



**Nadar Saraswathi College of Engineering and Technology,
Vadapudupatti, Theni - 625 531**

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Question Bank for the Units - I to V

SEM-8	8th Semester - B.E. / B.Tech.			
BR 114	Department of Mechanical Engineering			
MG 6863	ENGINEERING ECONOMICS			
	Part-A (10 x 2 = 20 Marks)			
	UNIT - I			
No	Question	Level	Competence	Mark
1.1	Define Economics?	L1	Remembering	2
1.2	Compare law of supply and demand.	L2	Understanding	2
1.3	Identify the four goals of economy?	L3	Applying	2
1.4	Classify factors influencing supply.	L4	Analyzing	2
1.5	Discuss the concept of factors in fluency demand.	L5	Evaluating	2
1.6	Interpret your understanding on Economic efficiency.	L6	Creating	2
1.7	Define engineering economics.	L1	Remembering	2
2.1	Compare marginal cost and marginal revenue in economics.	L2	Understanding	2
2.2	How would you estimate marginal revenue?	L3	Applying	2
2.3	What is the outcome of process planning?	L4	Analyzing	2
2.4	How is profit making related to break even analysis?	L5	Evaluating	2
2.5	Interpret P/V ratio to cost benefit analysis.	L6	Creating	2
2.6	Define Sunk Cost.	L1	Remembering	2
2.7	Define marginal cost.	L1	Remembering	2

UNIT - II

3.1	Define value engineering.	L1	Remembering	2
3.2	Compare the basics of make or buy decision.	L2	Understanding	2
3.3	Identify the aims of value engineering.	L3	Applying	2
3.4	Compare Value analysis with Value engineering.	L2	Understanding	2
3.5	A person wishes to have a future sum of Rs. 1,00,000 for his son's education after 10 years from now. What is the single-payment that he should deposit now so that he gets the desired amount after 10 years? The bank gives 15% interest rate compounded annually	L3	Applying	2
3.6	Classify the types of estimating time value of money.	L4	Analyzing	2
3.7	How is time incremental to money value?	L5	Evaluating	2
4.1	Define Equal Payment Series.	L1	Remembering	2
4.2	Explain how the concept of value engineering is used in decision Making	L2	Understanding	2
4.3	What is Capital Recovery Method?	L1	Remembering	2
4.4	What example can you state for make or buy decision?	L3	Applying	2
4.5	Classify the various types of equal payment series method.	L4	Analyzing	2
4.6	Define present worth factor of single payment.	L1	Remembering	2
4.7	Interpret the reasons of applying value analysis approach.	L6	Creating	2

UNIT - III

5.1	Define present worth method.	L1	Remembering	2
5.2	Identify the steps in future worth method.(Revenue dominated cash flow diagram)	L3	Applying	2
5.3	Categorize cash dominated cash flow diagram to future worth method.	L4	Analyzing	2
5.4	Discuss the economic life of a project.	L5	Evaluating	2

5.5	Define Annual equivalent method.	L1	Remembering	2
5.6	Compare rate of return with cash flow method.	L2	Understanding	2
5.7	Define Rate of Return Method.	L1	Remembering	2
6.1	Differentiate the cash dominated cash flow diagram in present worth method.	L2	Understanding	2
6.2	Conclude your understanding on the concept of Compound Interest	L4	Analyzing	2
6.3	Define the term interest.	L1	Remembering	2
6.4	Illustrate with example for annual equivalent method.	L2	Understanding	2
6.5	What is Rij method?	L1	Remembering	2
6.6	State the cash flow method.	L1	Remembering	2
6.7	Identify the steps in future worth method.(Revenue dominated cash flow diagram)	L3	Applying	2
UNIT - IV				
7.1	What is Preventive Maintenance?	L1	Remembering	2
7.2	Compare Prevention with Maintenance.	L2	Understanding	2
7.3	How do you understand the concept Break down maintenance?	L3	Applying	2
7.4	List out the preventive maintenance activities.	L4	Analyzing	2
7.5	Discuss about the economic life of an asset.	L5	Evaluating	2
7.6	Can you assess the importance of Replacement policies?	L6	Creating	2
7.7	What are the types of replacement problem?	L1	Remembering	2
8.1	Define Breakdown and Maintenance.	L1	Remembering	2
8.2	List the features of 'economic life' of equipment.	L1	Remembering	2
8.3	Compare Individual and Group Maintenance Cost.	L2	Understanding	2
8.4	List the features of Planned Maintenance Cost.	L1	Remembering	2

