of public good. When does free rider problem arise? Explain with help of diagram the problem of lemons in the used car markets. (12)

[This question paper contains 12 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5238 **H**

Unique Paper Code : 2922101203

Name of the Paper : Statistics for Business Economics – I

Name of the Course : **B.A. (Hons.) Business Economics (2023)**

Semester : II

Duration : 3 Hour Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **all** questions. Choice is available within each question.
3. Use of simple calculator is allowed.
4. Required statistical tables are attached with this paper.

1. Attempt any **three** questions : (3×10=30)

(a) A sample of the daily earnings of a food vendor on a street outside a college was collected for 300 days. The distribution of earnings is as follows :

P.T.O.

Earning Range (Rs.):	100-200	200-250	250-300	300-400	400-600
No. of days:	40	60	50	70	80

(i) On what percentage of the days did the vendor earn less than Rs. 270?

(ii) Construct a histogram for the above data and comment on its symmetry.

(b) Given the following data: 15.0, 13.0, 18.0, 14.5, 12.0, 11.0, 8.9, 8.0

(i) Determine the values of the sample mean, sample median, 12.5% trimmed mean and compare these values.

(ii) How will the median change if the two observations 18.0 and 12.0 are changed to 20 and 14 respectively.

(c) A sample of 19 offshore oil workers took part in a simulated escape exercise, resulting in the accompanying data on time (sec) to complete the escape

5 10 55 60 70 75 85 85 90 90 92 94 94 95 98 100 115 125 190

(i) Construct a boxplot and comment on its features.

(ii) How large or small does an observation have to be to quality as an outlier? Are there any outliers in the sample? Any extreme outliers?

(d) (i) Pearson measure of Skewness for a distribution is 0.4 and coefficient of variation is 30%. Mode is 0.88. Find the mean and median of the distribution.

(ii) If $\sqrt{\beta_1} = 1$, $\beta_2 = 4$ and variance = 9, find the values of third and fourth central moments and comment upon the nature of the distribution

2. Attempt any **four** questions : (4×10=40)

(a) (i) If the probability that student A will fail a certain statistics examination is 0.5, the probability that student B will fail the examination is 0.2, and the probability that both student A and student B will fail the examination is 0.1, what is the probability that at least one of these two students will fail the examination.

(ii) If P(A) = 0.3, P(B) = 0.2 and $P(A \cap B) = 0.1$, determine the following probabilities :

(i) $P(A \cup B)$

(ii) $P(A' \cap B)$

(iii) $P(A \cap B')$

(iv) $P(A \cup B')$

(b) A joint probability mass function for discrete variable X and Y is as follows :

X ↓ \ Y →	10	20	30
5	0.1	0.05	0
6	0.15	0.25	0.05
7	0.05	0.2	0.15

Calculate

(i) E(X)

(ii) Variance of Y

(iii) Conditional distribution of X given that $Y \geq 20$.

(c) If the joint probability density of X and Y is given by

$$f(x) = \begin{cases} \frac{1}{4}(2x + y) & 0 < x < 1; 0 < y < 2 \\ 0 & otherwise \end{cases}$$

Find

(i) the marginal density of X and Y;

(ii) the conditional density of A given Y = 1.

(iii) Also determine whether the two random variables are independent.

(d) (i) If X is the random variable whose cdf is given by F(x) :

$$F(x) = \begin{cases} 0 & x < 0 \\ x + \frac{1}{2} & 0 \le x < \frac{1}{2} \\ 1 & x \ge \frac{1}{2} \end{cases}$$

Find

(i) $P\left(X \le \frac{1}{4}\right)$, (ii) $P\left(0 < X \le \frac{1}{4}\right)$,

(iii) $P(X = 0)$ (iv) $P\left(0 \le x \le \frac{1}{4}\right)$

(ii) If X is a continuous random variable with probability density function

$$f(x) = \begin{cases} \frac{x}{6} + K & 0 \le x \le 3 \\ 0 & otherwise \end{cases}$$

(i) Find the value of K and $P(1 \le X \le 2)$.

(e) (i) If the probability that an individual suffers a bad reaction from injection of a given serum is 0.001, determine the probability that out of 2000 individuals (a) exactly 3 and (b) more than 2 individuals will suffer a bad reaction.

(ii) 500 tubes manufactured by a company have a mean lifetime of 800 hrs and a standard deviation of 60 hrs. Assuming the distribution to be normally distributed, how many tubes will have a mean lifetime of (i) between 790 and 810 hrs, (ii) less than 785 hrs.

3. Attempt any **two** of the following : (2×5=10)

(a) (i) Write a brief note on the coefficient of correlation and its properties.

(ii) Find the coefficient of correlation from the following data and interpret its value :

X	10	6	9	12	13
Y	6	4	5	8	7

(b) Find the rank correlation between the two variables X and Y :

Marks	50	55	55	60	68	70	74	80
I.Q	90	110	95	105	120	125	115	118

(c) (i) The coefficient of correlation between two variables X and Y is 0.4 and their covariance is 10. If the variance of X series is 9, find the standard deviation of Y.

(ii) The correlation coefficient between two variables X and Y is found to be 0.4. What is the correlation between 2X and (–Y)?

4. Attempt any **two** questions : (2×5=10)

(a) The following are the index no.s of wholesale prices of a certain commodity :

Year	2012	2013	2014	2015	2016	2017
Index no.	100	118	128	156	220	260

(i) Shift the base to 2014 and obtain new index numbers.

(b) Splice the given two series as to make 'A' a continuous series,

(i) A = Old series and (ii) B = New series.

Year	A =Index (old series)	B = Index (new series)
2006	95	
2007	110	
2008	115	
2009	120	100
2010		104
2011		106
2012		112

(c) (i) The following tables give the annual income of a person and the general price index for the period 2015 to 2019. Prepare the index number to show real income of a person.

Year	Annual Income in Rs.	Price Index Number
2015	25000	100
2016	30000	120
2017	40000	145
2018	50000	160
2019	60000	200

(ii) The consumer price index over a certain period increased from 130 to 250 and wages of a worker increased from Rs. 1700 to Rs. 3100. What is the gain or loss to the worker?

