Enrollment No:	Exam Seat No:
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## C.U. SHAH UNIVERSITY

## Winter Examination-2019

**Subject Name: Dock Harbor and Airport Engineering** 

**Subject Code: 4TE08DHA1 Branch: B.Tech (Civil)** 

Time: 10:30 To 01:30 Marks: 70 **Semester: 8** Date: 13/09/2019

## **Instructions:**

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

Q-1		Attempt the following questions	(14)
	a)	What is approach zone?	(1)
	b)	Define breakwater.	(1)
	c)	What is the runway orientation?	(1)
	d)	Define the terms tidal range.	(1)
	e)	What is the full form of AAI?	(1)
	f)	What are slipways?	(1)
	g)	What is the function of hangar?	(1)
	h)	Enlist major seaports in Gujarat.	(1)
	i)	What are the main components of a terminal building?	(1)
	j)	What is dredging?	(1)
	k)	Draw the sketch of rubber fenders.	(1)
	1)	What is airport grading?	(1)
	m)	What is wind rose diagram?	(1)
	n)	What do you mean by the term visual aid at airport?	(1)
Atten	npt any f	four questions from Q-2 to Q-8	
Q-2		Attempt all questions	(14)
	A)	Explain in detail the effect of weight components in the planning and design of	<b>(7)</b>
		airports. What are the different gear configurations generally used to support the	
		aircraft weight?	
	<b>B</b> )	What are Mooring buoys? What are the component part of a buoy unit? Explain with	<b>(7</b> )
		sketch	
Q-3		Attempt all questions	<b>(14)</b>
	<b>A</b> )	What is ferry? Describe different types of ferries.	<b>(3)</b>
	<b>B</b> )	What are the objectives of regional planning? What are the advantages of regional	<b>(7)</b>
		planning? What are to be collected from regional planning?	
	<b>C</b> )	Write a note on 'disposal of dredged material'	<b>(4)</b>
Q-4		Attempt all questions	<b>(14)</b>
	<b>A</b> )	Draw a neat sketch to show how lighting is done on a runway? Adopt narrow gauge	<b>(7)</b>
		pattern of lighting.	
	<b>B</b> )	What are the different types of lock gates? Explain with sketch the mitre type gate.	<b>(7</b> )
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Q-5		Attempt all questions	(14)
	A)	What are the important wind characteristics? Explain the Beaufort scale and its use.	<b>(7</b> )
	<b>B</b> )	Explain various planning concepts of terminal building.	<b>(4)</b>
	<b>C</b> )	What are the passenger requirements of the terminal building?	(3)
Q-6		Attempt all questions	(14)
•	A)	What are the different classifications of harbors?	<b>(7)</b>
	<b>B</b> )	What is the function of taxiway in airports? Draw cross section of taxiway showing all components.	<b>(7)</b>
Q-7		Attempt all questions	(14)
	A)	What do you understand by mass-haul curve? What information can be obtained from it? Explain the procedure of working with this curve.	(7)
	<b>B</b> )	What is the significance of water transportation compare to other modes of transportation? Explain in detail.	<b>(7)</b>
Q-8		Attempt all questions	(14)
	A)	Describe the corrections to be applied to the calculated basic runway length to get its actual length.	(7)
	B)	Enlist different types of breakwater and describe any one with neat sketch.	<b>(7</b> )

