### 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.

	1		Modu	ule – 1				Marks
(a)	Discuss the functions of management.							8
(b)	The activity data o Draw the network	f a project Activity X Y C D E F diagram, ic	is giver Preced	n in the Table I ling Activity  X  D Y, C, E the critical pat	Delow: Duration 5 2 6 6 4 7 7 3 h and Proj	n (Days)	on using CPM.	8
(c) Mention the limitations of Bar Chart.								4
OR								
(a)	Four activities to be Activity Opti P Q R S Estimate the time r (i) 95% probability (ii) 5 % probability	undertaken mistic time 8 7 8 28 required at y to comple y to comple	in series (days) ete the p ete the p	s for the comple Most likely ti 14 21 19 40 project	tion of a pr me (days)	oject are a Pessimis	s follows: tic time (days) 22 32 28 52	10
(b) Discuss on Autocratic and Democratic Management Styles.								4
(c) Explain the Strategic and Operational Plans.								6
(a)	What are the fast	ore offection	Modu	ile – 2	witzy?			
(a) (b)	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 <sup>0</sup> . 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						10	
(c) Give any four advantages of material management.								2
OR								
(a)	Enumerate all the types and sub types of the different construction equipment.What is Inventory Control? What are the functions of inventory control.						10	
(b)							5	
	<ul> <li>(a)</li> <li>(b)</li> <li>(c)</li> <li>(a)</li> <li>(b)</li> <li>(c)</li> <li>(a)</li> <li>(c)</li> <li>(a)</li> <li>(c)</li> <li>(a)</li> <li>(c)</li> <li>(a)</li> <li>(c)</li> <li>(c)</li></ul>	<ul> <li>(a) Discuss the function</li> <li>(b) The activity data of the activity dat</li></ul>	(a)Discuss the functions of mana(b)The activity data of a projectActivityActivityXYCDEDFDraw the network diagram, id(c)Mention the limitations of Ba(a)Four activities to be undertakenActivityOptimistic timeP8Q7R8S28(b)Discuss on Autocratic and Detii) 5 % probability to complet(c)Explain the Strategic and Ope(a)What are the factors affecting (a)(b)Estimate the time required at a swing and Assume the ideal output of fa and list the suitable correction (c)(a)Enumerate all the types and (b)(b)Enumerate all the types and (c)(a)Enumerate all the types and (c)(b)Enumerate all the types and (c)	(a) Discuss the functions of management (b) The activity data of a project is given Activity Preced X Y C D C D C D C D C D D D D D D D D D D D D D	Module – 1(a) Discuss the functions of management.(b)The activity data of a project is given in the Table I Activity Preceding Activity XXQYXCPreceding Activity XXQPreceding ActivityXYXCDEDDFY, C, EDraw the network diagram, identify the critical pather(c)Mention the limitations of Bar Chart.OR(a)FY, C, EDraw the network diagram, identify the critical pather(c)Activity Optimistic time (days) Most likely ti PActivity Optimistic time (days) Most likely ti PP814Q721R819S2828ObDiscuss on Autocratic and Democratic Management(i)S28Module - 2(a)What are the factors affecting the labour production(b)Discuss on Autocratic and Democrati	Module – 1(a)Discuss the functions of management.(b)The activity data of a project is given in the Table below:ActivityPurationX5YX22C6D4ED77FY, C, E3Oraw the network diagram, identify the critical path and Proj(c)Mention the limitations of Bar Chart.OR(a)Four activities to be undertaken in series for the completion of a project (ii) 5P814Q721R819S2840CEstimate the time required at (i) 95% probability to complete the project (ii) 5 % probability to complete the project (ii) 5 % probability to complete the project (ii) 5 % probability to complete the projectModule - 2(a)What are the factors affecting the labour productivity?(b)Estimate the hourly production in bulk volume (LCM) or capacity of 0.96 cubic meters that is employed on excavation 4 m deep in hard digging soil. The excavated earth is to b trucks, placed at a swing angle of 75°. The expected perfor Assume the ideal output of face shovel with given bucket cap and list the suitable corrections to be applied.(c)Give any four advantages of material management.OR(a)What are the ideal output of face shovel with g	Module – 1(a) Discuss the functions of management.(b)The activity data of a project is given in the Table below:Activity Preceding Activity Duration (Days)XXQQCCCCCCCCQORORORColspan="2">ORORColspan="2">ORORColspan="2">ORORORColspan="2">ORORActivity Optimistic time (days) Most likely time (days) Pessimis PPActivity Optimistic time (days)Most likely time (days)PessimisPActivity Optimistic time (days)Most likely time (days)PessimisP814Q721RActivity Optimistic time (days)Most likely time (days)PessimisP8 <th< th=""><th>Module – 1(a) Discuss the functions of management.(b)The activity data of a project is given in the Table below:ActivityPreceding ActivityDuration (Days)<math>X</math>-5<math>Y</math><math>X</math>2<math>C</math>4<math>D</math>4<math>E</math><math>D</math>7<math>E</math><math>Y</math><math>X</math><math>C</math>4<math>E</math><math>D</math>7<math>T</math><math>T</math><math>T</math>Oraw the network diagram, identify the critical path and Project duration using CPM.(c)Mention the limitations of Bar Chart.OR(a)Four activities to be undertaken in series for the completion of a project are as follows:ActivityOptimistic time (days)Most likely time (days)<math>P</math><math>8</math>1422<math>Q</math>72132<math>R</math><math>8</math>1928<math>S</math>284052Statistic time (days)<math>R</math><math>8</math>1928<math>S</math>284052Module - 2(a)What are the factors affecting the labour productivity?(b)Estimate the time required at (i) 5% probability to complete the projectModule - 2(a)What are the factors affecting the labour productivity?(b)Estimate the factors affecting the labour pr</th></th<>	Module – 1(a) Discuss the functions of management.(b)The activity data of a project is given in the Table below:ActivityPreceding ActivityDuration (Days) $X$ -5 $Y$ $X$ 2 $C$ 4 $D$ 4 $E$ $D$ 7 $E$ $Y$ $X$ $C$ 4 $E$ $D$ 7 $T$ $T$ $T$ Oraw the network diagram, identify the critical path and Project duration using CPM.(c)Mention the limitations of Bar Chart.OR(a)Four activities to be undertaken in series for the completion of a project are as follows:ActivityOptimistic time (days)Most likely time (days) $P$ $8$ 1422 $Q$ 72132 $R$ $8$ 1928 $S$ 284052Statistic time (days) $R$ $8$ 1928 $S$ 284052Module - 2(a)What are the factors affecting the labour productivity?(b)Estimate the time required at (i) 5% probability to complete the projectModule - 2(a)What are the factors affecting the labour productivity?(b)Estimate the factors affecting the labour pr

