

Roll
No.

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Serial No. of
Q. C. A. B.

ಒಟ್ಟು ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ : 9]
Total No. of Questions : 9]

[ಒಟ್ಟು ಮುದ್ರಿತ ಪುಟಗಳ ಸಂಖ್ಯೆ : 16
[Total No. of Printed Pages : 16

ಸಂಕೇತ ಸಂಖ್ಯೆ : **73**

ವಿಷಯ : ಎಲಿಮೆಂಟ್ಸ್ ಆಫ್ ಎಲೆಕ್ಟ್ರಾನಿಕ್ಸ್ ಇಂಜಿನಿಯರಿಂಗ್

Code No. : **73**

Subject : **ELEMENTS OF ELECTRONICS ENGINEERING**

ದಿನಾಂಕ : 23. 06. 2012]

[Date : 23. 06. 2012

ಸಮಯ : ಬೆಳಿಗ್ಗೆ 09-30 ರಿಂದ ಮಧ್ಯಾಹ್ನ-12-45 ರವರೆಗೆ]

[Time : 09-30 A.M. to 12-45 P.M.

ಪರಮಾವಧಿ ಅಂಕಗಳು : 90]

[Max. Marks : 90

FOR OFFICE USE ONLY

Q. No.	Marks	Q. No.	Marks	Q. No.	Marks	Q. No.	Marks	Q. No.	Marks
1.		×		×		×		×	
2.		×		×		×		×	
3.		×		×		×		×	
4.		×		×		×		×	
5.		×		×		×		×	
6.		×		×		×		×	
7.		×		×		×		×	
8.		×		×		×		×	
9.		×		×		×		×	
×		×		×		×		×	
×		×		×		×		×	
×		×		×		×		×	
×		×		×		×		×	
Total Marks									
Total Marks in words							Grand Total		
1. ✓							✓		
2. ✓									
Signature of Evaluators			Registration No.			Signature of the Deputy Chief		Signature of the Room Invigilator	

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General Instructions :

- i) The Question-cum-Answer Booklet consists of objective and subjective types of questions having 9 questions.
- ii) Space has been provided against each objective type question. You have to choose the correct choice and write the complete answer in the space provided.
- iii) For subjective type questions enough space for each question has been provided. You have to answer the questions in the space.
- iv) Follow the instructions given against both the objective and subjective types of questions.
- v) Candidate should not write the answer with pencil. Answers written in pencil will not be evaluated. (Except Graphs, Diagrams & Maps)
- vi) In case of Multiple Choice, Fill in the blanks and Matching questions, scratching / rewriting / marking is not permitted, thereby rendering to disqualification for evaluation.
- vii) For reading the questions 15 minutes of extra time has been provided.

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 : $10 \times 1 = 10$

- i) Germanium is a

(pentavalent material, tetravalent material, trivalent material)

Ans : _____

- ii) The middle layer of PN junction transistor is

(normally doped, heavily doped, lightly doped)

Ans : _____

iii) A very sensitive diode is

(*germanium diode, silicon diode, PN junction diode*)

Ans : _____

iv) Linear IC is also known as

(*digital IC, hybrid IC, monolithic IC*)

Ans : _____

v) VLSI circuit has

(*400 gates, less than 400 gates, more than 400 gates*)

Ans : _____

vi) The cost of the Op-Amp is

(*low , high, very low*)

Ans : _____

vii) The binary system consists of two digits only, that is

(*0 and 9, 1 and 2, 0 and 1*)

Ans : _____

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viii) A microprocessor consists of a number of

(SSI & MSI, LSI & VLSI, LSI & MSI)

Ans : _____

ix) Intel 8085 has a word length of

(16 bits, 4 bits, 8 bits)

Ans : _____

x) A logical block is used for storage and transfer of binary information in a digital system is known as

(register, shift register, buffer register)

Ans : _____

2. a) What do you understand by P-type material ?

3

b) Define P-N junction diode and draw a symbolic diagram.

3

c) Differentiate between germanium diode and silicon diode.

4

[Turn over

3. a) What is LED ? Give any two applications of LED. 4

b) Define the term 'rectification'. Draw a neat circuit diagram of half-wave rectifier.

4

c) List the two types of transistors.

2

4. a) What is meant by IC ?

2

[Turn over

5. a) Define an operational amplifier.

2

b) Explain the functions of differential amplifier (input stage) and output stage of an Op-Amp.

4

c) List any four applications of Op-Amp.

4

6. a) What are the two types of IC packages ? 2

b) Draw the neat sketches of the following IC packages : 6

i) TO-5

ii) DIL.

c) Write a neat symbol of IC.

2

7. a) What do you mean by hexadecimal number system ?

2

b) Convert 1512 into binary number.

5

c) Convert 815g into decimal number.

3

8. a) Define a microprocessor.

2

- b) List any three applications of microprocessor.

3

- c) Write the symbolic diagram and truth tables of the following gates :

5

- i) NOT
ii) AND.

9. a) What is a flip-flop ? 2

b) Give any two applications of flip-flop. 2

c) Write short notes on : 6

i) Counter

ii) Register.