8.5	Conclude your knowledge on Individual Maintenance cost.	L4	Analyzing	2
8.6	How would you show your understanding on maintenance in automobile	L3	Applying	2
8.7	Compare Maintenance with Scheduled Maintenance.	L2	Understanding	2
UNIT - V				
9.1	Define Depreciation?	L1	Remembering	2
9.2	Compare declining balance method of depreciation and double declining balance method of depreciation.	L2	Understanding	2
9.3	How would you use Straight line method of depreciation?	L3	Applying	2
9.4	What do you think about Benefit cost ratio?	L4	Analyzing	2
9.5	Can you assess the Sum of the year-digits method of depreciation?	L5	Evaluating	2
9.6	Interpret sinking fund method of depreciation?	L6	Creating	2
9.7	List the reasons for inflation?	L1	Remembering	2
10.1	Identify the various types of depreciation?	L3	Applying	2
10.2	What do you think about the effect of inflation?	L4	Analyzing	2
10.3	Compile your views; a company has purchased an equipment whose first cost is Rs. 1, 00,000 with an estimated life of eight years. The estimated salvage value of the equipment at the end of its lifetime is Rs. 20,000. Determine the depreciation charge and book value at the end of various years using the Straight line method of depreciation.	L5	Evaluating	2
10.4	What do you mean by inflation adjusted decisions?	L1	Remembering	2
10.5	Can you recall why do we provide depreciation on fixed assets?	L1	Remembering	2
10.6	Differentiate straight line method of depreciation and declining balance method of depreciation.	L2	Understanding	2
10.7	List the causes of deflation?	L1	Remembering	2
UNIT- I				
11.a-1	i)How would you describe the flow in an economy with diagram? ii) How would you describe an economy?	L1	Remembering	(13)

11.a-2	Classify the elements of cost and its types.	L4	Analyzing	(13)
11.a-3	(a) Alpha Associates has the following details Variable cost per unit = Rs. 100 Fixed cost = Rs. 20,00,000 Selling price per unit = Rs. 200 Find (a) The break-even sales quantity, (b) The break-even sales (c) If the actual production quantity is 60,000, find (i) contribution; and (ii) Margin of safety by all methods. (b) Draw BEP point	L1	Remembering	(13)
11.a-4	Consider the following data of a company for the year 1997: Sales = Rs. 1,20,000 Fixed cost = Rs. 25,000 Variable cost = Rs. 45,000 Find the following: (a) Contribution (b) Profit (c) BEP (d)MS	L2	Understanding	(13)
11.b-1	Krishna Company Ltd. has the following details Fixed cost = Rs. 40,00,000 Variable cost per unit = Rs. 300 Selling price per unit = Rs. 500 Find (a) The break-even sales quantity (b) The break-even sales (c) If the actual production quantity is 1,20,000, find the following: Contribution , Margin of safety by all methods	L1	Remembering	(13)
11.b-2	Compare the process of material selection with process planning.	L2	Understanding	(13)
11.b-3	Consider the following data of a company for the year 1998: Sales = Rs. 80,000 Fixed cost = Rs. 15,000 Variable cost = 35,000 Find the following: (a) Contribution (b) Profit (c) BEP (d)MS	L2	Understanding	(13)
11.b-4	How would you summarize the concept law of supply and demand with suitable example?	L2	Understanding	(13)
UNIT - II				
12.a-1	How would you describe the various approaches of make or buy decision?	L1	Remembering	(13)
12.a-2	i) Analysis the aims of value engineering? ii) Categorize the advantages and application areas of value engineering.	L4	Analyzing	(13)

