

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

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Fifth Semester B.E. Degree Examination Management and Economics

TIME: 03 Hours

Max. Marks: 100

- Note: 01. Answer any FIVE full questions, choosing at least ONE question from each MODULE.
02. Use of compound Interest Tables is permitted

Module - 1			
Q.1	(a)	Is Management an art or a science? Bring out the differences between Management and Administration.	10
	(b)	What is planning? Discuss in detail the steps involved in planning.	10
OR			
Q.2	(a)	Discuss the various levels of Management and the skills needed to carry out the responsibilities at these levels.	10
	(b)	With a suitable block diagram discuss the hierarchy of plans.	10
Module - 2			
Q.3	(a)	What is span of control and what are the factors affecting the span of control?	10
	(b)	What is controlling and what are the requirements of an efficient controlling system?	10
OR			
Q.4	(a)	List and discuss the various principles of Organization.	10
	(b)	What are different theories of motivation? Explain any one in detail.	10
Module - 3			
Q.5	(a)	Explain the law of demand and supply with suitable examples	10
	(b)	A person wishes to have Rs.10,00,000 for his daughter's marriage, 12 years from now. He plans to deposit a lump sum amount which will fetch him an interest of 10% compounded semi-annually. Determine the amount he should deposit now.	06
	(c)	How much interest is earned on a Principal amount of Rs. 25,000 for 7 years 10 months, at 8% compounded monthly?	04
OR			
Q.6	(a)	Briefly explain the meaning of elasticity of demand and the types of elasticity of demand.	06
	(b)	A person will retire at the age of 58 years and wishes to receive a lump sum for his retirement. He invests in a retirement policy when he is 40 years old with an annual premium of Rs.60,000 till he reaches 58 years. If the rate of interest is 10.5% compounded annually, find out how much lump sum money he will receive at the end of the policy.	08

	(c)	A person plans for higher education of his child. He needs the amount at the end of 18 years. He invests Rs.80,000 at the commencement of the policy and increases his investment by 10% every year for the next 17 years. what will be the maturity amount he will receive if the policy promises a return of 12% per year?	06																	
Module - 4																				
Q.7	(a)	A company needs a mini bus to commute their employees from home to work and back. They have two alternatives: 1. To rent a vehicle at Rs. 3 Lakhs per year for the next five years. 2. To buy a second hand vehicle for Rs. 3 lakhs with an operating and maintenance cost of Rs. 1.8 Lakhs per year. The salvage value of the vehicle after a period of 5 years is Rs. 85,000. select the best alternative based on the present worth comparison using an interest rate of 10% compounded annually.	10																	
	(b)	Find the best option to buy a CNC machine using a future worth method: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Option</th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>Initial Investment</td> <td>20,00,000</td> <td>18,00,000</td> </tr> <tr> <td>Annual Maintenance</td> <td>2,00,000</td> <td>1,80,000</td> </tr> <tr> <td>Annual savings</td> <td>3,00,000</td> <td>2,50,000</td> </tr> <tr> <td>Salvage</td> <td>2,30,000</td> <td>1,60,000</td> </tr> <tr> <td>Life</td> <td>10 Years</td> <td>10 Years</td> </tr> </tbody> </table> Use interest rate of 10.5% compounded annually	Option	A	B	Initial Investment	20,00,000	18,00,000	Annual Maintenance	2,00,000	1,80,000	Annual savings	3,00,000	2,50,000	Salvage	2,30,000	1,60,000	Life	10 Years	10 Years
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Life	10 Years	10 Years																		
OR																				
Q.8	(a)	Two machine models A and B perform the same function. Machine A has a low initial cost of Rs. 75,600 but a relatively high operating cost of Rs.1760 more than that of machine B. It has a life of 4 years. Machine B costs Rs.1,01,000 and an annual maintenance cost of Rs. 6000 per year and can be kept economically operational for 8 years. The scrap value of either machine is negligible. which machine is preferred using an equivalent annual cost? The minimum attractive rate of return is 9%.	10																	
	(b)	A plot can be purchased for Rs.14,00,000. Company A offers a loan at a nominal interest rate of 8% if a down payment of Rs.1,00,000 is made initially. The loan is to be paid off in 10 years. Company B offers 8 years of repayment period for the same amount of down payment at an interest rate of 9% compounded annually. Calculate the annual repayment for both the alternatives.	10																	
Module - 5																				
Q.9	(a)	with a neat block diagram explain in detail the components that are to be considered to decide the selling price of a component.	10																	
	(b)	A firm is producing 2000 pens per day. The direct material and labor cost are Rs.1800 and Rs. 2200 respectively. The chargeable factory overheads are Rs.2900. If selling is to be done at 20% above the factory cost, what must be the selling cost of each pen if the company needs to make a profit of 22% of the selling price?	10																	
OR																				
Q.10	(a)	A CNC machine costs Rs.40, 00,000 and is assumed to serve for 8 years after which its salvage value is expected to be Rs.3,50,000. Find:	12																	