Table A.1 Cumulative Binomial Probabilities *(cont.)*

e. $n = 25$

$$B(x; n, p) = \sum_{y=0}^{x} b(y; n, p)$$

	p														
x	0.01	0.05	0.10	0.20	0.25	0.30	0.40	0.50	0.60	0.70	0.75	0.80	0.90	0.95	0.99
0	.778	.277	.072	.004	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
1	.974	.642	.271	.027	.007	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000
2	.998	.873	.537	.098	.032	.009	.000	.000	.000	.000	.000	.000	.000	.000	.000
3	1.000	.966	.764	.234	.096	.033	.002	.000	.000	.000	.000	.000	.000	.000	.000
4	1.000	.993	.902	.421	.214	.090	.009	.000	.000	.000	.000	.000	.000	.000	.000
5	1.000	.999	.967	.617	.378	.193	.029	.002	.000	.000	.000	.000	.000	.000	.000
6	1.000	1.000	.991	.780	.561	.341	.074	.007	.000	.000	.000	.000	.000	.000	.000
7	1.000	1.000	.998	.891	.727	.512	.154	.022	.001	.000	.000	.000	.000	.000	.000
8	1.000	1.000	1.000	.953	.851	.677	.274	.054	.004	.000	.000	.000	.000	.000	.000
9	1.000	1.000	1.000	.983	.929	.811	.425	.115	.013	.000	.000	.000	.000	.000	.000
10	1.000	1.000	1.000	.994	.970	.902	.586	.212	.034	.002	.000	.000	.000	.000	.000
11	1.000	1.000	1.000	.998	.980	.956	.732	.345	.078	.006	.001	.000	.000	.000	.000
12	1.000	1.000	1.000	1.000	.997	.983	.846	.500	.154	.017	.003	.000	.000	.000	.000
13	1.000	1.000	1.000	1.000	.999	.994	.922	.655	.268	.044	.020	.002	.000	.000	.000
14	1.000	1.000	1.000	1.000	1.000	.998	.966	.788	.414	.098	.030	.006	.000	.000	.000
15	1.000	1.000	1.000	1.000	1.000	1.000	.987	.885	.575	.189	.071	.017	.000	.000	.000
16	1.000	1.000	1.000	1.000	1.000	1.000	.996	.946	.726	.323	.149	.047	.000	.000	.000
17	1.000	1.000	1.000	1.000	1.000	1.000	.999	.978	.846	.488	.273	.109	.002	.000	.000
18	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.993	.926	.659	.439	.220	.009	.000	.000
19	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.998	.971	.807	.622	.383	.033	.001	.000
20	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.991	.910	.786	.579	.098	.007	.000
21	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.998	.967	.904	.766	.236	.034	.000
22	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.991	.968	.902	.463	.127	.002
23	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.998	.993	.973	.729	.358	.026
24	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	.999	.996	.928	.723	.222

Table A.2 Cumulative Poisson Probabilities

$$F(x; \mu) = \sum_{y=0}^{x} \frac{e^{-\mu} \mu^{y}}{y!}$$

	μ									
x	.1	.2	.3	.4	.5	.6	.7	.8	.9	1.0
0	.905	.819	.741	.670	.607	.549	.497	.449	.407	.368
1	.995	.982	.963	.938	.910	.878	.844	.809	.772	.736
2	1.000	.999	.996	.992	.986	.977	.966	.953	.937	.920
3		1.000	1.000	.999	.998	.997	.994	.991	.987	.981
4				1.000	1.000	1.000	.999	.999	.998	.996
5							1.000	1.000	1.000	.999
6										1.000

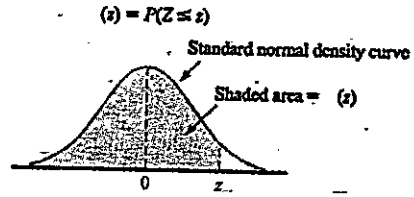
(continued)

Table A.2 Cumulative Poisson Probabilities *(cont.)*

$$F(x;\mu) = \sum_{y=0}^{x} \frac{e^{-\mu}\mu^{y}}{y!}$$

	μ										
x	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	15.0	20.0
0	.135	.050	.018	.007	.002	.001	.000	.000	.000	.000	.000
1	.406	.199	.092	.040	.017	.007	.003	.001	.000	.000	.000
2	.677	.423	.238	.125	.062	.030	.014	.006	.003	.000	.000
3	.857	.647	.433	.265	.151	.082	.042	.021	.010	.000	.000
4	.947	.815	.629	.440	.285	.173	.100	.055	.029	.001	.000
5	.983	.916	.785	.616	.446	.301	.191	.116	.067	.003	.000
6	.995	.966	.889	.762	.606	.450	.313	.207	.130	.008	.000
7	.999	.988	.949	.867	.744	.599	.453	.324	.220	.018	.001
8	1.000	.996	.979	.932	.847	.729	.593	.456	.333	.037	.002
9		.999	.992	.968	.916	.830	.717	.587	.458	.070	.005
10		1.000	.997	.986	.957	.901	.816	.706	.583	.118	.011
11			.999	.995	.980	.947	.888	.803	.697	.185	.021
12			1.000	.998	.991	.973	.936	.876	.792	.268	.039
13				.999	.996	.987	.966	.926	.864	.363	.066
14				1.000	.999	.994	.983	.959	.917	.466	.105
15					.999	.998	.992	.978	.951	.568	.157
16					1.000	.999	.996	.989	.973	.664	.221
17						1.000	.998	.995	.986	.749	.297
18							.999	.998	.993	.819	.381
19							1.000	.999	.997	.875	.470
20								1.000	.998	.917	.559
21									.999	.947	.644
22									1.000	.967	.721
23										.981	.787
24										.989	.843
25										.994	.888
26										.997	.922
27										.998	.948
28										.999	.966
29										1.000	.978
30											.987
31											.992
32											.995
33											.997
34											.999
35											.999
36											1.000

Table A.3 Standard Normal Curve Areas



z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
−3.4	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0003	.0002
−3.3	.0005	.0005	.0005	.0004	.0004	.0004	.0004	.0004	.0004	.0003
−3.2	.0007	.0007	.0006	.0006	.0006	.0006	.0006	.0005	.0005	.0005
−3.1	.0010	.0009	.0009	.0009	.0008	.0008	.0008	.0008	.0007	.0007
−3.0	.0013	.0013	.0013	.0012	.0012	.0011	.0011	.0011	.0010	.0010
−2.9	.0019	.0018	.0017	.0017	.0016	.0016	.0015	.0015	.0014	.0014
−2.8	.0026	.0025	.0024	.0023	.0023	.0022	.0021	.0021	.0020	.0019
−2.7	.0035	.0034	.0033	.0032	.0031	.0030	.0029	.0028	.0027	.0026
−2.6	.0047	.0045	.0044	.0043	.0041	.0040	.0039	.0038	.0037	.0036
−2.5	.0062	.0060	.0059	.0057	.0055	.0054	.0052	.0051	.0049	.0038
−2.4	.0082	.0080	.0078	.0075	.0073	.0071	.0069	.0068	.0066	.0064
−2.3	.0107	.0104	.0102	.0099	.0096	.0094	.0091	.0089	.0087	.0084
−2.2	.0139	.0136	.0132	.0129	.0125	.0122	.0119	.0116	.0113	.0110
−2.1	.0179	.0174	.0170	.0166	.0162	.0158	.0154	.0150	.0146	.0143
−2.0	.0228	.0222	.0217	.0212	.0207	.0202	.0197	.0192	.0188	.0183
−1.9	.0287	.0281	.0274	.0268	.0262	.0256	.0250	.0244	.0239	.0233
−1.8	.0359	.0352	.0344	.0336	.0329	.0322	.0314	.0307	.0301	.0294
−1.7	.0446	.0436	.0427	.0418	.0409	.0401	.0392	.0384	.0375	.0367
−1.6	.0548	.0537	.0526	.0516	.0505	.0495	.0485	.0475	.0465	.0455
−1.5	.0668	.0655	.0643	.0630	.0618	.0606	.0594	.0582	.0571	.0559
−1.4	.0808	.0793	.0778	.0764	.0749	.0735	.0722	.0708	.0694	.0681
−1.3	.0968	.0951	.0934	.0918	.0901	.0885	.0869	.0853	.0838	.0823
−1.2	.1151	.1131	.1112	.1093	.1075	.1056	.1038	.1020	.1003	.0985
−1.1	.1357	.1335	.1314	.1292	.1271	.1251	.1230	.1210	.1190	.1170
−1.0	.1587	.1562	.1539	.1515	.1492	.1469	.1446	.1423	.1401	.1379
−0.9	.1841	.1814	.1788	.1762	.1736	.1711	.1685	.1660	.1635	.1611
−0.8	.2119	.2090	.2061	.2033	.2005	.1977	.1949	.1922	.1894	.1867
−0.7	.2420	.2389	.2358	.2327	.2296	.2266	.2236	.2206	.2177	.2148
−0.6	.2743	.2709	.2676	.2643	.2611	.2578	.2546	.2514	.2483	.2451
−0.5	.3085	.3050	.3015	.2981	.2946	.2912	.2877	.2843	.2810	.2776
−0.4	.3446	.3409	.3372	.3336	.3300	.3264	.3228	.3192	.3156	.3121
−0.3	.3821	.3783	.3745	.3707	.3669	.3632	.3594	.3557	.3520	.3482
−0.2	.4207	.4168	.4129	.4090	.4052	.4013	.3974	.3936	.3897	.3859
−0.1	.4602	.4562	.4522	.4483	.4443	.4404	.4364	.4325	.4286	.4247
−0.0	.5000	.4960	.4920	.4880	.4840	.4801	.4761	.4721	.4681	.4641