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	(c)	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.					
		Module – 3					
Q.5	(a)	Differentiate between quality control and quality assurance.					
	<b>(b)</b>	Explain the safety procedures to be adopted during excavation.					
	(c)	Discuss on the following (i) Gifts and bribes (ii) whistle blowing (iii) engineering ethics	8				
		OR					
Q.6	(a) What are the safety procedures to be adopted during drilling and blasting.						
	<b>(b)</b>	Explain the TQM process in construction.					
	(c)	Briefly write about Morals and integrity in workplace.	6				
		Module – 4					
Q.7	<b>(a)</b>	Differentiate between micro and macro economics.	8				
	(b)	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: Engineer's estimate					
		BidInitial Cost (Rupees)Service life (years)Annual Operating & Maintenance Cost (Rupees)Bid 'A'10,50,000/-1560,000Bid 'A'10,50,000/-1560,000	12				
		Determine which bid should be accepted, based on the present worth method of comparison assuming 18% interest rate, compounded annually.					
0.8	(a)	Define the following terms related to engineering economics:					
<b>V</b> 10	(11)	(i) Present worth (ii) Future worth (iii)Annuities (iv) Salvage value					
	(b)	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					
0.0		Module – 5					
Q.9	(a)	Write briefly about international entrepreneurship opportunities.					
	(b)	) Enumerate the barriers for entrepreneurship.					
	(c) Discuss in detail about the project report for starting a new venture.						
		OR					
Q.10	(a)	Mention the uses of direct foreign investment.	4				
	(b) Discuss the characteristics of entrepreneur.						
	(c)	Explain the scope and role of following agencies: i. KIADB ii. SIDBI					

Та	able s	howing the Bloom's Ta	axonomy Outc	Level, Course Out ome	come and Programme	
Question		Bloom's Taxonomy Level		Course	Programme Outcome	
		attached		Outcome	1	
Q.1	(a)	LI		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)	z) L1		2	1, 2	
Q.4	(a)	L1		2	1, 2	
-	(b)	L2		2	1, 2	
	(c)	L3		2	1, 2	
0.5	(a)	L1		2	1, 2	
ζ.υ	(b)	) L2		2	1, 2	
	(c)	L1		4	1, 2	
0.6	(a)	L2		2	8, 11	
	(b)	L1		2	8, 11	
	(c)	L1		4	1, 2	
0.7	(a)	L1		3	11	
<b>X</b>	(h)	I.4		3	11	
0.8	(a)	L1		3	1.2	
Q.0	$(\mathbf{u})$	L1 L3		3	1, 2	
09	(0)	L1		4	6	
Q.)	$(\mathbf{u})$	I 1		4	1.2	
	(0)			4	6	
0.10	$(\mathbf{c})$	L2 I 1		A	6	
Q.10	(a)			т Л	1.2	
	(0)	L2 L1		4	1, 2	
	(0)	LI		4	$1, \angle$	
			Lower o	rder thinking skills		
Bloom's Taxonomy Levels		Remembering	Understa	nding	Applying (Application):	
		(knowledge): $L_1$	(Compreh	when sion): $L_2$ $L_3$		
		Higher order thinking skills				
		Analyzing (Analysis): L <sub>4</sub>	Creating (Synthesis): $L_6$			

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