12.a-3	A company has extra capacity that can be used to produce a sophisticated fixture which it has been buying for Rs. 900 each. If the company makes the fixtures, it will incur materials cost of Rs. 300 per unit, Labour cost Rs.250 per unit, and variable overhead cost of Rs. 100 per unit. The annual fixed cost associated with the unused capacity is Rs.10,00,000. Demand over the next year is estimated at 5000 units. Would it be profitable for the company to make the fixtures?	L2	Understanding	(13)														
12.a-4	Briefly explain Various types of Interests and their formula?	L5	Evaluating	(13)														
12.b-1	Define value analysis. Briefly explain the steps of value engineering	L1	Remembering	(13)														
12.b-2	A company wants to set up a reserve which will help the company to have an annual equivalent amount of Rs.1000000 for the next 20 years towards its employee welfare measures. The reserve is assumed to grow at the rate of 15% annually. Find the single payment that must be made now as the reserve amount.	L2	Understanding	(13)														
12.b-3	i) Give practical applications of various interest formulas ii) A person is planning for his retired life. He has 10 years of service. He would like to deposit 20% of his salary which is Rs.4000, at the end of the 1 st year and thereafter he wishes to deposit the amount with an annual increase of Rs.5000 for the next 9 years with an interest rate of 15% Find the total amount at the end of the 10 th year of the above series.	L4	Analyzing	(13)														
12.b-4	Discuss the computation of future amount if a person deposits a sum of Rs.1,00,000 in a bank for his son's education who will be admitted to a professional course after 6 years. The bank pays 15% interest rate compounded annually. This happens at the time of admitting his son in professional course.	L1	Remembering	(13)														
UNIT - III																		
13.a-1	A company invests in one of the two mutually exclusive alternatives The life of both alternatives is estimated to be 5 years with the following investment, annual returns & salvage values. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">ALTERNATIVE</th> </tr> <tr> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>Investment RS</td> <td>-1,50,000</td> <td>-1,75,000</td> </tr> <tr> <td>Annual equal return</td> <td>60,000</td> <td>70,000</td> </tr> <tr> <td>Salvage Value RS</td> <td>15,000</td> <td>35,000</td> </tr> </tbody> </table> <p>Determine the best alternative based on the annual equivalent method by assuming $i=25\%$.</p>		ALTERNATIVE		A	B	Investment RS	-1,50,000	-1,75,000	Annual equal return	60,000	70,000	Salvage Value RS	15,000	35,000	L2	Understanding	(13)
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13.a-2	<p>A company has three proposals for expanding its business operations. The details are as follows:</p> <table border="1" data-bbox="220 235 995 504"> <thead> <tr> <th>Alternative</th> <th>Initial cost</th> <th>Annual revenue</th> <th>Life(years)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>25,00,000</td> <td>8,00,000</td> <td>10</td> </tr> <tr> <td>B</td> <td>20,00,000</td> <td>6,00,000</td> <td>10</td> </tr> <tr> <td>C</td> <td>30,00,000</td> <td>10,00,000</td> <td>10</td> </tr> </tbody> </table> <p>Each alternative has insignificant salvage value at the end of its life Assuming an interest rate of 15% compounded annually, find the best alternative for expanding the business operations of the company using the annual equivalent method</p>	Alternative	Initial cost	Annual revenue	Life(years)	A	25,00,000	8,00,000	10	B	20,00,000	6,00,000	10	C	30,00,000	10,00,000	10	L3	Applying	(13)
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13.a-3	<p>A company must decide whether to buy machine A or machine B. At 15% interest rate which machine should be purchased?</p> <table border="1" data-bbox="263 795 952 1305"> <thead> <tr> <th></th> <th>Machine A</th> <th>Machine B</th> </tr> </thead> <tbody> <tr> <td>Initial cost(Rs)</td> <td>3,00,000</td> <td>6,00,000</td> </tr> <tr> <td>Useful life(years)</td> <td>4</td> <td>4</td> </tr> <tr> <td>Salvage value at the end of machine life(Rs)</td> <td>2,00,000</td> <td>3,00,000</td> </tr> <tr> <td>Annual maintenance</td> <td>30000</td> <td>0</td> </tr> </tbody> </table>		Machine A	Machine B	Initial cost(Rs)	3,00,000	6,00,000	Useful life(years)	4	4	Salvage value at the end of machine life(Rs)	2,00,000	3,00,000	Annual maintenance	30000	0	L6	Creating	(13)	
	Machine A	Machine B																		
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13.a-4	<p>Alpha industry is planning to expand its production operation. It has identified three different technologies for meetig the goal. The initial outlay and annual revenues with respect to each of the technologies are summarised in the table. Suggest the best technology which is to be implemented based on the present worth method of comparison assuming 20% interest rate compounded annually.</p> <table border="1" data-bbox="220 1601 995 2000"> <thead> <tr> <th></th> <th>Initial outlay</th> <th>Annual revenue</th> <th>Life(in years)</th> </tr> </thead> <tbody> <tr> <td>Technology 1</td> <td>12,00,000</td> <td>400000</td> <td>10</td> </tr> <tr> <td>Technology 2</td> <td>20,00,000</td> <td>600000</td> <td>10</td> </tr> <tr> <td>Technology 3</td> <td>18,00,000</td> <td>5,00,000</td> <td>10</td> </tr> </tbody> </table>		Initial outlay	Annual revenue	Life(in years)	Technology 1	12,00,000	400000	10	Technology 2	20,00,000	600000	10	Technology 3	18,00,000	5,00,000	10	L1	Remembering	(13)
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13.b-1	Classify cost dominated cash flow diagram to derive the Annual Equivalent Method.	L4	Analyzing	(13)																

