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| **Text  Description automatically generated** | |
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| **FIRST TERM EXAMINATION (2021-22)**  **ANSWER KEY** | |
| **Subject: Physics**  **Grade: XII** | Max. Marks:35Time:90mins |

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| **SECTION A** | | |
| **1** | **d.** | zero |
| **2** | **a** | 8 cm from q1 |
| **3** | **b.** | Zero and minimum |
| **4** | **a.** | 3C |
| **5** | **a.** | F/2 |
| **6** | **b.** | Total charge inside the surface must be zero |
| **7** | **b.** | charge on the plates increases K times |
| **8** | **a.** | All four resistances are approximately equal |
| **9** | **c.** | 40W |
| **10** | **d.** | copper decreases and that of silicon increases |
| **11** | **a.** |  |
| **12** | **b.** | 6 Ω |
| **13** | **b.** | 4: 1 |
| **14** | **b.** | Law of conservation of energy |
| **15** | **a.** | vertical |
| **16** | **d.** | Small couple per unit twist |
| **17** | **a.** | 1: |
| **18** | **b.** | inside the magnet the lines go from north to south pole of the magnet |
| **19** | **c.** | π/6 |
| **20** | **a.** | maximum in situation (i) |
| **21** | **b.** | Anti-clockwise, clockwise , clockwise |
| **22** | **d.** | 16 volt |
| **23** | **b.** | 1.414 |
| **24** | **a.** | 4:5 |
| **25** | **b.** | 13 V |
| **SECTION B** | | |
| **26** | **a.** | 10-4 Nm |
| **27** | **b.** |  |
| **28** | **d.** | Zero |
| **29** | **b.** |  |
| **30** | **b.** | 180× 10–6 J |
| **31** | **c.** | decreasing R |
| **32** | **d.** | more than Iv |
| **33** | **b.** |  |
| **34** | **a.** | +1V |
| **35** | **b.** | 3 Ω |
| **36** | **a.** | 0.8 V/m |
| **37** | **d.** | all of the above |
| **38** | **a.** | (B) and (D), respectively |
| **39** | **b.** |  |
| **40** | **c.** | zero |
| **41** | **c.** |  |
| **42** | **c.** | 30π |
| **43** | **b.** | energy losses due to eddy currents may be minimized |
| **44** | **b.** | increase |
| **45** | **c.** | A is true but R is false. |
| **46** | **a.** | Both A and R are true and R is the correct explanation of A |
| **47** | **a.** | Both A and R are true and R is the correct explanation of A |
| **48** | **a.** | Both A and R are true and R is the correct explanation of A |
| **49** | **b.** | Both A and R are true but R is not the correct explanation of A. |
| **SECTIONC** | | |
| **50** | **c.** |  |
| **51** | **a.** | - |
| **52** | **b.** | Minimum |
| **53** | **a.** | zero |
| **54** | **b.** | V4 only |
| **55** | **b.** | Inductive |