(continued)

Table A.3 Standard Normal Curve Areas *(cont.)*

$\Phi(z) = P(Z \leq z)$

z	.00	.01	.02	.03	.04	.05	.06	.07	.08	.09
0.0	.5000	.5040	.5080	.5120	.5160	.5199	.5239	.5279	.5319	.5359
0.1	.5398	.5438	.5478	.5517	.5557	.5596	.5636	.5675	.5714	.5753
0.2	.5793	.5832	.5871	.5910	.5948	.5987	.6026	.6064	.6103	.6141
0.3	.6179	.6217	.6255	.6293	.6331	.6368	.6406	.6443	.6480	.6517
0.4	.6554	.6591	.6628	.6664	.6700	.6736	.6772	.6808	.6844	.6879
0.5	.6915	.6950	.6985	.7019	.7054	.7088	.7123	.7157	.7190	.7224
0.6	.7257	.7291	.7324	.7357	.7389	.7422	.7454	.7486	.7517	.7549
0.7	.7580	.7611	.7642	.7673	.7704	.7734	.7764	.7794	.7823	.7852
0.8	.7881	.7910	.7939	.7967	.7995	.8023	.8051	.8078	.8106	.8133
0.9	.8159	.8186	.8212	.8238	.8264	.8289	.8315	.8340	.8365	.8389
1.0	.8413	.8438	.8461	.8485	.8508	.8531	.8554	.8577	.8599	.8621
1.1	.8643	.8665	.8686	.8708	.8729	.8749	.8770	.8790	.8810	.8830
1.2	.8849	.8869	.8888	.8907	.8925	.8944	.8962	.8980	.8997	.9015
1.3	.9032	.9049	.9066	.9082	.9099	.9115	.9131	.9147	.9162	.9177
1.4	.9192	.9207	.9222	.9236	.9251	.9265	.9278	.9292	.9306	.9319
1.5	.9332	.9345	.9357	.9370	.9382	.9394	.9406	.9418	.9429	.9441
1.6	.9452	.9463	.9474	.9484	.9495	.9505	.9515	.9525	.9535	.9545
1.7	.9554	.9564	.9573	.9582	.9591	.9599	.9608	.9616	.9625	.9633
1.8	.9641	.9649	.9656	.9664	.9671	.9678	.9686	.9693	.9699	.9706
1.9	.9713	.9719	.9726	.9732	.9738	.9744	.9750	.9756	.9761	.9767
2.0	.9772	.9778	.9783	.9788	.9793	.9798	.9803	.9808	.9812	.9817
2.1	.9821	.9826	.9830	.9834	.9838	.9842	.9846	.9850	.9854	.9857
2.2	.9861	.9864	.9868	.9871	.9875	.9878	.9881	.9884	.9887	.9890
2.3	.9893	.9896	.9898	.9901	.9904	.9906	.9909	.9911	.9913	.9916
2.4	.9918	.9920	.9922	.9925	.9927	.9929	.9931	.9932	.9934	.9936
2.5	.9938	.9940	.9941	.9943	.9945	.9946	.9948	.9949	.9951	.9952
2.6	.9953	.9955	.9956	.9957	.9959	.9960	.9961	.9962	.9963	.9964
2.7	.9965	.9966	.9967	.9968	.9969	.9970	.9971	.9972	.9973	.9974
2.8	.9974	.9975	.9976	.9977	.9977	.9978	.9979	.9979	.9980	.9981
2.9	.9981	.9982	.9982	.9983	.9984	.9984	.9985	.9985	.9986	.9986
3.0	.9987	.9987	.9987	.9988	.9988	.9989	.9989	.9989	.9990	.9990
3.1	.9990	.9991	.9991	.9991	.9992	.9992	.9992	.9992	.9993	.9993
3.2	.9993	.9993	.9994	.9994	.9994	.9994	.9994	.9995	.9995	.9995
3.3	.9995	.9995	.9995	.9996	.9996	.9996	.9996	.9996	.9996	.9997
3.4	.9997	.9997	.9997	.9997	.9997	.9997	.9997	.9997	.9997	.9998

6. Write short notes on the following : (3×6)

(a) Types of advertising appeals

(b) New media options

(c) Methods of setting advertising budget

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5266 **H**

Unique Paper Code : 2923102004

Name of the Paper : Advertising Management

Name of the Course : **B.A. (Hons.) Business Economics (BBE).**

Semester : IV

Duration : 3 Hours Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **five** questions. **All** questions carry equal marks.

1. (a) Discuss the role of Integrated Marketing Communication in the launch of an online vegan food delivery platform in the Indian market. (10)

(b) An advertising campaign may have several objectives it seeks to fulfill by the process of communication with the customer. Enumerate some of the advertising objectives along with illustrations for each. (8)

2. Setu has started a new brand of clothing line for men and women. He has approached you to design an advertising plan for which you are to explain the relevance of the DAGMAR approach for setting objectives, situation analysis before planning any advertising, and the concept of consumer insight mining. (3×6)

3. (a) What are the primary factors that companies consider when establishing their brand's position in the market? Explain the process of brand positioning. (10)

(b) Through real-world examples spanning multiple industries, demonstrate how businesses leverage these different positioning elements to differentiate themselves and gain a competitive edge in the eyes of consumers. (8)

4. Creativity in advertising is all about making connections between seemingly unrelated concepts. Do you agree?

(a) Take any advertisement and connect the product with the message strategy, with the big idea, and with the target market. (10)

(b) Do you think the reason for the success of this advertisement lies in the above connections? Justify your answer. (8)

5. With reference to the factors influencing the selection of media, suggest which advertising medium/media and specific channels are best suited for advertising the following products. Justify your answer.

(i) A Café near your college. (9)

(ii) A cold supply chain for frozen food delivery service. (9)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5106 **H**

Unique Paper Code : 2922102401

Name of the Paper : Macroeconomics – II

Name of the Course : **B.A. (H) Business Economics**

Semester : IV

Duration : 3 Hours Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. All parts of each question must be done together.
3. Use diagrams wherever required.
4. Question no. **1** is compulsory.
5. Attempt **five** questions in all.

P.T.O.

1. State true or False **(any six)**. Also give explanation in support of your answer. (3×6)

   (i) In the medium run, output and the price level always return to the same value.

   (ii) In the late 1960s, the economists Milton Friedman and Edmund Phelps said that policy makers cannot reduce the rate of unemployment beyond a certain level.

   (iii) The unemployment rate tends to be high in recessions and low in expansions.

   (iv) Absolute PPP states that the domestic price level should equal the foreign price level times the spot exchange rates.

   (v) An increase in the expected price level leads to an increase in the nominal wage, in the same proportion.

   (vi) A reduction in the budget deficit initially causes a decline in output. However, with time, output eventually returns to its natural level.

   (vii) According to Keynes APC and income are directly related.

   (viii) MPK determines the real rental price of capital.

