
PACE Junior Science College

ANDHERI / BORIVALI / DADAR / NERUL / POWAI / THANE

STD : XII
DATE : 25/11/2013

PRELIM EXAM - I
ELECTRICAL MAINTENANCE

MARKS:80
TIME : 3 ½ hr

ANSWER KEY

PAPER- I

Total : 40 marks

Q.1 Attempt any four

04 mks

- A. 1. Depreciation factor
- B. 2. Less than
- C. 2. cleat
- D. 3. 1/5000
- E. 3. Suspension
- F. 1. Heating

Q.2 Attempt any three

06mks

- A. 2 Marks[drawing diagram 1&1/2 marks and labeling ½ marks]
- B. 2 Marks [drawing diagram 1&1/2 marks and labeling ½ marks]
- C. ½ Mark for each symbol
- D. 2 Marks [drawing diagram 1&1/2 marks and labeling ½ marks]
- E. 2 Marks [drawing diagram 1&1/2 marks and labeling ½ marks]

Q.3 Attempt any Three

06 mks

- A. Explanation - 2 Marks
- B. 2 points - 1 Mark each
- C. i) Definition - 1 Mark
ii) Definition - 1 Mark
- D. Explanation – 1&1/2 Mark, Advantage – 1/2 Mark
- E. Diagram – 1/2 Mark, Explanation – 1&1/2 Mark

Q.4 Attempt any Two

06 mks

- A. Six points - ½ Mark each
- B. Types – 2 Mark
Explanation with diagram –1/ 2 Mark
- C. Diagram - 1Mark
Explanation – 2 Marks

Q.5 Attempt any Two

06 mks

- A. 7/22 PVC Cu. Wire. – Meaning 1Mark
S.W.G measurement - $1\frac{1}{2}$ Mark
- B. Diagram - 1 Mark
Construction - 1 Mark
Working - 1Mark
- C. Diagram - 1Mark
Construction - 2Mark

Q.6 Attempt any Two

12 mks

- A. Test – 2& 1/2marks
Explanation of one with diagram – 3&1/2 Marks
- B. i) 3 Marks
ii) Diagram – 1 Mark
Notes – 2 Marks
- C. Types of wiring system – 2&1/2 Marks
Comparison table (7points) – 3&1/2 Marks

PAPER- II

Total : 40 marks

Q.1 CHOOSE THE CORRECT ALTERNATIVE (any 4)

04 mks

- A. 2. Two
- B. 3. Synchronization
- C. 2. Hunting
- D. 1. Eddy current
- E. 2. 100
- F. 2. Full load current

Q.2 Attempt Any 3

06 mks

- A. 4 points – 2 Marks
- B. Diagram – 1/2 Mark
Explanation – 1&1/2 Mark
- C. Difference - 4 points - 2 Marks
- D. Any four types of starters – 2 Marks
- E. 4 points – 2 Marks

Q.3 Attempt Any 3

06 mks

- A. Applications – 2 Marks
- B. Explanation – 2 Marks
- C. Diagram – 1/2 Marks
Explanation – 1&1/2 Marks
- D. Buchholz Relay – 1 Mark
Breather – 1 Mark
- E. $\frac{1}{2}$ Mark each

Q.4 Attempt any two

06mks

- A. 6 points - 3 Marks
- B. 2 Marks explanation&1 mark for diagram
- C. 3 conditions - 3 Marks

Q.5 Attempt any two

06mks

- A. Diagram – 1 mark
Explanation - 2 Marks

- B. Diagram – 1 mark
Explanation - 2 Marks
- C. Diagram - 1Mark
Explanation - 2Marks

Q.6 Attempt any two

12mks

- A. 1 Mark for two causes.
Page No. 126 from EM notes.
- B. 6 points – 6 Marks
- C. Diagram – 2 Marks
Explanation – 3 Marks
Error – 1 Marks