9. (a) What is ALOHA ? Explain CSMA protocol in detail. 6

(b) Explain LAN in detail. 7

OR

10. (a) Explain TCP/IP model. 7

(b) Explain CSMA/CD protocol. 6

11. Explain various data acquisition systems in power system. 14

OR

12. Design microprocessor based instrument system in power system. 14

NTK/KW/15/7548

Faculty of Engineering & Technology
Seventh Semester B.E. (Electrical Engg.) (C.B.S.)
Examination
ELECTIVE–I : I.T. & ITS APPLICATION IN POWER SYSTEM CONTROL

Time—Three Hours] [Maximum Marks—80

INSTRUCTIONS TO CANDIDATES

(1) All questions carry marks as indicated.

(2) Solve Question No. **1 OR** Questions No. **2**.

(3) Solve Question No. **3 OR** Questions No. **4**.

(4) Solve Question No. **5 OR** Questions No. **6**.

(5) Solve Question No. **7 OR** Questions No. **8**.

(6) Solve Question No. **9 OR** Questions No. **10**.

(7) Solve Question No. **11 OR** Questions No. **12**.

(8) Assume suitable data wherever necessary.

(9) Illustrate your answers wherever necessary with the help of neat sketches.

(10) Use of non-programmable calculator is permitted.

1. (a) How Data Acquisition and Supervisory Control helps in Power System ? 6

(b) What are the real time issues on signal transmission and control ? 7

OR

2. (a) What are the different Intelligence System for monitoring of Power System ? 7

(b) How power flow can be controlled in Real Time Process ? 6

3. (a) Explain the concept of Energy Auditing in modern power system. 7

(b) Write in detail, 1ux meter and thermocouple based temperature indicator in case of Energy Auditing. 7

OR

4. (a) What is the need of Energy Conservation and Management ? 7

(b) Explain terms, Return on Investment and Payback Period related to Energy Conservation. 7

5. (a) Explain objective of Energy Management for Energy Conservation. 6

(b) Explain Energy Conservation and Management in Unix Software. 7

OR

6. How software plays important role in Energy Management System ? 13

7. (a) Explain data communication using RS 232 based system. 6

(b) Explain distributed measurement system in detail. 7

OR

8. Explain IEEE-488 protocol in detail. 13