Please read the abstract of a research proposal and answer the following questions:

Background: An education self-management program for people with osteoarthritis (OA) of the knee was designed to be delivered by health professionals, incorporating their knowledge and expertise. Improvement in quality of life, health status and pain in response to this program has previously been demonstrated in an uncontrolled pilot study. To more rigorously test the effectiveness of the program is important.

Aim: To determine whether an education self management program for subjects with Osteoarthritis (OA) of the knee (OAK program) implemented by health professionals in a primary health care setting can achieve and maintain clinically meaningful improvements compared standard medical management in a control group.

Methods: The effects of standard medical management will be compared with the effects of the OAK program in a single-blind randomized study.

Participants: 146 male and female participants with established OA knee will be recruited. Volunteers with coexistent inflammatory joint disease or serious co-morbidities will be excluded.

Interventions: Participants will be randomized into either intervention or control groups. The intervention group will complete the OA knee program and both groups will be followed for 6 months.

Measurements: Assessments will be at baseline, 8 weeks and 6 months. SF-36 (the Short Form 36v1 Quality of life), WOMAC (The Western Ontario and McMaster Universities (WOMAC) Osteoarthritis Index) and VAS pain (A 10 cm Visual Analog Scale) questionnaires will be completed. Isometric quadriceps and hamstring strength will be measured using a dynamometer; knee range of movement using a goniometer; and physical function will be determined by a modified timed up and go test.

1. Please give this research paper a supposed title? (5%)

2. What information should be included in the literature review of this research paper? (5%)

3. Describe examples of research questions and hypotheses of this paper? (10%)

4. Describe the research design of this research paper? What are the advantages and disadvantages of this research design? (15%)

5. Describe the measured variables in this research paper? (5%)

6. Please explain what is “validity” and “reliability”? What will you do to test “validity” and “reliability” of research instruments in this research? Please give examples. (20%)

7. What are the differences between an experimental study and a quasi-experimental study? (10%)

8. What strategies of data analysis may be used in this research? (5%)

9. Point out the ethical dilemmas that might emerge in this research paper? and what are the ethical issues you will concern for this study? (15%)

10. What are the differences between a quantitative and a qualitative research? (10%)