

C.U.SHAH UNIVERSITY

Summer Examination-2019

Subject Name: Dock Harbor and Airport Engineering

Subject Code: 4TE08DHA1

Branch: B.Tech (Civil)

Semester: 8

Date: 18/04/2019

Time: 10:30 To 01:30

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) What is wind rose diagram?	1
	b) What is airport grading?	1
	c) Enlist major seaports in India.	1
	d) What do you mean by the term visual aid at airport?	1
	e) Define airport capacity.	1
	f) What are the main components of a terminal building?	1
	g) What is need of breakwater?	1
	h) What is runway orientation?	1
	i) Define the term draft.	1
	j) What is floating dock?	1
	k) What is the function of hanger?	1
	l) What is ferry?	1
	m) What is the full form of AAI?	1
	n) LORAN stands for.....	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 Discuss functions of airport drainage. Describe surface and subsurface drainage system.	7
Q-3	Attempt all questions	(14)
	A Explain in detail the effects of weight components in the planning and design of airports. What are the different gear configuration generally used to support the airport weight?	7
	B What are the important wind characteristics? Explain the Beaufort scale and its use.	7
Q-4	Attempt all questions	(14)
	A What are the objectives of regional planning? What are the advantages of regional planning? What are to be collected from regional planning?	7
	B Why fenders are provided on docking platform? Draw the sketch of	7



- wooden and rubber fenders.
- Q-5** **Attempt all questions** **(14)**
- A** Describe the corrections to be applied to the calculated basic runway length to get its actual length. **7**
- B** What are the different types of lock gate? Explain them with sketch. **7**
- Q-6** **Attempt all questions** **(14)**
- A** Write short note on: **7**
- 1) Airport access system.
- 2) Centralized system of planning.
- B** List various cargo handling equipment's and explain any two. **7**
- Q-7** **Attempt all questions** **(14)**
- A** Write short note on: **7**
- 1) Runway lighting.
- 2) Taxiway lighting.
- B** What are the purpose of the navigational aids? Explain any one types of navigational aids. **7**
- Q-8** **Attempt all questions** **(14)**
- A** What are the objectives of dredging? Explain dipper dredger. **7**
- B** What is the function of taxiway in airports? Draw cross section of taxiway showing all components. **7**

