Model Question Paper -1 with effect from 2020-21(CBCS Scheme)

USN | | | | | | | | | | |

Fifth Semester B.E. Degree Examination

Construction Management and Entrepreneurship

TIME: 03 Hours **Max. Marks: 100**

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.
02. Use of Normal Distribution Function table is permitted.

<table>
<tr><th colspan="3">Module – 1</th><th>Marks</th></tr>
<tr><td rowspan="3">Q.1</td><td>(a)</td><td>Discuss the functions of management.</td><td>8</td></tr>
<tr><td>(b)</td><td>The activity data of a project is given in the Table below:
<table>
<tr><th>Activity</th><th>Preceding Activity</th><th>Duration (Days)</th></tr>
<tr><td>X</td><td>--</td><td>5</td></tr>
<tr><td>Y</td><td>X</td><td>2</td></tr>
<tr><td>C</td><td>--</td><td>6</td></tr>
<tr><td>D</td><td>--</td><td>4</td></tr>
<tr><td>E</td><td>D</td><td>7</td></tr>
<tr><td>F</td><td>Y, C, E</td><td>3</td></tr>
</table>
Draw the network diagram, identify the critical path and Project duration using CPM.</td><td>8</td></tr>
<tr><td>(c)</td><td>Mention the limitations of Bar Chart.</td><td>4</td></tr>
<tr><td colspan="3">OR</td><td></td></tr>
<tr><td rowspan="3">Q.2</td><td>(a)</td><td>Four activities to be undertaken in series for the completion of a project are as follows:
<table>
<tr><th>Activity</th><th>Optimistic time (days)</th><th>Most likely time (days)</th><th>Pessimistic time (days)</th></tr>
<tr><td>P</td><td>8</td><td>14</td><td>22</td></tr>
<tr><td>Q</td><td>7</td><td>21</td><td>32</td></tr>
<tr><td>R</td><td>8</td><td>19</td><td>28</td></tr>
<tr><td>S</td><td>28</td><td>40</td><td>52</td></tr>
</table>
Estimate the time required at
(i) 95% probability to complete the project
(ii) 5 % probability to complete the project</td><td>10</td></tr>
<tr><td>(b)</td><td>Discuss on Autocratic and Democratic Management Styles.</td><td>4</td></tr>
<tr><td>(c)</td><td>Explain the Strategic and Operational Plans.</td><td>6</td></tr>
<tr><td colspan="3">Module – 2</td><td></td></tr>
<tr><td rowspan="3">Q.3</td><td>(a)</td><td>What are the factors affecting the labour productivity?</td><td>8</td></tr>
<tr><td>(b)</td><td>Estimate the hourly production in bulk volume (LCM) of a backhoe with bucket capacity of 0.96 cubic meters that is employed on excavation of a foundation, which is 4m deep in hard digging soil. The excavated earth is to be loaded in waiting dump trucks, placed at a swing angle of 75^0. The expected performance efficiency is 83%. Assume the ideal output of face shovel with given bucket capacity is 150 LCM. Assume and list the suitable corrections to be applied.</td><td>10</td></tr>
<tr><td>(c)</td><td>Give any four advantages of material management.</td><td>2</td></tr>
<tr><td colspan="3">OR</td><td></td></tr>
<tr><td rowspan="2">Q.4</td><td>(a)</td><td>Enumerate all the types and sub types of the different construction equipment.</td><td>10</td></tr>
<tr><td>(b)</td><td>What is Inventory Control? What are the functions of inventory control.</td><td>5</td></tr>
</table>

