CCE-II-RR/PF(A)/888/4029

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ಜೂನ್ 2024 ರ ಪರೀಕ್ಷೆ - 2
JUNE 2024 EXAMINATION - 2

ಒಟ್ಟು ಮುದ್ರಿತ ಪುಟಗಳ ಸಂಖ್ಯೆ : 8]

Total No. of Printed Pages : 8]

ಒಟ್ಟು ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ : 8]

Total No. of Questions : 8]

CCE RR/PF
FULL SYLLABUS

Question Paper Serial No.

ಸಂಕೇತ ಸಂಖ್ಯೆ : **51**

Code No. : 51

ವಿಷಯ : ಎಲಿಮೆಂಟ್ಸ್ ಆಫ್ ಎಲೆಕ್ಟ್ರಿಕಲ್ ಇಂಜಿನಿಯರಿಂಗ್ - IV

Subject : ELEMENTS OF ELECTRICAL ENGINEERING-IV

(ಶಾಲಾ ಪುನರಾವರ್ತಿತ ಅಭ್ಯರ್ಥಿ / ಖಾಸಗಿ ಅಭ್ಯರ್ಥಿ)
(Regular Repeater / Private Fresh)

ದಿನಾಂಕ : 19. 06. 2024] [Date : 19. 06. 2024

ಸಮಯ : ಬೆಳಗ್ಗೆ 10-15 ರಿಂದ ಮಧ್ಯಾಹ್ನ 1-30 ರವರೆಗೆ] [Time : 10-15 A.M. to 1-30 P.M.

ಗರಿಷ್ಠ ಅಂಕಗಳು : 80] [Max. Marks : 80

19. 06. 2024

TEAR HERE TO OPEN THE QUESTION PAPER
ಪ್ರಶ್ನೆಪತ್ರಿಕೆಯನ್ನು ತೆರೆಯಲು ಇಲ್ಲಿ ಕತ್ತರಿಸಿ

Cut here /ಇಲ್ಲಿ ಕತ್ತರಿಸಿ

General Instructions to the Candidate :

1. This question paper consists of 8 questions in all.
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 ***(Follow the arrow)***. **Do not cut the left side to open the paper.** Check whether all the pages of the question paper are intact.
3. Follow the instructions given against the questions.
4. Figures in the right hand margin indicate maximum marks for the questions.
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.
6. Ensure that the Version of the question paper distributed to you and the Version printed on your admission ticket is the same.

Tear here

Note : Answer *all* the questions.

1. **Four alternatives are given for each of the following questions / incomplete statements. Select the most appropriate alternative and write it in the answer book along with its alphabet** : 10 × 1 = 10

i) For a sine wave peak factor is

(A) 1·41 (B) 1·11

(C) 0·637 (D) 0·707

ii) The maximum value of alternating current is called

(A) Sine wave (B) Form factor

(C) Amplitude (D) Frequency

iii) An alternator converts

(A) Mechanical energy into D.C. energy

(B) Electrical energy into Mechanical energy

(C) Mechanical energy into A.C. electrical energy

(D) Mechanical energy into Mechanical energy

iv) The phenomenon of electromagnetic induction is found by

(A) Fleming's right hand rule

(B) Faraday

(C) Ohm

(D) Lenz

v) The transformer works on the principle of

(A) Ohm's law

(B) Mutual induction

(C) Fleming's left hand rule

(D) Faraday's law

vi) The core of the transformer is made of

(A) Mild steel (B) Cast iron

(C) Iron (D) Silicon steel

vii) Which one of the power plant uses water as a fuel ?

(A) Nuclear power plant

(B) Hydroelectric power plant

(C) Diesel power plant

(D) Thermal power plant 

viii) Which one among the following is a renewable source of energy ?

(A) Hydroelectric power

(B) Nuclear power

(C) Solar power

(D) Diesel power 

ix) A pure semiconductor is called

(A) Intrinsic semiconductor

(B) Extrinsic semiconductor

(C) *P*-type semiconductor

(D) *N*-type semiconductor 

x) A diode is having

(A) three terminals (B) four terminals

(C) two terminals (D) one terminal

2. a) Explain form factor. 2

b) Explain the following terms : 3

i) Frequency

ii) Power factor

c) Draw a neat diagram of sine wave and mark the following : 5

i) Amplitude

ii) Positive half cycle.

3. a) Define A.C. Generator. 2

b) Mention any six applications of A.C. Generator. 3

c) Draw the neat diagram of squirrel cage induction motor and label the parts. 5

4. a) List the different types of diode. 2

   b) Write the difference between auto transformer and regular transformer. 3

   c) Draw the neat diagram of transformer and label the parts. 5

5. a) Write any two parts of hydroelectric power plant. 2

   b) Write a short note on wind power plant. 3

   c) Draw a neat diagram of solar power plant and label the parts. 5

6. a) Explain diode. 2

   b) Write the difference between renewable and non-renewable sources of energy. 3

   c) With neat sketch explain forward biasing of diode. 5

7. a) Write the applications of diode. 2

   b) Explain the following terms : 3

      i) Average value

      ii) Cycle

   c) Explain with neat sketch mutually induced e.m.f. 5

8. a) Draw the symbolic representation of *N-P-N* transistor and label the terminals.  2

b) How are the A.C. motors classified ? 3

c) Draw a neat diagram of electric iron and label the parts.   5