

Printed Pages: 3

NAE-601

**(Following Paper ID and Roll No. to be filled in your
Answer Books)**

Paper ID : 148611

Roll No.

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B.TECH.

Theory Examination (Semester-VI) 2015-16

AIRCRAFT INSTRUMENTS

Time : 3 Hours

Max. Marks : 100

Section-A

**1. Attempt all parts. All Parts carry equal marks. Write answers of each part in short May 30 words.
(10×2=20)**

- a. Name five instruments in cockpit.
- b. How many type of Numbering systems are there? Name all of them.
- c. What is “data conversion”?
- d. What are “logic circuits”?
- e. What are integrated circuits?

(1)

P.T.O.

- f. What is full form of EICAS and GPS?
- g. Define the term “termination” in fibre optics.
- h. What is a microprocessor?
- i. What is “BITE”?
- j. What is a “decoder”?

Section-B

2. Attempt any five question from this section. (5×10=50)

- a. Describe the overall operation of a microprocessor.
- b. What are the principles and operation of common types of displays used in modern aircraft.
- c. What are the advantages and disadvantages of fibre optic data transmission.
- d. Describe the operation of data buses in aircraft systems.
- e. Outline the grouping of electronic instruments in the cockpit and explain any one grouping with the help of a sketch.
- f. Describe the operation and applications of digital to analog converters.

- g. Briefly explain the precautions in handling of components sensitive to electrostatic discharges.
- h. Explain the following:-
- (i) Light emitting diodes
 - (ii) Control terminals

Section-C

Attempt any two of the following

(2×15=30)

3. Describe the following
- (i) Electromagnetic compatibility
 - (ii) Global Positioning System
4. Name the various electronic display systems used in Aircraft. Explain Liquid Crystal Display with a sketch.
5. Write short note on three of the following:-
- (i) TCAS
 - (ii) IRS
 - (iii) ECAM
 - (iv) HIRF
 - (v) EFIS