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SEAT No. :

PC-180

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B.E. (Civil) (Insem.)

AIRPORT AND BRIDGE ENGINEERING

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

Time : 1 Hour] *[Max. Marks : 30*

Instructions to the candidates:

1) ***Answer Q1 or Q2, Q3 or Q4.***
2) ***Neat diagram must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Assume suitable data if necessary.***

Q1) a) Examine suitability of navigation and landing aids- ILS for Airports. **[5]**

b) Enlist essential parts of Aircraft with figure. **[5]**

c) Explain Air Traffic Control (ATC). **[5]**

OR

Q2) a) Discuss the characteristics of layout of Airport. **[5]**

b) Give the functions of ICAO. **[5]**

c) Discuss in brief how Instrument Landing System approach is useful in bad weather condition. **[5]**

Q3) a) 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]**

b) Describe any five major elements influencing the planning of airports. **[5]**

c) What is function of taxiway in airports? Draw cross sections of taxiway showing all components. **[5]**

OR

P.T.O.

Q4) a) Length of runway under standard condition is 1620m with an elevation of 270m having airport reference temperature (ART) is 33° C and having effective gradient is 20 %. Calculate the corrected length of runway. Use and apply necessary checks. **[5]**

b) Explain the types of imaginary surfaces of airport obstruction with neat sketch. **[5]**

c) What are the factors to be considered in the geometric design of a run way. **[5]**