13.b-2	<p>A man owns a corner plot. He must decide which of the several alternatives to select in trying to obtain a desirable return on his investment. After much study and calculation, he decides that the two best alternatives are given below</p> <table border="0" style="margin-left: 40px;"> <tr> <td></td> <td style="text-align: center;">Build soft Gas station</td> <td style="text-align: center;">ice-cream stand</td> </tr> <tr> <td>First cost</td> <td style="text-align: center;">Annual</td> <td style="text-align: center;">20,00,000</td> <td style="text-align: center;">36,00,000</td> </tr> <tr> <td>Property taxes</td> <td></td> <td style="text-align: center;">80,000</td> <td style="text-align: center;">1,50,000</td> </tr> <tr> <td>Annual income</td> <td></td> <td style="text-align: center;">8,00,000</td> <td style="text-align: center;">9,80,000</td> </tr> <tr> <td>Life of building (in years)</td> <td></td> <td style="text-align: center;">20</td> <td style="text-align: center;">20</td> </tr> <tr> <td>Salvage value</td> <td></td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> </table> <p>What is the best alternative based on the future worth method at $i=12\%$. How will you represent the cost-dominated cash flow diagram?</p>		Build soft Gas station	ice-cream stand	First cost	Annual	20,00,000	36,00,000	Property taxes		80,000	1,50,000	Annual income		8,00,000	9,80,000	Life of building (in years)		20	20	Salvage value		0	0	L4	Analyzing	(13)
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13.b-3	<p>A person is planning a new business. The initial outlay and cash flow pattern for the new business is as follows. The expected life of the business is five years. Find the rate of return for the new business.</p> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Per iod</th> <th>0</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> </tr> </thead> <tbody> <tr> <td>Cas h flow</td> <td style="text-align: center;">- 10000 0</td> <td style="text-align: center;">3000 0</td> <td style="text-align: center;">30000</td> <td style="text-align: center;">30000</td> <td style="text-align: center;">3000 0</td> <td style="text-align: center;">30000</td> <td style="text-align: center;">30000</td> </tr> </tbody> </table>	Per iod	0	1	2	3	4	5	6	Cas h flow	- 10000 0	3000 0	30000	30000	3000 0	30000	30000	L4	Analysis	(13)							
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Cas h flow	- 10000 0	3000 0	30000	30000	3000 0	30000	30000																				
13.b-4	Discuss in detail about the rate of return method	L1	Remembering	(13)																							
UNIT - IV																											
14.a-1	<p>(i) List the features of Maintenance. How would you manage maintenance in any sector</p> <p>(ii) List the causes for replacement of assets in detail</p>	L1	Remembering	(13)																							
14.a-2	<p>(i) Explain the types of Replacement</p> <p>(ii) Compare replacement and maintenance analysis</p>	L2	Understanding	(13)																							
14.a-3	<p>Challenger and Defender: Two years ago, a machine was purchased at a cost of Rs.2, 00,000 to be useful for eight years. Its salvage value at the end of its life is Rs. 25,000. The annual maintenance cost is Rs.25, 000. The market value of the present machine is Rs. 1, 20,000. Now, a machine to cater to the need of the present machine is available at Rs. 1, 50,000 to be useful for six years. Its annual maintenance cost is Rs. 14,000. The salvage value of the new machine is Rs. 20,000. Using an interest rate of 12%, how would you find whether it is worth replacing the present machine with the new machine?</p>	L3	Applying	(13)																							

