

1-7-12
4/2011 to 3/2011
EEA/507

2012

Series



4/2011 to 3/2011
Dec 1-7-12

ELECTRICAL ENGINEERING Paper III

Time : 150 Minutes

Max. Marks : 150

INSTRUCTIONS

1. Please check the Test Booklet and ensure that it contains all the questions. If you find any defect in the Test Booklet or Answer Sheet, please get it replaced immediately.
2. The Test Booklet contains 150 questions. Each question carries **one** mark.
3. The Test Booklet is printed in four (4) Series, viz. A B C D. The Series, A or B or C or D is printed on the right-hand corner of the cover page of the Test Booklet. Mark your Test Booklet Series A or B or C or D in Part C on side 1 of the Answer Sheet by darkening the appropriate circle with Blue/Black Ball point pen.

Example to fill up the Booklet Series

If your Test Booklet Series is A, please fill as shown below :



If you have not marked the Test Booklet Series at Part C of side 1 of the Answer Sheet or marked in a way that it leads to discrepancy in determining the exact Test Booklet Series, then, in all such cases, your Answer Sheet will be invalidated without any further notice. No correspondence will be entertained in the matter.

4. Each question is followed by 4 answer choices. Of these, you have to select one correct answer and mark it on the Answer Sheet by darkening the appropriate circle for the question. If more than one circle is darkened, the answer will not be valued at all. Use Blue/Black Ball point pen to make heavy black marks to fill the circle completely. Make **no** other stray marks.

e.g. : If the answer for Question No. 1 is Answer choice (2), it should be marked as follows :



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C

4/2011 to 31/12/2011
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e.g. : If the answer for Question No. 1 is Answer choice (2), it should be marked as follows :





5. Mark Paper Code and Roll No. as given in the Hall Ticket with Blue/Black Ball point pen by darkening appropriate circles in Part A of side 1 of the Answer Sheet. Incorrect/not encoding will lead to **invalidation** of your Answer Sheet.

Example : If the Paper Code is **027**, and Roll No. is **95640376** fill as shown below :

Paper Code

Roll No.

0	2	7
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9	5	6	4	0	3	7	6
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Please get the signature of the Invigilator affixed in the space provided in the Answer Sheet. An Answer Sheet without the signature of the Invigilator is liable for **invalidation**.
7. The candidate should **not** do rough work or write any irrelevant matter in the Answer Sheet. Doing so will lead to **invalidation**.
8. Do **not** mark answer choices on the Test Booklet. Violation of this will be viewed seriously.
9. Before leaving the examination hall, the candidate should hand over the original OMR Answer Sheet (top sheet) to the Invigilator and carry the bottom sheet (duplicate) for his/her record, failing which disciplinary action will be taken.
10. Use of whitener is prohibited. If used, the answer sheet is liable for invalidation.

1. In hydropower plants
 - (1) initial cost is high and operating cost is low
 - (2) initial cost as well as operating cost are high
 - (3) initial cost is low and operating cost is high
 - (4) initial cost as well as operating cost are low
2. Heavy water implies
 - (1) H_2O
 - (2) B_2O
 - (3) W_2O
 - (4) D_2O
3. The rotor used in alternator for hydroelectric station is
 - (1) salient pole rotor
 - (2) cylindrical rotor
 - (3) non-salient pole rotor
 - (4) round rotor with ac excitation
4. Water hammer is developed in
 - (1) penstock
 - (2) turbine
 - (3) surge tank
 - (4) alternator
5. Moderator is used to
 - (1) absorb neutrons
 - (2) reduce the speed of neutrons
 - (3) accelerate the speed of neutrons
 - (4) stop the chain reaction
6. Coolants used in reactors should have _____ melting point and _____ boiling point.
 - (1) low, low
 - (2) low, high
 - (3) high, low
 - (4) high, high
7. Nuclear power plants are used as _____ load plants.
 - (1) base
 - (2) peak
 - (3) fluctuating
 - (4) electric traction
8. In a thermal power plant, the overall efficiency is low due to low efficiency of
 - (1) boiler
 - (2) steam turbine and condenser
 - (3) alternator
 - (4) non-salient pole motor
9. A positive pressure develops in the penstock if the alternator load is suddenly
 - (1) decreased
 - (2) increased
 - (3) made fluctuating
 - (4) short-circuited
10. Nuclear reactors generally employ
 - (1) fission
 - (2) fusion
 - (3) both fission and fusion
 - (4) None of the above

