**WINTER 2022 QUESTION BANK**

**CIRCUIT NETWORK THEORY**

**3ND SEM, ELECTRICAL**

**2MARKS QUESTION**

1. **WHAT IS FORM FACTOR?**
2. **WHAT DO YOU MEAN BY BANDWIDTH?**
3. **WHAT IS BAND-STOP FILTER?**
4. **DEFINE RECIPROCITY THEOREM?**
5. **DEFINE RELUCTANCE?**
6. **DEFINE SELECTIVITY?**
7. **DEFINE COFFECIENT OF COUPLING?**
8. **WHAT DO YOU MEAN BY APPARENT POWER?**
9. **WHAT DO YOU MEAN BY TRANSMISSION(ABCD) PARAMETERS?**
10. **STATE LENZ’S LAW?**
11. **WHAT IS RESONANCE?**
12. **WHAT IS ACTIVE ELEMENT AND PASSIVE ELEMENT?**
13. **STATE KVL AND KCL?**
14. **STATE MAXIMUM POWER TRANSFER THEOREM?**
15. **WHAT IS NODAL ANALYSIS?**
16. **WHAT IS MESH ANALISIS?**
17. **WHAT IS BAND PASS FILTER?**
18. **FIND THE HYBRID PARAMETERS FOR THE TWO PORT NETWORK?**
19. **WHAT DO YOU MEAN BY IDEAL CONSTANT VOLTAGE SOURCE AND CURRENT SOURCE?**
20. **WHAT DO YOU MEAN BY SUPERNODE?**
21. **DIFFERENITATE BETWEEN CIRCUIT AND NETWORK?**
22. **WHAT IS B-H CURVE?**
23. **STATE NORTON AND THEVENIN THEOREM?**
24. **WHAT IS PERMESABILITY?**

**LONG QUESTION ANSWERE**

1. **STATE AND EXPLAIN RELATION BETWEEN LINE AND PHASE QUANTITIES IN DELTA CONDITION?**
2. **DRAW THE POWER TRIANGLE FOR RL SERIES CIRCUIT ANS STATE THE EXPRESSION FOR ACTIVE, REACTIVE AND APPARENT POWER?**
3. **EXPLAIN ABOUT DIFFERENT STEPS FOR SOLVING A NETWORK BY NORTONS THEOREM?**
4. **EXPLAIN CONSTANT K-HIGH-PASS FILTER WITH DIAGRAM?**
5. **STATE AND EXPLAIN MAXIMUM POWER TRANSFER THEOREM?**
6. **STATE AND EXPLAIN Z PARAMETERS.**
7. **DERIVE THE TRANSIENT CURRENT IN RC SERIES CIRCUIT ASSUMING INITIAL CHARGE ON CAPACITOR IS ZERO?**
8. **DISCUSS BRIEFLY THE FERRO MAGNETIC MATERIAL?**
9. **WRITE THE ANALOGY BETWEEN THE ELECTRIC AND MAGNETIC CIRCUIT?**
10. **DESIGN A HIGH PASS FILTER HAVING A CUT-OFF FREQUENCY OF 1KHZ WITH A LOAD RESISTANCE OF 600 OHM.**