NATIONAL OPEN UNIVERSITY OF NIGERIA

UNIVERSITY VILLAGE, 91 CADASTRAL ZONE, NNAMDI AZIKWE EXPRESSWAY, JABI, ABUJA
FACULTY OF SCIENCE
2020_2 EXAMINATION

COURSE CODE: CIT432
COURSE TITLE: Software Engineering II
CREDIT: 3 Units
TIME ALLOWED: 2½ Hours
INSTRUCTION: Answer Question ONE (1) and any other FOUR (4) Questions

1 (a) Contrast a computer program and computer software [5 marks]

(b) Carry out analysis of the descriptive software life cycle model [5 marks]

(c) Outline five (5) advantages of the rapid prototype model [5 marks]

(d) What is the motivation for work sampling method of data collection? Carry out the Analysis of this method. [5 marks]

(e) State two (2) limitations of the formal method [2 marks]

2(a) Appraise the third generation of computers in relation to software development [4marks]

(b) Examine the functions of operating system [4 marks]

(c) Justify the articulation of software life cycle model [4 marks]

3 (a) Analyze the weaknesses of the low level language [4marks]

(b) Demonstrate how a particular software model is used to keep software bugs out of products [5 marks]

(c) Outline the weaknesses of the spiral model [3 marks]

4 (a) Carry out a comparative analysis of the waterfall model and the Build-and-fix model [6 marks]

(b) Demonstrate the relationship between system analysis and system design [6 marks]

5 (a) Give the name of data collection method that you will recommend to a development team that want to understand how the manual system operates and list six (6) documents that such a team will need. [4 marks]

(b) What are the necessary knowledge a systems analyst needs to write system requirements specifications? [4 marks]

(c) Analyze the four (4) qualities of good code. [4marks]

6(a) Given the following Earned Value (EV) indicators:

BAC = 330 days; BCWP = 190 days; BCWS = 250 days; ACWP = 220 days. Calculate the following;

(i)EV, (ii) SPI, (iii) SV, (iv) CPI, (v) CV and (vi) BR [9 marks]

(b) Criticize the use of the Earned value model [3 marks]