14.a-4	<p>A firm is considering replacement of equipment, whose first cost is Rs.1,750 and the scrap value is negligible at any year. Based on experience, it was found that the maintenance cost is zero during the first year and it increases by Rs. 100 every year thereafter.</p> <p>(a) When should the equipment be replaced if $i = 0\%$?</p> <p>(b) When should the equipment be replaced if $i = 12\%$?</p>	L4	Analyzing	(13)																																												
14.b-1	<p>What are all the various types of Maintenance? Evaluate their merits and Demerits</p>	L1	Remembering	(13)																																												
14.b-2	<p>Two years ago, a machine was purchased at a cost of Rs. 2,00,000 to be useful for eight years. Its salvage at the end of its life is Rs.25,000. The annual maintenance cost is Rs. 1,20,000. Now, a new machine to cater to the need of the present machine is available at Rs. 1,50,000 to be useful for six years. Its annual maintenance cost is Rs. 14,000. The salvage value of the new machine is Rs. 20,000. Using an interest rate of 12%, find whether it is worth replacing the present machine with the new machine.</p>	L5	Evaluating	(13)																																												
14.b-3	<p>(a) How would you show your understanding in finding the economic life of an asset?</p> <p>(b) How would you use the concept of challenger and Defender in replacement?</p>	L3	Applying	(13)																																												
14.b-4	<table border="1" data-bbox="256 1061 962 1639"> <thead> <tr> <th>End of years</th> <th>Operation cost at end of year</th> <th>Maintenance cost</th> <th>Salvage value</th> </tr> </thead> <tbody> <tr><td>1</td><td>3,000</td><td>300</td><td>9000</td></tr> <tr><td>2</td><td>4,000</td><td>400</td><td>8000</td></tr> <tr><td>3</td><td>5,000</td><td>500</td><td>7000</td></tr> <tr><td>4</td><td>6,000</td><td>600</td><td>6000</td></tr> <tr><td>5</td><td>7,000</td><td>700</td><td>5000</td></tr> <tr><td>6</td><td>8,000</td><td>800</td><td>4000</td></tr> <tr><td>7</td><td>9,000</td><td>900</td><td>3000</td></tr> <tr><td>8</td><td>10,000</td><td>1000</td><td>2000</td></tr> <tr><td>9</td><td>11,000</td><td>1100</td><td>1000</td></tr> <tr><td>10</td><td>12,000</td><td>1200</td><td>0</td></tr> </tbody> </table> <p>The following table gives the operation cost; maintenance cost and salvage value at the end of every year of a machine whose purchase value is Rs. 20,000? Find the economic life of the machine assuming interest rate, $i=15\%$.</p>	End of years	Operation cost at end of year	Maintenance cost	Salvage value	1	3,000	300	9000	2	4,000	400	8000	3	5,000	500	7000	4	6,000	600	6000	5	7,000	700	5000	6	8,000	800	4000	7	9,000	900	3000	8	10,000	1000	2000	9	11,000	1100	1000	10	12,000	1200	0	L4	Analyzing	(13)
End of years	Operation cost at end of year	Maintenance cost	Salvage value																																													
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UNIT - V																																																
15.a-1	<p>How would you explain the various methods of depreciation?</p>	L1	Remembering	13																																												
15.a-2	<p>Explain inflation adjusted decision.</p>	L2	Understanding	13																																												

15.a-3	. Himalaya Drug Company has just purchased a capsulation machine for Rs.10, 00,000. The plant engineer estimates that the machine has a useful life of 5 years and a salvage value of Rs. 10,000 at the end of its useful life. Compute the depreciation schedule for the machine by each of the following depreciation methods (i) Straight line method of depreciation (ii) Sum –of-the-year’s digits method of depreciation	L3	Applying	13
15.a-4	A company has purchased an equipment whose first cost is Rs. 1, 00,000 with an estimated life of eight years. The estimated salvage value of the equipment at the end of its lifetime is Rs. 20,000. Determine the depreciation charge and book value at the end of the 5th year using the sum-Of-the-years-digits method of depreciation	L1	Remembering	13
15.b-1	Calculate the Depreciation, accumulated Depreciation and book value for the following Data using Declined Balance Method Initial Investment = Rs. 24,000 Salvage Value = Rs. 3,000 Time 5 YEARS	L1	Remembering	13
15.b-2	A machine is purchased for Rs. 45,000 and has a life of 20 years. Its salvage value is estimated to be Rs. 3,000. Using the sum of years digits method, calculate annual depreciation charges for first, sixth, and eleventh sixteenth and twentieth years.	L1	Remembering	13
15.b-3	The first coat of a road laying machine is Rs. 80, 00,000. Its salvage value after five years is Rs. 50,000. The length of road that can be laid by the machine during its lifetime is 75,000 km. In its third year of operation the length of road laid is 2,000 km. Find the depreciation of the equipment for that year using service output method of depreciation.	L1	Remembering	13
15.b-4	The cost of a machine is Rs.1, 60,000 and its scrap value is Rs. 40,000 Estimated life 5 years. Using sum of year’s digits method, determine depreciation charges for each year. Demonstrate the calculations of the sum-of-the-years-digits method of depreciation	L4	Analyzing	13
Part - C (1 x 15 = 15 Marks)				
<u>UNIT-I</u>				
16.a-1	Bring out the scope of engineering economics with appropriate examples.	L5	Evaluation	15
16.a-2	Explain the process of material selection in new product development.	L5	Evaluation	15

