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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 : 06. 04. 2013]

[Date : 06. 04. 2013

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

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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		

[Turn over

General Instructions :

- i) The Question-cum-Answer Booklet consists of 9 objective and subjective types of 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 × 1 = 10

- i) The middle layer of *P-N* junction transistor is

(*lightly doped, heavily doped, normally doped*)

Ans : _____

- ii) Germanium is a

(*trivalent material, tetravalent material, pentavalent material*)

Ans : _____

- iii) A very sensitive diode is

(*P-N junction diode, silicon diode, germanium diode*)

Ans : _____

iv) VLSI circuit has

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

Ans : _____

v) Linear I.C. is also known as

(digital I.C., monolithic I.C. , hybrid I.C.)

Ans : _____

vi) A microprocessor consists of

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

Ans : _____

vii) The cost of an Op-Amp is

(high, low, very high)

Ans : _____

viii) Intel 8085 has a word length of

(8 bits, 4 bits, 16 bits)

Ans : _____

- b) Define the term 'rectification'. Draw a neat circuit diagram of half-wave rectifier and label the parts. 4

- c) Name the two types of transistors. 2

3. a) What do you mean by *P*-type material ? 2

- b) Define *P-N* junction diode and draw a neat symbol. 4

- c) List any four differences between germanium and silicon diodes.

4

4. a) Define an operational amplifier.

2

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

4

[Turn over

c) Mention any four characteristics of Op-Amp. 4

5. a) What do you mean by I.C. ? 2

b) Define monolithic I.C. and thin-film I.C.

4

c) Explain linear I.C. and non-linear I.C.

4

6. a) Define hexadecimal number system.

2

[Turn over

b) Convert 815_8 into decimal number.

3

c) Convert 1512 into binary number.

5

7. a) Name two types of I.C. packages.

2

b) Write a neat symbol of I.C.

2

c) Draw the neat sketches of the following I.C. packages :

6

i) T 0-5

ii) DIL.

8. a) Define flip-flop.

2

b) Give any two applications of flip-flop.

2

c) Write short notes on the following :

6

i) Counter

ii) Register.

[Turn over

9. a) What is a microprocessor ? 2

b) List any three applications of microprocessor. 3

c) Write the symbols and truth tables of the following gates :

5

i) NOT

ii) AND.