<table>
<tr><td></td><td>(c)</td><td>The purchase value of a crawler tractor is Rs. 30,00,000/-. Its assessed resale value after using for 5 years is 10% of the delivered price. The equipment is planned to operate 2000 hours per year. Calculate its annual and hourly depreciation.</td><td>5</td></tr>
<tr><td colspan="3">Module – 3</td><td></td></tr>
<tr><td rowspan="3">Q.5</td><td>(a)</td><td>Differentiate between quality control and quality assurance.</td><td>4</td></tr>
<tr><td>(b)</td><td>Explain the safety procedures to be adopted during excavation.</td><td>8</td></tr>
<tr><td>(c)</td><td>Discuss on the following (i) Gifts and bribes (ii) whistle blowing (iii) engineering ethics</td><td>8</td></tr>
<tr><td colspan="3">OR</td><td></td></tr>
<tr><td rowspan="3">Q.6</td><td>(a)</td><td>What are the safety procedures to be adopted during drilling and blasting.</td><td>6</td></tr>
<tr><td>(b)</td><td>Explain the TQM process in construction.</td><td>8</td></tr>
<tr><td>(c)</td><td>Briefly write about Morals and integrity in workplace.</td><td>6</td></tr>
<tr><td colspan="3">Module – 4</td><td></td></tr>
<tr><td rowspan="2">Q.7</td><td>(a)</td><td>Differentiate between micro and macro economics.</td><td>8</td></tr>
<tr><td>(b)</td><td>An engineer has two bids for an excavator to be installed in a new building project. The details of the bids for the excavator are as follows:
<table>
<tr><td rowspan="2">Bid</td><td colspan="3">Engineer’s estimate</td></tr>
<tr><td>Initial Cost (Rupees)</td><td>Service life (years)</td><td>Annual Operating & Maintenance Cost (Rupees)</td></tr>
<tr><td>Bid ‘A’</td><td>10,50,000/-</td><td>15</td><td>60,000</td></tr>
<tr><td>Bid ‘B’</td><td>11,00,000/-</td><td>15</td><td>70,500</td></tr>
</table>
Determine which bid should be accepted, based on the present worth method of comparison assuming 18% interest rate, compounded annually.</td><td>12</td></tr>
<tr><td colspan="3">OR</td><td></td></tr>
<tr><td rowspan="2">Q.8</td><td>(a)</td><td>Define the following terms related to engineering economics:
(i) Present worth (ii) Future worth (iii)Annuities (iv) Salvage value</td><td>8</td></tr>
<tr><td>(b)</td><td>The fixed costs for a company are Rs. 60,000/-. The estimated sales for the period are valued at Rs. 2,00,000/-. The variable cost per unit for the single product is Rs. 5/-. If each unit sells at Rs. 25/- and the number of units involved coincides with the expected volume of output. Construct the break even chart and determine the following:
(i) The breakeven point
(ii) The profit earned at a turnover of Rs. 1, 25, 000/-.
(iii) Margin of safety
(iv) Angle of incidence</td><td>12</td></tr>
<tr><td colspan="3">Module – 5</td><td></td></tr>
<tr><td rowspan="3">Q.9</td><td>(a)</td><td>Write briefly about international entrepreneurship opportunities.</td><td>4</td></tr>
<tr><td>(b)</td><td>Enumerate the barriers for entrepreneurship.</td><td>8</td></tr>
<tr><td>(c)</td><td>Discuss in detail about the project report for starting a new venture.</td><td>8</td></tr>
<tr><td colspan="3">OR</td><td></td></tr>
<tr><td rowspan="3">Q.10</td><td>(a)</td><td>Mention the uses of direct foreign investment.</td><td>4</td></tr>
<tr><td>(b)</td><td>Discuss the characteristics of entrepreneur.</td><td>8</td></tr>
<tr><td>(c)</td><td>Explain the scope and role of following agencies:
i. KIADB
ii. SIDBI</td><td>8</td></tr>
</table>

Table showing the Bloom's Taxonomy Level, Course Outcome and Programme Outcome

Question		Bloom's Taxonomy Level attached	Course Outcome	Programme Outcome
Q.1	(a)	L1	1	1
	(b)	L3	1	1, 2
	(c)	L 1	1	1, 2
Q.2	(a)	L3	1	1, 2
	(b)	L1	1	1, 2
	(c)	L2	1	1, 2
Q.3	(a)	L1	2	1, 2
	(b)	L3	2	1, 2
	(c)	L1	2	1, 2
Q.4	(a)	L1	2	1, 2
	(b)	L2	2	1, 2
	(c)	L3	2	1, 2
Q.5	(a)	L1	2	1, 2
	(b)	L2	2	1, 2
	(c)	L1	4	1, 2
Q.6	(a)	L2	2	8, 11
	(b)	L1	2	8, 11
	(c)	L1	4	1, 2
Q.7	(a)	L1	3	11
	(b)	L4	3	11
Q.8	(a)	L1	3	1, 2
	(b)	L3	3	1, 2
Q.9	(a)	L1	4	6
	(b)	L1	4	1, 2
	(c)	L2	4	6
Q.10	(a)	L1	4	6
	(b)	L2	4	1, 2
	(c)	L1	4	1, 2

Bloom's Taxonomy Levels	**Lower order thinking skills**		
	Remembering (knowledge):L_1	Understanding (Comprehension): L_2	Applying (Application): L_3
	Higher order thinking skills		
	Analyzing (Analysis): L_4	Valuating (Evaluation): L_5	Creating (Synthesis): L_6