2. (a) Describe Franco Modigliani's life cycle hypothesis, outlining how individuals adjust their savings over their lifetime to manage consumption needs. (12)

   (b) What are the justifications for a firm to hold its inventories? (6)

3. 'The aggregate demand relation captures the effects of the price level on output while the aggregate supply relation captures the effects of output on the price level.' Explain the derivation of AS and AD relations in the medium run macroeconomic model. (18)

4. (a) Discuss the relation between inflation, anticipated inflation, and the rate of unemployment. (6)

   (b) When inflation is not very persistent expected inflation does not depend too much on past inflation. Discuss this statement with reference to Phillips curve. (12)

5. (a) Comment, how expectations of inflation are formed. How will this influence the adjustment path of interest rates to a change in money growth. (12)

(b) How does co-ordination problem explain wage stickiness? (6)

6. Determine the level of income and the exchange rate which satisfy equilibrium conditions both in goods market and in money market. (18)

[This question paper contains 8 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5166 **H**

Unique Paper Code : 2922102402

Name of the Paper : Statistics for Business Economics–II

Name of the Course : **B.A. (Hons.) Business Economics (2024)**

Semester : IV

Duration : 3 Hours Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **all** questions. Choice is available within each question.
3. Use of simple calculator is allowed.
4. Required statistical tables are attached with this paper.

P.T.O.

1. Attempt any **two** questions : (10×2=20)

(a) A certain brand of Sugar is sold in three packs: pack A costing Rs. 30, pack B costing Rs. 50 and pack C costing Rs 80. If 20% of all purchasers choose the pack A, 30% choose the pack B and 50% choose the pack C. Let X and Y denote the package sizes selected by two independently selected purchasers.

(i) Determine the sampling distribution of $\bar{X}$ and calculate $E(\bar{X})$.

(ii) Determine the sampling distribution of the sample variance S^2 and calculate $E(S^2)$.

(b) A random variable X is the number of packages being shipped by a randomly selected customer to a particular shipping facility. Forty five percent of times only a single package is shipped, 30% of times two packages are shipped and 25% of times three packages are shipped. If a sample of two customers is selected such that T_0 is the sample total number of packages shipped independently.

(i) Determine the sampling distribution of T_0.

(ii) Calculate $E(T_0)$ and relate it with the population total.

(c) (i) What is a point estimator? Distinguish between a point estimate and a point estimator? Discuss any three properties of a good point estimator.

(ii) Suppose certain type of fertilizer has an expected yield per acre of μ_1 with variance σ^2, whereas the expected yield for a second type of fertilizer is μ_2 with the same variance σ^2. Let s_1^2 and s_2^2 denote the sample variances of yields based on sample sizes n_1 and n_2 respectively, of the two fertilizers. Show that the pooled estimator

$$\hat{\sigma}^2 = \frac{(n_1-1)s_1^2 + (n_2-1)s_2^2}{n_1+n_2-2}$$

is an unbiased estimator of σ^2.

2. Attempt any **five** questions : (7×5=35)

(a) (i) What is meant by the terms 'parameter' and 'statistic'?

(ii) Consider a normal population distribution with the value of a known. What is the confidence level for the interval $(\bar{x} \pm 2.51\,\sigma/\sqrt{n})$ and $(\bar{x} \pm 1.44\,\sigma/\sqrt{n})$.

(b) The average heights of a random sample of 16 people from a city is 1.75 m with a standard deviation of 0.04 m. It is known that the heights of the population are random variables that follow a normal distribution.

(i) Determine the 95% confidence interval for the average height of the population.

(ii) With a confidence level of 90%, what would be the minimum sample size needed for the true mean of the heights to be within 2 cm from the sample mean?

(c) Extensive monitoring of a computer time-sharing system has suggested that response time to a particular editing command is normally distributed with standard deviation 30 millisec. A new operating system has been installed, and we wish to estimate the true average response time for the new environment. Assuming that response times are still normally distributed, what sample size is necessary to ensure that the resulting 90% CI has a width of 10? How should the sample size change if the width is to become half of its earlier value.

(d) A random sample of size 8 is taken from a normal population with $\bar{X} = 51$ and $s = 6$. Construct an upper one-sided 95% Confidence Interval for the mean. What will be the upper bound if the sample size was 49 instead?

(e) Construct a 94% confidence interval for the difference between the mean lifetimes of two kinds of light bulbs, given that a random sample of 40 light bulbs of the first kind lasted on the average 418 hours of continuous use and 50 light bulbs of the second kind lasted on the average 402 hours of continuous use. The population standard deviations are known to be $\sigma_1 = 26$ and $\sigma_2 = 22$.

(f) A sample standard deviation was 3.81 for a sample of 12 containers. Determine a 95% confidence interval for population standard deviation and population variance assuming normality.

3. Attempt any **five** questions : (7×5=35)

(a) Mean height of a certain population in a district is found to be normally distributed with a mean of 67 inches and standard deviation of 3 inches. A sample of 100 people, however have a mean height of 64 inches. Test the hypothesis that the mean height of the population has decreased overtime at 0.05 level of significance? Also find out the p-value of the test.

(b) Suppose that 100 high-performance tires made by a certain manufacturer lasted on the average 21,819 miles with a standard deviation of 1,295 miles. Test the null hypothesis $\mu = 22{,}000$ miles against the alternative hypothesis $\mu < 22{,}000$ miles at the 0.05 level of significance. Calculate the p–value?

(c) The mean yield of wheat from district A was 210 kg with standard deviation of 10 kg. per acre from a sample of 100 plots. In another district B, the mean yield was 220 kg. with Standard deviation of 12 kg from a sample of 120 plots. Assuming wheat yield to be normally distributed, test whether there is any significant difference between the mean yield of crops in the two districts. Also construct a 99% confidence interval for difference between mean yield of wheat from the two districts

(d) A test of the breaking strengths of 6 ropes manufactured by a company showed a mean breaking strength of 7750 lb and a standard deviation of 145 lb, whereas the manufacturer claimed a mean breaking strength of 8000 lb. Can we support the manufacturer's claim at a level of significance of (a) 0.01 (b) What is the p value of the test?

(e) The IQs (intelligence quotients) of 16 students from one area of a city showed a mean of 107 with a standard deviation of 10, while the IQs of 14 students from another area of the city showed a mean of 112 with a standard deviation of 8. Can we say that the IQ of the second city is higher at a (a) 0.01, (b) 0.05 level of significance?

(f) In the past the standard deviation of weights of certain 40.0 kg packages filled by a machine was 0.25 kg. A random sample of 20 packages showed a standard deviation of 0.32 kg. Is the apparent increase in variability significant at 0.05 level of significance?

[This question paper contains 3 printed pages.]

Your Roll No.....

Sr. No. of Question Paper	:	**7992**
Unique Paper Code	:	12481403
Name of the Paper	:	Marketing Management
Name of the Course	:	**B.A. (H) Business Economics 2024 (LOCF)**
Semester	:	IV
Duration	:	3 Hours
Maximum Marks	:	75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Read the instructions of each section carefully.

Section A

(Attempt any three questions)

1. What is Promotion mix? Discuss the factors affecting the promotion mix. (10)

2. Explain the market entry methods of pricing. (10)

3. What is meant by channel of distribution? Differentiate between wholesale and retail. (10)

P.T.O.

