

Roll Number: \_\_\_\_\_

**Thapar Institute of Engineering & Technology, Patiala**  
**(Deemed University)**

School of Humanities & Social Sciences

Auxiliary Exam Examination-2023

Auxiliary Exam

Course Code: UHU-005

Course Name: Humanities for  
Engineers

27<sup>th</sup> August 2023

Day and Time: Saturday, 5:30 Pm

Time: 3Hours, M. Marks: 100

Name of Faculty: A. Sharma

**Instructions:**

- Attempt any five questions. Assume missing data (if any)
- Specify the question attempted and page number on the first page of the answer sheet.

Q.1	Briefly explain three ego states under Transactional Analysis. Add examples, if any.	[10]																
Q.2	Discuss Emotional Intelligence and How Emotional Intelligence is important in professional activities with example.	[10]																
Q.3	<p>(a) Describe the equilibrium condition of the perfectly competitive industry in the very long run, long run and short run.</p> <p>(b) The total cost function of a perfectly competitive firm is given in the following schedule:</p> <table><tr><th>Output Units</th><th>Total Cost (in INR)</th></tr><tr><td>0</td><td>50</td></tr><tr><td>10</td><td>120</td></tr><tr><td>20</td><td>170</td></tr><tr><td>30</td><td>210</td></tr><tr><td>40</td><td>260</td></tr><tr><td>50</td><td>330</td></tr><tr><td>60</td><td>430</td></tr></table> <p>The prevailing market price is Rs. 7 per unit. Find out the firm's profit maximizing output level?</p>	Output Units	Total Cost (in INR)	0	50	10	120	20	170	30	210	40	260	50	330	60	430	[10]
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Q. 4	<p>(i) The Total Cost function for a monopolist is given by the equation <math>TC = 900 + 40Q^2</math>. The demand function for the good produced by the monopolist is given by <math>2Q = 48 - 0.08P</math>. What is the profit maximizing price for the monopolist?</p> <p>(ii) There are 100 firms, with identical cost functions, in a perfectly competitive industry. The demand function for the industry is estimated to be <math>Q_d = 2000 - 200P</math>. If the cost function of a firm is <math>TC = 200 - 50Q + 2Q^2</math>, what will be the equilibrium price of the product ?</p>	[2+4+4]																
Q. 5	<p>(a) Define the meaning of demand in economics. Also discuss the various factors determining demand for a product.</p> <p>(b) Explain the law of supply. Distinguish between change in quantity supplied and change in supply.</p> <p>(c) The total cost equation of a firm is given by the equation where <math>TC</math> is total cost and <math>Q</math> is the level of output.</p> $TC = 5,000 + 2,000Q - 10Q^2 + 0.25Q^3$	[2*5=10]																