

Sl. No. : TTTT

ಒಟ್ಟು ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ : 9 ]

Total No. of Questions : 9 ]

ಸಂಕೇತ ಸಂಖ್ಯೆ : 73

**CCE RF**  
**CCE RR**

[ ಒಟ್ಟು ಮುದ್ರಿತ ಪುಟಗಳ ಸಂಖ್ಯೆ : 4

[ Total No. of Printed Pages : 4

**Code No. : 73**

ಇಲ್ಲಿಂದ ಕತ್ತರಿಸಿ

ವಿಷಯ : ಎಲಿಮೆಂಟ್ಸ್ ಆಫ್ ಎಲೆಕ್ಟ್ರಾನಿಕ್ಸ್ ಇಂಜಿನಿಯರಿಂಗ್

**Subject : ELEMENTS OF ELECTRONICS ENGINEERING**

( ಹೊಸ ಪಠ್ಯಕ್ರಮ / New Syllabus )

( ಶಾಲಾ ಅಭ್ಯರ್ಥಿ & ಪುನರಾವರ್ತಿತ ಶಾಲಾ ಅಭ್ಯರ್ಥಿ / Regular Fresh & Regular Repeater )

ದಿನಾಂಕ : 24. 03. 2018 ]

[ Date : 24. 03. 2018

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 ತೆರೆಯಲು ಇಲ್ಲಿ ಕತ್ತರಿಸಿ

Tear here

**RF & RR-405**

[ 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) ..... IC contains more than 400 gates.  
( VLSI, LSI, MSI )
- ii) An IC whose output is not proportional to the input is known as .....  
( Linear, Non-linear, Thick )
- iii) Hybrid IC is a combination of .....  
( Monolithic & Thin Film IC, Monolithic Thick Film IC, Thick Film & Thin Film IC )
- iv) Op-Amp is a ..... gain amplifier.  
( high, low, medium )
- v) NAND and NOR gate IC's are called .....  
( Universal logic gate, Inverter logic gate, Converter logic gate )
- vi) Digital Integrated Circuit, VLSI has .....  
( more than 400 gates, less than 400 gates, 100 gates )
- vii) In octal number system, the base is .....  
( 8, 2, 16. )
- viii) ..... is used to store binary word temporarily.  
( Register, Op-Amp, Transistor )
- ix) If Inputs of the R.S. flip-flops are zero and zero then its output is .....  
( Last value, Set, Reset )
- x) Intel 8085 microprocessor has a word length of .....  
( 8 bits, 16 bits, 20 bits )
2. a) List the applications of an IC. 2  
b) Write the important characteristics of an IC. 3  
c) What are the advantages of an Integrated Circuit over discrete components ? 5
3. a) Define VLSI. 2  
b) Describe hybrid IC and mention its types. 3  
c) Draw a neat block diagram of CRO. 5

4. a) Define Op-Amp. 2  
b) List the advantages and applications of Op-Amp. 3  
c) Draw a neat block diagram of an operational amplifier and explain briefly. 5
5. a) Write the numbers which are used in decimal number system. 2  
b) Explain binary number system. 3  
c) Convert  $48_{(10)}$  into a binary number and convert  $10111_{(2)}$  into decimal number. 5
6. a) Name two universal gates. 2  
b) Compare NOR and NOT gate's truth table. 3  
c) Explain AND gate with a neat symbol and verify its truth table. 5
7. a) Write any two applications of flip-flop. 2  
b) List any three uses of cathode ray oscilloscope. 3  
c) Draw a neat block diagram of R.S. flip-flop and write its truth table. 5
8. a) What do you mean by shift register ? 2  
b) List the applications of shift register. 3  
c) Draw a neat block diagram of SIPO shift register and explain briefly. 5
9. a) Name different types of counters. 2  
b) What is an oscillator ? List various types of oscillators. 3  
c) Write short notes on the following : 5  
i) Flip-flop  
ii) Microprocessor.
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