4. Write short notes on any two of the following clearly bringing out the important points: (5+5=10)

(a) Marketing myopia

(b) BCG Matrix

(c) Ethics in Marketing

Section B

(Attempt any three questions)

5. Realflower ltd. is planning to launch its range of perfumes in the Indian market. Advise the marketing manager on designing an appropriate segmentation strategy. (10)

6. Discuss Porter's model of competition in the context of toothpaste. Justify your answer with appropriate reasoning. (10)

7. As a leading organization in the laptop industry, Lavon Laptop Ltd. is planning to introduce its new line of designer look laptops exclusively for its elite clientele. Discuss the promotion strategy to be adopted by the company. Justify your answer with appropriate reasoning. (10)

8. Discuss the steps in marketing research which Alliance Car manufacturing should adopt before launching a new model in the Indian market. (10)

Section C

(The question below is compulsory)

9. Read the case study below and answer the following question.

OTT also known as Over-The-Top platforms are the content providers growing exponentially as more people switch to online channels for entertainment. Most OTT platforms generally offer some content for free and charge a monthly subscription fee for premium content which is generally unavailable elsewhere. There are currently about 57 providers of **over-the-top media services (OTT) in India,** which distribute streaming media or Video on demand over the Internet. In fiscal year 2018, the OTT market in India was worth 2,150 crore. The streaming market in India is predicted to be worth $15 billion by 2030. Theatres have long been a great source of entertainment. Also, now with the rise of digital world, OTT platforms are becoming more popular.

(a) Explain the concept of Product Life Cycle and its utility for marketers? (7)

(b) Giving reasons identify what stage of its Product Life Cycle OTT platforms are in the Indian market and discuss the marketing strategies that may be used in the identified stage. (8)

(100)

Set A

S. No. of Q. Paper : 8204

Unique Paper Code : 12483303

Name of the Course	:	**B.A. (H) Business Economics, 2024**
Name of the Paper	:	**Research Methods and Statistical Packages (SEC) (CBCS)**
Semester	:	**IV**
Maximum Marks	:	**75**
Duration	:	**03 Hours**

Instructions:

- *Attempt any five questions*
- *All questions carry equal marks.*
- *Use of simple calculator and statistical tables is allowed.*

Q 1 (a) A nutritionist is investigating the impact of two different diet plans on body weight. They have 10 participants who follow Diet Plan A for a month, and after a short break, the same participants follow Diet Plan B for another month. To minimize potential order effects, each participant randomly starts with either Diet Plan A or B. The nutritionist aims to find out if there is a significant difference in weight loss between the two diet plans.

You are required to: (i) Define the Null and Alternate Hypothesis. (ii)Identify which statistical test should be used for hypothesis testing in SPSS, and describe the steps to perform this test. (iii) Explain how to interpret the results to decide whether the hypothesis should be accepted or rejected.

(6 marks)

(b) Differentiate between exploratory and conclusive research design.

(4 marks)

(c) Describe the steps involved in a Research Process? (5 marks)

Q2 (a) A study conducted in 2020 found that in a city, 50% of households have no pets, 30% have one pet, 15% have two pets, and 5% have three or more pets. You decide to conduct your own survey in the same city and find the following from 200 households: 90 have no pets, 60 have one pet, 40 have two pets, and 10 have three or more pets. Determine whether your survey data supports the study's findings at a 0.05 significance level.

(8 marks)

(b) What is sampling? Explain the concept of "stratified sampling" and how it differs from "simple random sampling". Additionally, discuss the advantages of using stratified sampling over other sampling methods. Furthermore, delineate the distinctions between systematic errors and random errors in the context of statistical analysis. (7 marks)

3 (a) A researcher wants to study whether there is a relationship between gender (Male, Female) and preferred learning style (Visual, Auditory, Kinesthetic) among high school students. The researcher surveyed 300 students, and the results were tabulated as follows:

Gender / Learning Style		Visual	Auditory	Kinesthetic	Total
Male		50	40	60	150
Female		70	60	20	150
Total		120	100	80	300

Apply the appropriate test to determine if there is a significant relationship between gender and preferred learning style at a 0.05 significance level.

(10 marks)

(b) Given two data series: "sample-type" and "Score," where "sample-type" includes three categories: Answer the following :

(i) Identify the suitable statistical test for comparing the mean scores across the three types of samples. (1 mark)

(ii) Describe the assumptions that must be verified before applying this test. (2 marks)

(iii) If the assumptions are not met, which non-parametric test should be applied instead?

(2 marks)

4. Answer the following questions based on table 1, 2 and 3.

(i) Write the regression equation for the proposed model and comment on the goodness of fit.

(ii) Is the overall model significant? Explain how will you test it from the output given below? Write the proper hypothesis.

(iii) Check for the presence of autocorrelation in the model.

(iv) What is the difference between the standardized and unstandardized coefficients? Why don't we have the standardized coefficient for the intercept term?

(v) How do we interpret the scatterplot?

(5*3=15 marks)

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.484[a]	.234	.227	1.84180	1.891

a. Predictors: (Constant), engage, interest, anxiety, mastery

b. Dependent Variable: achieve

Table 2: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	435.512	4	108.878	32.096	.000[b]
	Residual	1424.742	420	3.392		
	Total	1860.253	424			

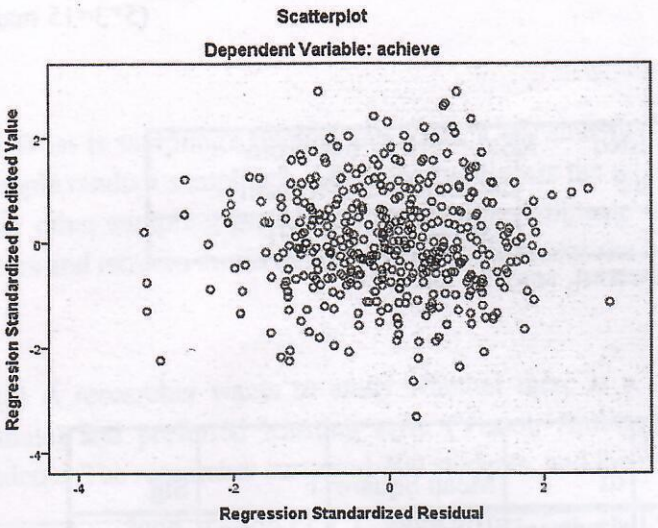
a. Dependent Variable: achieve

b. Predictors: (Constant), engage, interest, anxiety, mastery

Table 3:Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	32.112	2.397		13.395	.000
	anxiety	-.095	.028	-.155	-3.372	.001
	mastery	.070	.023	.147	3.066	.002
	interest	.047	.028	.078	1.689	.092
	engage	.144	.023	.298	6.331	.000

a. Dependent Variable: achieve



5. Write short notes on any three

(a) Reliability and Validity of a research instrument
(b) Cross-Sectional vs. Longitudinal Studies
(c) Shapiro-Wilk test
(d) Type I and Type II Error
(e) Primary data and secondary data (5*3 marks)

6. (a) Construct a 10 item Likert and Semantic Differential scale to measure the student perception about the higher education institute they are studying in. You may include various dimensions like teaching, infrastructure, administration, facilities etc. Make sure that the 10 items under each format correspond to the same 10 dimensions. (10)

(b) What are the various methods available for conducting primary research? Discuss these methods with suitable examples. (5)

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper	:	**7989**
Unique Paper Code	:	12481401
Name of the Paper	:	Macroerconomics & Applications II (LOCF) -6.2
Name of the Course	:	**B.A. (H) Business Economics, 2024**
Semester	:	IV
Duration	:	3 Hours
Maximum Marks	:	75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. All parts of each question must be done together.
3. Attempt **FIVE** questions.