	i.) Depreciation fund at the end of 5 th year by fixed method and declining balance method. i.) Book value of the machine after the 4 th and 6 th year by declining balance method.	
(b)	A company purchases a lathe machine for Rs.5,00,000 to operate it for 5 years at an interest rate of 5%. If the salvage value is Rs.60,000 after 5 years, determine: i.) Sinking fund amount i.) Annual depreciation cost	08

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	C01	
	(b)	L1 L2	C02	
Q.2	(a)	L1 L2	C03	
	(b)	L1 L2	C03	
Q.3	(a)	L1	C03	
	(b)	L1	C03	
Q.4	(a)	L1 L2	C03	
	(b)	L1	C03	
	(c)	L1 L2	C03	
Q.5	(a)	L3	C04	
	(b)	L4	C04	
	(c)	L2	C04	
Q.6	(a)	L1 L2	C04	
	(b)	L4 L5	C04	
	(c)	L4 L5	C04	
Q.7	(a)	L4	C05	
	(b)	L4	C05	
Q.8	(a)	L4 L5	C05, C06	
	(b)	L4 L5	C05	
Q.9	(a)	L5	C05, C06	
	(b)	L4 L5	C05, C06	
Q.10	(a)	L1 L2	C05	
	(b)	L4 L5	C06	
Lower order thinking skills				
Bloom's Taxonomy Levels	Remembering(knowledge): □ ₁		Understanding (Comprehension): □ ₂	Applying (Application): □ ₃

Higher order thinking skills		
Analyzing (Analysis): □ ₄	Valuating (Evaluation): □ ₅	Creating (Synthesis): □ ₆

Model Question Paper -2 with effect from 2020-21(CBCS Scheme)

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TIME: 03 Hours

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- Note: 03. Answer any FIVE full questions, choosing at least ONE question from each MODULE.
04. Use of compound Interest Tables is permitted

Module - 1			
Q.1	(a)	Discuss the nature and characteristics of Management.	10
	(b)	List the various types of plans. why is decision making important in planning?	10
OR			
Q.2	(a)	Describe the evolution process of the Management thought process considering the early schools of thoughts and the modern styles of management.	10
	(b)	what are the objectives of planning? what do you understand by the term Premises of Planning?	10
Module - 2			
Q.3	(a)	what is leadership? what are the various leadership styles?	10
	(b)	With a neat block diagram, explain the communication process.	10
OR			
Q.4	(a)	what is staffing? Describe the process of selection in detail.	12
	(b)	Define MBO(Management by Objectives) and MBE(Management by Exception)	04
	(c)	Define coordination and explain its importance for the success of any organization.	04
Module - 3			
Q.5	(a)	With a neat sketch, explain the problem solving process.	06
	(b)	Determine the effective rate of interest for a nominal annual rate of 10% that is compounded: i) daily ii) monthly iii) quarterly iv) semi-annually v) continuously	10
	(c)	Explain with suitable examples, simple rate of interest and compound rate of interest	04
OR			
Q.6	(a)	Explain the law of diminishing returns and its limitations	06
	(b)	Find the profitable investment among the two after 10 years: i.) Option A involves one time investment of Rs.1,00,000 ii.) Option B involves Rs.12,000 investment annually Both options give 10% interest rate compounded annually.	08
	(c)	Calculate the rate of return if a person invests Rs.15,000 at the end of 1 st year and increases it at the rate of 10% per year. He invests for 10 years and at	06

the end he receives a lump sum of Rs.2,50,000.

