Enrollment No: _____   Exam Seat No:_____

C.U.SHAH UNIVERSITY
Summer Examination-2018

Subject Name : Dock Harbor And Airport Engineering

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

Semester : 8   **Date : 26/04/2018**   **Time : 02:30 To 05:30**   **Marks : 70**

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)	Define Airport capacity.	(1)
b)	What are the different modes of transportation?	(1)
c)	What is wind Rose Diagram?	(1)
d)	What do you understand by pounding?	(1)
e)	Why Fenders are providing on docking platform?	(1)
f)	What is mean by the basic runway length?	(1)
g)	What are slipways?	(1)
h)	What is the full form of ICAO?	(1)
i)	What is ferry?	(1)
j)	What are mooring buoys?	(1)
k)	What you mean by the term visual aid at airport?	(1)
l)	Define Gryones.	(1)
m)	What is airport Grading?	(1)
n)	What do you understand by the term clapotis?	(1)

Attempt any four questions from Q-2 to Q-8

Q-2	**Attempt all questions**	**(14)**
a)	What is harbor planning? List the factors to be studied during harbor planning. Give guiding principles of harbor planning.	**(7)**
b)	What are the different characteristics of an aircraft which affect planning and design of an airport?	**(7)**
Q-3	**Attempt all questions**	**(14)**
a)	How the water waves are generated? Explain by drawing sketch shallow waves and deep waves	**(7)**
b)	Write short notes on: ii) Zoning laws iv) Land use around airport	**(7)**
Q-4	**Attempt all questions**	**(14)**
a)	What are the different types of lock gates? Explain with sketch the mitre type	**(7)**

gate.

b) Find the design length of runway required. If the length under standard atmospheric condition is 1800 m the actual elevation of the site is 1000 m above MSL. & the airport reference temp. is 20° C. Maximum effective Gradient is 0.5%. **(7)**

Q-5	**Attempt all questions**	**(14)**
a)	Enlist different types of breakwater and describe any one with neat sketch.	**(7)**
b)	What is the function of taxiway in airports? Draw cross section of taxiway showing all components.	**(7)**

Q-6	**Attempt all questions**	**(14)**
a)	List various cargo handling equipment's and explain any two	**(7)**
b)	What do you understand by terminal building? What are the facilities provided in terminal building?	**(7)**

Q-7	**Attempt all questions**	**(14)**
a)	What is the purpose of the navigational aids? Explain any one type of navigational aids.	**(7)**
b)	What do you understand by mass-haul curve? What information can be obtained from it? Explain the procedure of working with this curve.	**(7)**

Q-8	**Attempt all questions**	**(14)**
a)	List different types of dredgers. Explain dipper dredger with nest sketch	**(7)**
b)	Write short notes on: i) Runway lighting ii) Taxiway lighting	**(7)**