1. Describe the consumption puzzle. How did the Life-Cycle Hypothesis and the Permanent-Income Hypothesis solve the consumption puzzle? (15)

2. (a) Discuss the impact of contractionary fiscal and contractionary monetary policy on aggregate output, exchange rate, trade balance of a small open economy under fixed exchange rate system using suitable diagrams. State the assumptions made clearly. (8)

   (b) According to Mundell Fleming Model, explain the impact of increase in risk premium for a country under floating exchange rate. (7)

3. Explain the steady state with technological progress in Solow model. Also, discuss the difference between Solow model and Endogenous Growth Model. (15)

P.T.O.

4. (a) Describe the neoclassical investment model and outline the circumstances in which companies consider it advantageous to increase their capital assets. (9)

(b) What is meant by Tobin's q? Elucidate its relation with investment. (6)

5. (a) Describe how the exchange rate and balance of payments are influenced by the demand for and supply of foreign exchange. Use a relevant diagram to illustrate your explanation. (9)

(b) What does the term J-curve effect refer to, and how can this phenomenon be explained? (6)

6. (a) In the absence of technological progress describe how the economy can achieve a golden rule steady state in cases where there is either insufficient capital or an excess of capital. (8)

(b) Describe the concept of steady state in the Solow Model with the inclusion of technological progress. (7)

7. (a) Explain the Government budget Constraint. If government spending is unchanged, a decrease in taxes must eventually be offset by an increase in taxes in the future. Comment. (10)

(b) Explain why wars typically bring about large budget deficits. (5)

8. Write short notes on any two of the following: (7.5+7.5)

(i) Accelerator Model of Inventory investment.

(ii) Intertemporal Choice model.

(iii) Purchasing power parity (PPP).

Your Roll No.....

Serial No. of Question Paper	**: 8205A**
Unique Paper Code	: 12481402
Name of the Paper	: Basic Econometrics
Name of the Course	: B.A. (H) Business Economics
Semester	: IV
Duration	: 3 Hours
Maximum Marks	: 75

Instructions for candidates:

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **Five** questions in all. Question no.1 is compulsory.
3. Use of Non-Scientific Calculator and mathematical tables is permitted.

1. Comment whether the following statements are **true or false.** Give reason or explanation for the same in **2-3 sentences (Attempt any five)** **(3x5=15)**

   a) In Ordinary Least Squares, the attempt is to minimize the sum of the residuals.
   b) To avoid dummy variable trap, the number of dummies should be one more than the number of categories of a qualitative variable.
   c) Heteroscedasticity is a common problem in time series data.
   d) Value of R^2 is always less than the value of adjusted R^2.
   e) Testing the slope coefficients in a regression model is same as testing the overall significance of the model
   f) One of the assumptions of CLRM is that both the parameters and the disturbance term must be normally distributed
   g) In the presence of multicollinearity, the OLS estimators continue to be BLUE.

2. (a) How will you determine whether a new variable should be added to the regression model or not. Elaborate on the steps involved. (10)

   (b) How will you prove that the Ordinary Least Squared Estimators are unbiased? (5)

3. (a) What do you mean by the problem of Autocorrelation? Why does it occur? What are the consequences of autocorrelation on the OLS estimators.

   (b) Discuss any two methods that can help detect autocorrelation.

   (c) Discuss any two remedies available to deal with the problem of autocorrelation. (5,5,5)

4. The following demand equation was estimated on a monthly time-series of mineral water consumption (n = 60). The estimated parameters are in the equation, and their appropriately estimated standard error below in parentheses.

$$\log(Q_t) = 1.5 - 0.75 \log(P_t) + 0.25 \log(P_{1t}) + u_t$$

SE (0.20) (0.10) (0.20)

where Q_t is the demand for mineral water in million gallons, P_t is its price, and P_{1t} is the price of soda beverage like Coca-Cola .

(a) What kind of model is it? (1)

(b) State whether mineral water and other soda beverages are substitutes or complimentary goods? Why do you say so? (2)

(c) Interpret the coefficients of the model? (2)

(d) Test whether the demand for mineral water is price-elastic? (3)

(e) Is the price of soda beverage significantly impacting the demand for mineral water? Conduct a test of hypothesis. (3)

(f) The DW value was reported as 0.86 and the R^2 as 0.435. Test for auto correlation and the overall significance of model. (4)

5. (a) Consider the population regression of Earnings of an employee against two categorical variables: the worker's marital status (D_{1i}, where $D_{1i} = 1$ if the i-th person is married else 0) and the worker's gender (D_{2i} where $D_2i = 1$ if the i-th person is female else 0),

   i. What are such models called? (1)

   ii. Construct a regression function incorporating the dummy variables and interpret the coefficients. (3)

   iii. If the researcher also wanted to measure the impact of the years of experience on the employee earnings, how would he include this variable? Show it with the new regression equation. (2)

   iv. Is it possible to measure some interaction effects by modifying the regression equation. If yes, please elucidate. (2)

   v. What is the newly formed model as in part (iii) called? How is it different from the model in part (i). (2)

(b) Illustrate how will you detect multicollinearity in a model. What are the likely consequences if the problem is left un treated? (5)

6. Write short notes on any three of the following: (5x3=15)

   i. Reciprocal models

   ii. Regression Model through the origin

   iii. Regression on standardized variables

   iv. Population Regression Function.

   v. Consistency property of Least Squares Estimators

*****

companies have so far proved insufficient. However, it's unclear whether Musk's approach will truly result in an "everything" app, whether such an app would receive regulatory approval, and whether X will remain sustainable as a social media platform.

Read the above case study on Twitter and answer the following questions

(i) Attempt a SWOT analysis for Musk. (6)

(ii) Discuss the importance of scanning marketing environment in context of Twitter. (6)

(iii) What are the characteristics of services as distinct from products. (6)

[This question paper contains 12 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5212 **H**

Unique Paper Code : 2922102403

Name of the Paper : Marketing Management

Name of the Course : **B.A. (Hons.) Business Economics (BBE)**

Semester : IV

Duration : 3 Hours Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Read the instructions of each section carefully.
3. Attempt **two** questions each from **Section A** and **Section B**.
4. **Section C** is compulsory.

Section A

(Attempt any **TWO** *questions)*

1. The five forces of Porter's Model measure competitiveness of a market. Discuss the model in the context of the soft drink market. (18)

2. "All products pass through all stages of life cycle and there is no relevance of different strategies for different stages of life cycle." Comment on the statement with suitable example. (18)

3. Write short notes on the following : (18)

   (a) Points of Parity vs. Points of Difference

   (b) Psychological Pricing

   (c) BCG Matrix

Section B

(Attempt any **TWO** *questions)*

1. Aveda Chemicals, Nagpur based sole propriety unit, has developed a new onion based ayurvedic hair oil. The product is helpful in treating hair damage and

about how many of his changes have made the platform a less reliable information resource. One accusation of misinformation is related to the Israel-Hamas War. European regulators issued a warning to Musk and insisted that he respond with how he is battling illegal misinformation on the website. Musk has claimed to be a "free speech absolutist" in the past, but some of his decisions have had the effect of throttling posts critical of him and the changes to the platform. Criticisms of X under Musk include concerns that hate speech and violence has been more likely to spread, especially with Musk's move to change how the "block" and "mute" functions work. He has been accused of enabling cyber bullying by changing how these functions work.

A look ahead

Once an iconic online social media brand, Twitter has been replaced entirely by X. At issue is whether the website will viewed as an unvetted "town square" or source of reliable information. Attempts to replicate Twitter and provide the same level of service by other

Facebook platforms. Fleets failed to catch on with users, and the feature was discontinued in August 2021.

- **Spaces.** In May 2021 Twitter introduced Spaces, in which accounts with more than 600 followers could host live audio conversations.