Module - 4

Q.7	(a)	Find the best alternative based on present worth method:			12
	Alternative	X	Y	Z	
	Initial Investment in Rs	10,00,000	11,00,000	12,50,000	
	Life	7 years	7 years	7 years	
	Salvage value in Rs	1,20,000	2,50,000	3,00,000	
	Revenue in Rs	1 st years 2 lakhs and then increases by 10%	1 st years 2.5 lakhs and then increases by 5%	1 st years 3 lakhs and then decreases by Rs.6000 per year	
	Annual Maintenance in Rs	Rs.35,000 for the 1 st year and then increases by 8% per year.	Rs.40,000 for the 1 st year and then increases by 5% per year.	Rs.50,000 annually	
Q.7	(b)	Choose the best alternative based on present worth method:			08
	Alternative	X	Y	Z	
	Purchase price in Rs	2,00,000	4,50,000	4,00,000	
	Life	4 years	8 years	8 years	
	Salvage value in Rs	1,20,000	90,000	85,000	
	Revenue in Rs	3,00,000	2,10,000	1,95,000	
	Annual Maintenance in Rs	50,000	35,000	30,000	
OR					
Q.8	(a)	A food processing company is planning its expansion of cold storage facility. Three alternative site proposals are being considered using MARR at 10%. Plans A & B require an investment of Rs.36,00,000 for the land while plan C requires Rs.44,00,000. The investment will increase the company's revenue by Rs.24,00,000 per year. The company proposes that a life of 10 years be used for analysis. Data pertaining to the project are given below:			12
	Details	Proposal A	Proposal B	Proposal C	
	Building & Machine Installation	60 Lakhs	70 Lakhs	50 Lakhs	
	Compressor cost	10,00,000	13,50,000	8,50,000	
	Expected energy cost per year	6,50,000	4,80,000	6,50,000	

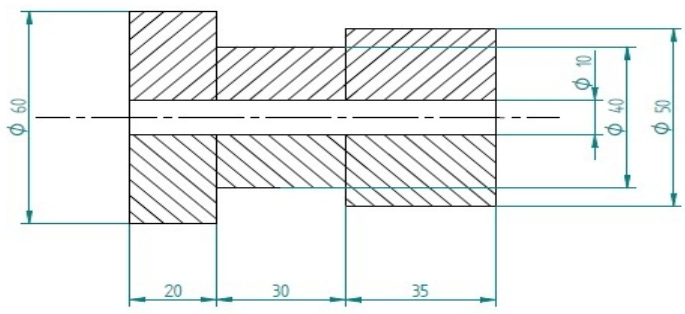
	Increase in energy cost for each additional year	30,000	20,000	35,000
	Annual Maintenance	2,00,000	1,50,000	5,00,000
	Salvage value of equipment	3,50,000	4,30,000	1,80,000
Evaluate and recommend which proposal has to be selected based on equated annual worth analysis				

(b) The following alternatives can perform the same function. At an annual rate of 11%, rank the alternatives as per the equivalent annual cost:

Alternative	First cost	Life	Salvage value	Annual cost
A	6000	6 years	2000	800
B	3000	3 years	1000	1000
C	2000	3 years	NIL	1200

Module - 5

Q.9 (a) Estimate the weight of the component and cost of material if the cost per Kg is Rs.120 for the cast iron (assume density of CI as 7.13gm/cm³) stepped bar shown in the figure:



(b) The market price of a washing machine is Rs.50,000 and the discount allowed to the distributor is 5% of the market price. The selling expense of the product is 15% of the factory cost. If the material cost, labor cost and factory overheads are in the range of 1:3:2, what profit is made by the factory on each washing machine if the material cost is Rs.4,000? Other overhead costs may be neglected.

OR

Q.10 (a) Briefly explain the following:
 i.) Fixed percentage depreciation method
 i.) Sinking fund depreciation method
 i.) Personal Income tax
 v.) Corporate income tax

(b) A VMC costs Rs.35,00,000 and is expected to serve for 8 years after which its salvage value is expected to be Rs.3,00,000. Find:
 i.) Book value of the machine after 4th and 6th year by declining balance method
 i.) Depreciation at the end of 6th and 7th year by SOYD (sum of year digits) method
 i.) Depreciation by straight line method of depreciation

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