

Total No. of Questions : 4]

**P8975**

SEAT No. :

[Total No. of Pages : 2

**Oct-22/BE/Insem-38**

**B.E. (Civil)**

**AIRPORT AND BRIDGE ENGINEERING**

**(2019 Pattern) (Semester - VII) (401004 D) (Elective - IV)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) *Answer Q1 or Q2, Q3 or Q4.*
- 2) *Figures to the right indicate full marks.*
- 3) *Use of logarithmic tables, slide rule, Mollier charts, electronic pocket calculator and steam tables is allowed.*
- 4) *Assume suitable data, if necessary.*
- 5) *Neat diagrams must be drawn wherever necessary.*

- Q1) a)** Mention the characteristics of good layout for an Airport. **[4]**
- b) Discuss in brief how Instrument Landing System approach is useful in bad weather condition. **[5]**
- c) Explain the types of imaginary surfaces of airport obstruction with neat sketch. **[6]**

OR

- Q2) a)** Classify the types of Airports. **[5]**
- b) List the basic patterns of runway configurations and explain them with neat sketch. **[5]**
- c) Enlist and explain the Air Traffic Control (ATC) Aids. **[5]**

- Q3) a)** State and explain the factors affecting for site selection of an airport. **[4]**
- b) Define the term basic runway length. Explain briefly various corrections to be applied to obtain actual length of runway. **[5]**
- c) Illustrate how orientation of runway is done using Type I Wind Rose Diagram? **[6]**

OR

**P.T.O.**

- Q4)** a) Identify and explain the characteristics of an Aircraft. [5]
- b) Determine the length of the runway to be provided after i) Correction for elevation and ii) Correction for temperature if runway length required for landing at sea level in standard atmospheric condition is 2500. Aerodrome elevation is 200m and reference temperature is 24 degree Celsius, temperature in the standard atmosphere for 200m is 15 degree Celsius and runway slope is 0.5 %. [5]
- c) Describe any five major elements influencing the planning of airports. [5]