- **Dorsey steps down.** In November 2021, Dorsey stepped down as CEO again and was replaced by chief technology officer Parag Agrawal.

Controversy during the Musk era

After the acquisition, Musk disbanded Twitter's content-moderation body and reinstated many banned accounts, most notably that of former U.S. President Donald Trump, who had been suspended after the U.S. Capitol attack on January 6, 2021. Advertising revenue fell sharply as many companies withdrew their ads from the platform, which has been completely rebranded to erase the previous branding related to Twitter. "Tweets" are now referred to as "posts." In 2023, X and Musk became embroiled in controversy

hair fall. All formalities including packaging, labelling and branding have been completed. Mr. Abhinav Gambhir, the promoter of the firm, is planning to launch the product in Maharashtra. What basis would Mr. Gambhir consider to segment the market? How would he identify the segment to target? Design a suitable advertising programme for Aveda Chemicals and also suggest suitable sales promotion tools for its product. (18)

2. Lenskart, the Indian optical prescription eyewear retail chain, has launched Aqualens - a new contact lens brand. It includes a top-quality lens and a varied product range at an attractive price range. What elements of the promotion mix will you adopt for the brand promotion of Aqualens. Create a detailed Promotion mix for the same. (18)

3. Ajay was appointed as the marketing head of Alfa Enterprise, a manufacturer of toothpastes and toothbrushes. His target sale was 2000 units a month. Apart from thinking about various channels of distribution to achieve the target, he himself started

visiting schools in backward areas. He found that even after taking various steps and counselling, some school children had not started brushing their teeth. He investigated and found that they could not start brushing their teeth. He investigated and found that they could not afford to buy toothbrush and toothpaste. So with due permission, he started donating 200 toothbrushes and toothpastes every month to the school.

(i) Identity the channel of distribution Ajay would adopt for the distribution of toothpaste and toothbrushes and justify it by giving one reason. (10)

(ii) State any two values which Ajay wants to communicate to society. (8)

Section C

(The question below is COMPULSORY)

5. Read the case study below and attempt the questions following it :

were ordered by time) with an algorithmic timeline in which tweets that were popular on the service, or even tweets that were liked by the people a user followed, would appear first.

- **Profitability.** Twitter finally became profitable in the final quarter of 2017, when it had 330 million monthly users. Twitter would post positive earnings in only two of its eight years as a publicly held company.
- **Character count.** The character limit of a tweet was increased from 140 to 280 characters in 2017.
- **mDAUs.** Early in 2019, Twitter switched from tracking monthly users to "monetizable daily active users," the number of users in a day who were exposed to ads.
- **Stories-killer?** Fleets, added in November 2020, were collections of tweets and other content that were designed to vanish within 24 hours, much like Stories on the social networks **Snapchat** (SNAP) and **Meta's** (META) Instagram and

tweet. In November, its initial public offering (IPO) raised $1.8 billion, giving it a market capitalization of $31 billion. Twitter traded under the ticker symbol TWTR.

Some notable events while Twitter was a public company included :

- **Dorsey, redux.** In October 2015, Jack Dorsey returned as CEO. Twitter had continued to grow in popularity, but it had still not become profitable, so the company added other features in an effort to increase user interaction.

- **Moments.** Twitter added a new feature, **Moments,** in October 2015, allowing users and the service to create curated thematic collections of tweets and other content. (Moments would be replaced in 2017 with **Explore,** in which trending subjects including Moments were collected, but that feature was also short-lived.)

- **Content feed algorithm.** In March 2016, Twitter replaced its chronological timeline (in which tweets

In April 2022, a filing with the Securities and Exchange Commission expressed the intent for Twitter to merge with one of Musk's corporate entities, X Holdings. After Musk completed the deal to acquire Twitter in October 2022, he took steps to merge Twitter with X and rebrand the company.

However, Musk used a different company, X Corp., which he registered in Nevada in March 2023, to merge with Twitter. He also registered two other companies in Nevada in the same month: X Holdings Corp. (the new parent of X Corp.) and X.AI Corp. The merger between Twitter and X Corp. took place in April 2023. In a court filing in California in early April 2023, it became clear that Twitter, as a company, "no longer exists."

Today, X is primarily run as a social media platform, although Musk has expressed an interest in making it an "everything app," including for financial transactions, similar to China's WeChat.

P.T.O.

2009-2013: From novelty to news source

Twitter's social networking roots were obvious in April 2009, when actor Ashton Kutcher emerged as the victor in a race with CNN to become the first Twitter user to collect more than a million followers. Although celebrity "e-watching" remained a significant draw to the service, businesses soon began sending tweets about promotions and events. Political campaigns discovered the value of Twitter as a communication tool.

- The 2008 U.S. presidential election saw Barack Obama dominate his opponent, John McCain, in the social media sphere, amassing almost four times as many Myspace friends and more than 20 times as many Twitter followers. This development ensured that future candidates would include a social networking presence in their media strategies.

- On January 15, 2009, a tweet by commuter ferry passenger Janis Krums broke the story of the successful water landing of US Airways flight 1549

on the Hudson River in New York City. A hastily snapped camera phone image of passengers disembarking the half-submerged aircraft established the platform as breaking news so.

- Following the earthquake that struck Haiti in January 2010, Twitter reaffirmed its role as a powerful tool for the dissemination of information. It became an effective fundraising platform when the Red Cross launched a mobile giving campaign that surpassed all expectations.

- In 2009, Twitter also introduced a verification badge—a blue check mark—for accounts of famous people. St. Louis Cardinals manager Tony La Russa had sued Twitter over a parody account, and in response, Twitter announced that it would verify accounts of government agencies, public officials, and celebrities.

2013-2023: Twitter as a public company

In September 2013, Twitter filed to become a public company. It announced the news to the public in a

5

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 7993

Unique Paper code : 12481601

Name of the Paper : International Economics

Name of the Course : **B. A. (Hons.) Business Economics, 2024 (LOCF)**

Semester : VI

Duration : 3 Hours

Maximum Marks : 75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Illustrate your answer with suitable diagram, wherever required.
3. Attempt any Five question.

1. (a) Discuss briefly various TERMS of Trade. What are the reasons for secular deterioration of terms of trade for developing countries.

P.T.O.

(b) How does the production possibility frontier look under constant opportunity costs? What is the relationship between the opportunity cost of a commodity and the relative price of that commodity? How can they be visualized graphically? (7,8)

2. (a) How does the Heckscher-Ohlin model explain the direction and nature of international trade based on countries' factor endowments, and what role do these endowments play in determining a country's comparative advantage in the global market?

(b) Explain any one: (i) Leontief Paradox (ii) Factor Intensity Reversal. (8, 7)

3. (a) What is the difference between a nominal tariff and an effective tariff? What is the usefulness of the concept of effective protection? How is the rate of effective protection measured?

(b) What does the term "protection cost" or "deadweight loss" associated with a tariff signify, and what methods are employed to quantify it? (7, 8)

4. (a) Reflect on the policy implications of your analysis for countries considering joining or forming a customs union. What factors should these countries

consider to ensure that the benefits of trade creation outweigh the costs associated with trade diversion?

(b) Discuss briefly the various non-tariff barrier. (7, 8)

5. (a) What is meant by economies of scale? How can they be the basis for international trade? What is meant by the new international economies of scale?

(b) What is meant by import substitution and by export-oriented policies of development? What are the advantages and disadvantages of each as a method of industrialization for developing nations? (7, 8)

6. (a) How trade is regarded as an engine of growth?

