

Sl. No. : NNN

ಒಟ್ಟು ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ : 9 ]

**CCE RF**

[ ಒಟ್ಟು ಮುದ್ರಿತ ಪುಟಗಳ ಸಂಖ್ಯೆ : 4

Total No. of Questions : 9 ]

[ Total No. of Printed Pages : 4

ಸಂಕೇತ ಸಂಖ್ಯೆ : **73**

**Code No. : 73**

ಇಲ್ಲಿಂದ ಕತ್ತರಿಸಿ

ವಿಷಯ : ಎಲಿಮೆಂಟ್ಸ್ ಆಫ್ ಎಲೆಕ್ಟ್ರಾನಿಕ್ಸ್ ಇಂಜಿನಿಯರಿಂಗ್  
**Subject : ELEMENTS OF ELECTRONICS ENGINEERING**  
( ಹೊಸ ಪಠ್ಯಕ್ರಮ / New Syllabus )  
( ಶಾಲಾ ಅಭ್ಯರ್ಥಿ / Regular Fresh )

ದಿನಾಂಕ : 01. 04. 2017 ]

[ Date : 01. 04. 2017

ಸಮಯ : ಬೆಳಿಗ್ಗೆ 9-30 ರಿಂದ ಮಧ್ಯಾಹ್ನ-12-45 ರವರೆಗೆ ]

[ Time : 9-30 A.M. to 12-45 P.M.

ಪರಮಾವಧಿ ಅಂಕಗಳು : 90 ]

[ Max. Marks : 90

**General Instructions to the Candidate :**

1. This Question Paper consists of 9 objective and subjective types of questions.
2. This question paper has been sealed by reverse jacket. You have to cut on the right side to open the paper at the time of commencement of the examination. Check whether all the pages of the question paper are intact.
3. Follow the instructions given against both the objective and subjective types of questions.
4. Figures in the right hand margin indicate maximum marks.
5. The maximum time to answer the paper is given at the top of the question paper. It includes 15 minutes for reading the question paper.

TEAR HERE TO OPEN THE QUESTION PAPER

ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ತೆರೆದಿರುವುದು ಇಲ್ಲಿ ಕತ್ತರಿಸಿ

Tear here

**RF-0E1013**

[ Turn over

Note : Answer all the questions.

1. Fill in the blanks with the appropriate figure/word(s) by selecting from the choices given in the brackets : 10 × 1 = 10
  - i) An operational amplifier consumes ..... .  
( *high power, very high power, less power* )
  - ii) Arsenic has a ..... .  
( *pentavalent impurity, tetravalent impurity, trivalent impurity* )
  - iii) These elements are essentially required for the manufacture of transistor ..... .  
( *silicon and indium, silicon and sulphur, silicon and germanium* )
  - iv) The safe inverse voltage is kept lower than that of an ordinary diode is called ..... .  
( *Zener diode, PN junction diode, Light emitting diode* )
  - v) A flip-flop is bistable electronic circuit which has ..... .  
( *4 stable states, 3 stable states, 2 stable states* )
  - vi) VLSI circuit has ..... .  
( *less than 400 gates, more than 400 gates, 400 gates* )
  - vii) Linear I.C. is also termed as ..... .  
( *digital I.C., monolithic I.C., hybrid I.C.* )
  - viii) The storage and transfer of a binary information in a digital system is done with the help of ..... .  
( *shift register, buffer register, register* )
  - ix) The use of octal system has been replaced by ..... .  
( *decimal system, binary system, hexadecimal system* )
  - x) An input is applied to a NOT gate, an output will be ..... .  
( *zero, one, two* )
2.
  - a) Define semiconductor. 2
  - b) Explain *P*-type and *N*-type materials. 4
  - c) Draw neat circuit diagrams of *PN* junction diode on forward and reversed bias conditions. 4
3.
  - a) What is a transistor ? 2
  - b) Mention the types of transistors and write their symbols. 4
  - c) List the applications of transistors. 4

4. a) Define amplifier. 2  
b) How an amplifier circuits are classified on the basis of frequency ? 4  
c) Draw a neat sketch of CRT and name the parts. 4
5. a) What do you mean by I.C. ? 2  
b) Differentiate between discrete components circuit and integrated circuit. 4  
c) Describe monolithic I.C. and hybrid I.C. 4
6. a) Define binary system. 2  
b) Convert 1512 into binary system. 4  
c) Convert the following into decimal numbers : 4  
i) 10111  
ii) 110000
7. a) What is a logic circuit ? 2  
b) Name any four kinds of gates. 4  
c) Explain the terms 'register' and 'counter'. 4
8. a) Define flip-flop. 2  
b) Draw a neat symbol of flip-flop and write its truth table. 4  
c) List the main types of flip-flops. 4
9. a) What is a microprocessor ? 2  
b) Give any two uses of 8085. 2  
c) Write short notes on any *two* of the following : 6  
i) OP-Amp  
ii) LCD  
iii) LED.
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