



SCAN ME

SCHOOL OF MECHANICAL ENGINEERING**CONTINUOUS ASSESSMENT TEST – I - WINTER SEMESTER 2019-2020**

Programme Name & Branch:

Course Name Code: MEE 1014

Course Name: Industrial Engineering and Management

Faculty Name(s): Dr.S.Aravind Raj Slot: F1+TF1

Class Number(s): VL2019205002398 Exam Duration: 90 mins Maximum Marks: 50

General instruction(s):**Answer all the questions**

Answer all the questions

SNo.	Question	Course Outcome (CO)																																								
1.	List and sketch types of price elasticity of demand (5 Marks)	1																																								
2.	<p>Estimate the forecast sales for up to 13th month for the following data using,</p> <p>(i) 6 month weighted moving average method, (Assume weights, 0.3, 0.2, 0.2, 0.1, 0.1, 0.1)</p> <p>(ii) Exponential smoothing forecast with $\alpha = 0.15$,</p> <p>(iii) Trend line projection.</p> <p>(iv) Calculate MAD for the above methods and suggest the best method. (20 Marks)</p> <table border="1"> <thead> <tr> <th>Month</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> </tr> </thead> <tbody> <tr> <td>Sales</td> <td>27</td> <td>31</td> <td>29</td> <td>30</td> <td>32</td> <td>34</td> <td>36</td> <td>35</td> <td>37</td> </tr> <tr> <th>Month</th> <th>10</th> <th>11</th> <th>12</th> <th>13</th> <td colspan="5"></td> </tr> <tr> <td>Sales</td> <td>39</td> <td>40</td> <td>42</td> <td>?</td> <td colspan="5"></td> </tr> </tbody> </table>	Month	1	2	3	4	5	6	7	8	9	Sales	27	31	29	30	32	34	36	35	37	Month	10	11	12	13						Sales	39	40	42	?						1
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3.	<p>From the following data, find (20 Marks)</p> <p>1. Material cost, 2. Prime cost, 3. Direct cost, 4. Factory cost, 5. Administrative overheads, 6. Cost of production, 7. Selling and distribution overheads, 8. Total cost or cost of sales, 9. Selling price, Assume a net profit of Rs.15,000.</p> <p>a) Material in hand (April 1, 2019) 50,000</p> <p>b) material purchased 2,00,000</p> <p>c) Director's fees 3,500</p> <p>d) Advertising, etc. 12,000</p> <p>e) Depreciation on sales department car 1,200</p> <p>f) Printing and stationary charges 300</p> <p>g) Plant depreciation 5,000</p> <p>h) Wages of direct workers 70,000</p>	2																																								

	i) Wages of indirect (factory) workers 10,000 j) Rent of factory building 5,000 k) Postage, telephone and telegraph 200 l) Water and electricity for factory 1,000 m) Office salaries 2,000 n) Rent of the office 500 o) Rent of the show room 1,500 p) Commission of salesman 2,500 q) Sales department car expenses 1,500 r) Material in hand (March 31, 2020) 30,000 s) Variable direct expenses 750 t) Plant repair and maintenance 3,000 u) Heating, lighting and water for office use 2,500 v) Cost of distributing goods 2,000	
4.	Classify the types of cost with suitable examples (5 Marks)	2