	(OR)			
16.b-1	Discuss the scope of engineering economics with NANO technology as a new science introduced in the industry.	L5	Evaluation	15
16.b-2	Discuss the principles of Engineering Economics procedure.	L5	Evaluation	15
	<u>UNIT-II</u>			
16.a-1	If you had Rs 2000 now and invested it at 10%,how much would it be worth in 8 years?	L5	Evaluation	15
16.a-2	How much will a piece of property have to increase in value over the next five years, if it is to earn 10% /year on the purchase price?	L5	Evaluation	15
	(OR)			
16.b-1	Find the maturity amount of the deposit after 20 years if a sum of Rs 30,000 is deposited in a nominal interest rate of 17% for 20 years. The compounding is monthly.	L5	Evaluation	15
16.b-2	Suppose Rs1000 is to be received in 5 years. At an annual interest of 12%,what is the present worth of this amount?	L5	Evaluation	15
	<u>UNIT-III</u>			
16.a-1	A Company is trying to diversity its business in a new product line. The life of the project is 10 years with no salvage value at the end of its life. The initial outlay of the project is Rs20,00,000. The annual net profit is the project is RS 3,50,000.Find the rate of return for the new business.	L5	Evaluation	15
	(OR)			
16.b-2	What is annual equivalent method of comparing alternatives?	L5	Evaluation	15
	<u>UNIT-IV</u>			
16.a-1	Explain the types of maintenance in detail.	L5	Evaluation	15

16.a-2	What is maintenance analysis? Explain the objectives and function of maintenance department in an industry.	L5	Evaluation	15
(OR)				
16.b-1	What is replacement analysis? Explain the factors to be considered for replacing equipments.	L5	Evaluation	15
16.b-2	What is defender challenger concept in replacement? Illustrate with an example.	L5	Evaluation	15
<u>UNIT-V</u>				
16.a-1	What are the causes of depreciation?	L5	Evaluation	15
16.a-2	A Plant has the original value of Rs 14, 000, The scrap value in 10 years time expected to be Rs 3400.Determinane the rate depreciation when the management wants to depreciate it by straight line method.	L5	Evaluation	15
(OR)				
16.b-1	Explain and distinguish between the private and public for evaluation alternatives in organizations.	L5	Evaluation	15
16.b-2	Explain the procedure to adjust inflation.	L5	Evaluation	15

L1: Knowledge, L2: Comprehension, L3: Application, L4: Analysis, L5: Evaluation, L6: Synthesis

QUESTION BANK SUMMARY

S.NO	UNIT	DETAILS	L1	L2	L3	L4	L5	L6	TOTAL
1	Unit-1	PART-A	4	2	2	2	2	2	14
		PART-B	3	4	-	1	-	-	8
		PART-C	-	-	-	-	4	-	4
2	Unit-2	PART-A	4	3	3	2	1	1	14
		PART-B	3	2	-	2	1	-	8
		PART-C	-	-	-	-	4	-	4
3	Unit-3	PART-A	4	2	1	1	-	-	8
		PART-B	2	1	1	3	-	-	6
		PART-C	-	-	-	-	2	-	2
4	Unit-4	PART-A	3	1	2	2	2	2	12
		PART-B	2	1	2	2	1	-	8
		PART-C	-	-	-	-	4	-	4
5	Unit-5	PART-A	5	2	2	2	2	1	14
		PART-B	5	1	1	1	-	-	8
		PART-C	-	-	-	-	4	-	4

Total No of Questions	PART-A	PART-B	PART-C	TOTAL
	70	40	18	128

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