(b) Discuss the basic feature of IMF and World Bank and its role in transforming the world economy. (7, 8)

7. Write Short notes on any three:

(i) Comparative Cost Theory

(ii) WTO Agreement on Agriculture

(iii) Optimum Tariff

(iv) Intra-industry trade

(v) Technological Gap Model and trade (5 * 3=15)

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper	:	**7994**
Unique Paper Code	:	12481602
Name of the Paper	:	Legal Aspects of Business
Name of the Course	:	**B.A. (Hons.) Business Economics 2024, (LOCF)**
Semester	:	VI
Duration	:	3 Hours
Maximum Marks	:	75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **All** questions.
3. The sub parts of a questions must be done together.

1. (i) What is meant by quantum meruit? Under what circumstances a claim for quantum meruit can arise. (10)

   (ii) Consensus-ad- idem' is the basic requirement of an agreement. Does a contract result when the consent to such consensus is not free? Discuss. What are the legal consequences under such circumstances? (5)

OR

(i) A minor lends Rs. 10,000 against a promissory note executed in his favour. Is the borrower liable to repay the money? Discuss. Explain the provisions of law relating to minor's agreements in detail. (10)

(ii) Distinguish between Fraud and Misrepresentation. (5)

P.T.O.

2. 'There are various rights available to an unpaid seller under the provisions of the Sales of Goods Act, 1930.' Explain. (10)

OR

State the Doctrine of Caveat Emptor and explain the exceptions to it. (10)

3. Write short notes on any three of the following (5+5+5)

(a) Types of Resolutions

(b) One person company

(c) Separate Legal Entity

(d) Extra Ordinary General Meeting

OR

(i) Discuss the provisions of the Companies Act, 2013 relating to One Person Company. (10)

(ii) Explain the doctrine of 'Indoor Management'. Are there any exceptions to the rule? (5)

4. (i) What do you mean by a complaint and who can file it under the Consumer Protection Act, 2019? Discuss the timeframe available and the grounds under which a complaint can be filed under the said Act. (10)

(ii) Describe the provisions of law during with prohibition of anti-competitive agreements under the Competition Act, 2002. (10)

OR

(ii) Describe the provisions of the Competition Act, 2002 relating to the establishment and composition of the competition commission including resignation, removal and suspension.

5. Write short notes on **any three** of the following (5+5+5)

(i) Presumption of undue-influence

(ii) Procedure for registration of trademarks

(iii) Objectives of Patent Act 1970

(iv) Inspection and cancellation of registered designs

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper	:	**7998**
Unique Paper Code	:	12487911
Name of the Paper	:	Indian Financial System
Name of the Course	:	**B.A. (Hons.) Business Economics 2024 LOCF**
Semester	:	VI
Duration	:	3 Hour
Maximum Marks	:	75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. This paper contains **6** questions.
3. Attempt **ANY FIVE** questions.
4. **All** questions carry equal marks.
5. Use of simple calculator is permitted.

1. (a) 'There is a strong relation between the economic activity and the financial market of the economy.' Explain this statement in context of the role of the financial markets in the economy.

   (b) Evaluate the pros and cons of employing both the free float methodology and the full float methodology in the construction of stock indices to assess stock market performance. (8,7)

2. (a) SOM Ltd intends to raise Rs. 650 crores by issuing shares of Rs. 10 each. The company appointed a Merchant Banker who has approached the investing public to help him in building a book in a price band of Rs. 100-120 per share. Assuming there are only five investors applying for the Company's share and following are the quotes:

P.T.O.

Investor	Price Quoted	Amount of Investment (Rs in crores)
A	100	250
B	105	180
C	110	260
D	115	220
E	120	210

Calculate: (i) The price at which merchant banker will issue the shares of the company to investors, (ii) The allotment value (in Rs) of each investor.

OR

(a) What are the key considerations for entrepreneurs seeking venture capital funding, and how does the venture capital process differ from traditional financing methods?

(b) What is reverse book building? How does it facilitate the process of delisting a company from the stock exchange? (8,7)

3. (a) Let three scripts J, K and L constitute the Stock Index with the number of outstanding shares of each being 250, 600 and 500 respectively. The base period prices of three scripts are Rs. 35, Rs. 62 and Rs. 45 respectively while their current prices are J Rs. 112, K Rs. 137 and L Rs.217 and the index in the base period was put at 10. Determine the impact on the index if company K issues a right in the ratio of 3:1 to its shareholders. Apply S & P methodology.

(b) Discuss the impact of recent financial scams such as the Ketan Parekh scandal on the Indian financial system, and outline the measures taken to prevent similar incidents in the future.

OR

(b) How do corporate actions such as rights issues, bonus issues, and stock splits impact market sentiment for both bullish and bearish trends in the stock market? Explain with examples. (8,7)

4. (a) What are repos? State the different types of Repos. How does the RBI use Repos as a tool for managing liquidity in money market?

(b) Paytm bank RBI Ban: Indian fintech is fast, furious and fraudulent? Explain. (8,7)

5. Determine whether the home loan borrower should take loan amount on fixed rate or floating rate if the following information is available :

Amount of a loan – 30,00,000

Duration of loan: 10 years and loan to be paid on annual basis.

The term for the interest is fixed rate of interest: 8% per annum OR floating rate of interest which is presently at 7% per annum. After four years, the floating rate is expected to rise to 8% per annum and corresponding fixed rate shall be 9%. Also there is a probability that if this happen, then floating rate is expected to rise further in subsequent years. The borrower now decided to switch from floating to fixed rate. The cost of switching from floating to fixed is 2% of the outstanding amount and interest is compounded on annual basis. Which option should he choose? (15)

6. Write short notes on any **three** of the following :

(a) Rolling settlement

(b) BASEL III norms in India

(c) Commercial Bills

(d) Role SEBI in Indian Financial System (5,5,5)

03/06/2024

(400)

[This question paper contains 2 printed pages.]

Your Roll No.....

Sr. No. of Question Paper	:	**8000A**
Unique Paper Code	:	12487915
Name of the Paper	:	New Venture Planning & Implementation
Name of the Course	:	**B.A. (H) Business Economics 2024**
Semester	:	VI
Duration	:	3 Hours
Maximum Marks	:	75

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt **any five** question.
3. All question carry equal marks.

1. (a) Describe Project life cycle in detail. (6)

   (b) Briefly explain the concept of Entrepreneurial Creative Ideation (ECI). Describe the various characteristics of creative people. (3+6)

2. (a) What do you understand by technical feasibility analysis? Describe the diffusion model offered by technology adoption life cycle. (3+6)

   (b) What are the various techniques of demand forecasting? (6)

3. (a) What is the scope for entrepreneurship in India? Describe the initiatives provided by Indian Government to promote the Startups in the country? (3+6)

P.T.O.

(b) What are the conventional and unconventional funding options for a new venture? (6)

4. (a) What do you understand by sensitivity analysis? Briefly explain the techniques of risk analysis. (3+6)

(b) A bag designer is willing to set up a manufacturing unit in the outskirts of Delhi. The project proposes to set up the manufacturing unit with the production capacity of 20,000 units. As per the market analysis, the product can be sold for Rs. 500 per unit. The technical analysis estimates the fixed cost of Rs. 12,00,000 and the variable cost of Rs. 400 per unit. Calculate and graphically represent the break-even point. (6)

5. Provide a detailed explanation of the various discounting and non-discounting techniques considered while taking an investment decision. (15)

6. Write short notes on **any three** of the following: (5 Marks each)

(a) Techniques to enhance creativity.

(b) Traits of an entrepreneur.

(c) Environment impact assessment.

(d) Financial feasibility analysis.

05/6/24 (M)