B **Sl. No. : CCC**

ಒಟ್ಟು ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ : 9] [ಒಟ್ಟು ಮುದ್ರಿತ ಪುಟಗಳ ಸಂಖ್ಯೆ : 4

Total No. of Questions : 9] [Total No. of Printed Pages : 4

ಸಂಕೇತ ಸಂಖ್ಯೆ : 73 **Code No. : 73**

CCE RF
CCE RR

REVISED & UNREVISED

ಮುದ್ರಿತ ಪುಟಗಳನ್ನು ಪರಿಶೀಲಿಸಿ

ವಿಷಯ : ಎಲಿಮೆಂಟ್ಸ್ ಆಫ್ ಎಲೆಕ್ಟ್ರಾನಿಕ್ಸ್ ಇಂಜಿನಿಯರಿಂಗ್

Subject : ELEMENTS OF ELECTRONICS ENGINEERING

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

ದಿನಾಂಕ : 23. 03. 2019] [Date : 23. 03. 2019

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

TEAR HERE TO OPEN THE QUESTION PAPER
ಪ್ರಶ್ನೆ–ಪತ್ರಿಕೆಯನ್ನು ತೆರೆಯಲು ಇಲ್ಲಿ ಹರಿಯಿರಿ

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

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 consumes ..... power.
   (a) more (b) less (c) none of these.

   ii) Normally ICs are made of ..... .
   (a) Aluminium (b) Copper (c) Silicon.

   iii) ICs are generally in the form of ..... .
   (a) Flat pack (b) Triangle (c) Sphere.

   iv) IC 741 is an example of ..... .
   (a) MOSFET (b) Op-Amp (c) FET.

   v) Op-Amp has ..... impedance.
   (a) low (b) medium (c) high.

   vi) Octal number system has ..... logic symbols.
   (a) 8 (b) 4 (c) 6.

   vii) If the inputs of NAND gate IC are 1 & 1 then its output is ..... .
   (a) 1 (b) 0 (c) 2.

   viii) Binary number 0111 represents ..... .
   (a) 9 (b) 8 (c) 7.

   ix) ..... is used to store binary word temporary.
   (a) Buffer register (b) SISO register (c) SIPO register.

   x) ..... is used to count number of clock pulses arrived at its input.
   (a) Inverter (b) Counter (c) Converter.

2. a) List any two active components. 2
   b) Explain monolithic IC. 3
   c) Draw a neat sketch to show the construction of monolithic IC. 5

3. a) Define the term SSI. 2
   b) Describe how registors are fabricated in IC. 3
   c) Draw a neat sketch of CRT. 5

4. a) List types of ICs based on manufacturing process. 2
   b) Describe how hybrid ICs are differ from monolithic IC. 3
   c) Why ICs need less power to operate and more reliable than discrete components ? 5

5. a) What is meant by an Op-Amp ? 2
   b) Explain Inverting amplifier. 3
   c) Draw the block diagram of an Op-Amp and explain input stage. 5

6.	a)	Name the IC which inverts input data.	2
	b)	Describe about universal logic gates.	3
	c)	Determine the values of	
		i) 6 – 4 by using binary subtraction method	
		ii) 24 + 8 by using binary addition method.	5
7.	a)	How many digits are used in octal number system ?	2
	b)	Why binary number system is most popular ?	3
	c)	Convert octal numbers $(512)_8$ and $(1035)_8$ into decimal numbers.	5
8.	a)	Define the term flip-flop.	2
	b)	Explain JK flip-flop.	3
	c)	Draw a neat diagram of RS flip-flop using NAND gates and explain.	5
9.	a)	What do you mean by microprocessor ?	2
	b)	Explain 8085 microprocessor.	3
	c)	Explain Up and Down counter.	5