NATIONAL OPEN UNIVERSITY OF NIGERIA

PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI – ABUJA

FACULTY OF SCIENCES

DEPARTMENT OF COMPUTER SCIENCE

2021_1 EXAMINATIONS

COURSE CODE: CIT474
COURSE TITLE: INTRODUCTION TO EXPERT SYSTEMS
COURSE CREDIT: 2 UNITS
TIME ALLOWED: 2 HOURS
INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER THREE (3) QUESTIONS
QUESTION 1

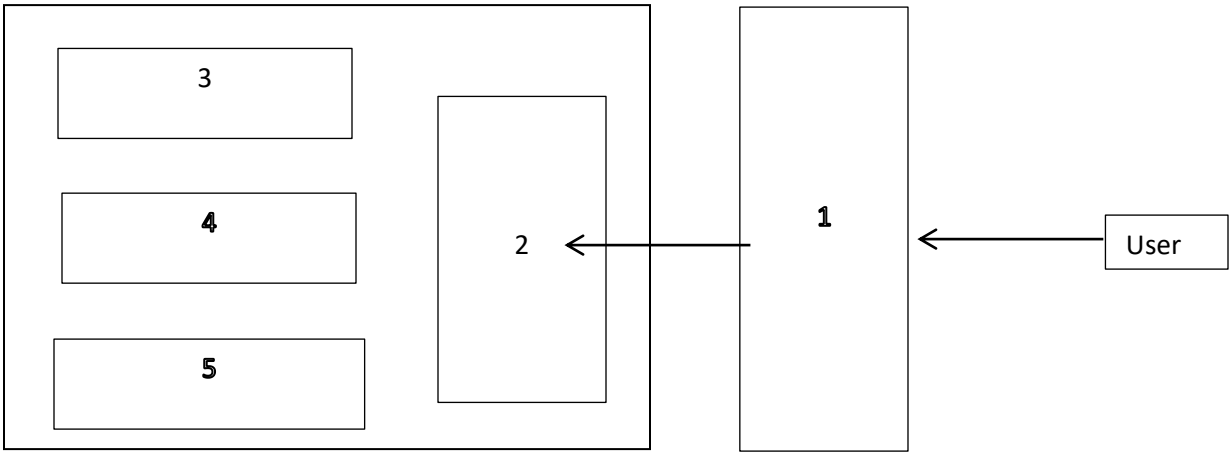
1a. i. Define KEE and give history of its invention ***(4 marks)***

ii. Write down the components of the KEE. ***(6 marks)***

b. List ten (10) applications of expert system. ***(5 marks)***

c. State and describe the two (2) types of inferences. ***(5 marks)***

d. In a sequential order, label the components of the expert system provided. (5 marks)



QUESTION 2

2. Outline and elucidate five (5) characteristics of an expert system. ***(15 marks)***

QUESTION 3

3a. Mention and explain the 5 demerits of Expert Systems. ***(10 marks)***

b. Identify the individuals who interact with the Expert system ***(5 marks)***

QUESTION 4

4a. State any five (5) features of expert system. ***(5 marks)***

b. Briefly analyse each of the following:

(i) Expert System ***(2 marks)***
(ii) Natural language interface ***(2 marks)***
(iii) Rule Based Expert System ***(2 marks)***
(iv) Frame based expert System ***(2 marks)***

(iv) Shells (or inference engine) ***(2 marks)***

QUESTION 5

a. Expound four (4) benefits of Natural Language Interface in expert system. ***(4 marks)***

b. Expound on the two major components of Mycin as an expert system. ***(2 marks)***

c. State three (3) conditions necessary for effective work on the proposed expert system***. (3 marks)***

d. State the three (3) terms associated with Frame Base Expert System ***(6 marks)***