

**MOI UNIVERSITY**

OFFICE OF THE DEPUTY VICE CHANCELLOR

(ACADEMICS, RESEARCH & EXTENSIONS )

**UNIVERSITY EXAMINATIONS**

 **2017/2018 ACADEMIC YEAR**

SECOND YEAR SECOND SEMESTER EXAMINATION

**FOR DIPLOMA**

 **IN**

 **INFORMATION TECHNOLOGY**

**COURSE CODE:** DIT 026

**COURSE TITLE:** INFORMATION SYSTEM ENGINEERING

**DATE :**  2ST SEPTEMBER, 2017 **TIME:** 2.00 A.M – 4.30 P.M

**INSTRUCTIONS TO CANDIDATES**

* SEE INSIDE.

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MOI UNIVERSITY

SCHOOL OF INFORMATION SCIENCES

DEPARTMENT OF INFORMATION TECHNOLOGY

DIPLOMA IN INFORMATION TECHNOLOGY

END OF SEMESTER EXAMS – YEAR II SEMESTER II

2017/2018 ACADEMIC YEAR - SEPTEMBER 2017 EXAMINATIONS

DIT 026: INFORMATION SYSTEM ENGINEERING

Time: 2 hours 30 minutes

Instructions to candidates

* Section A is compulsory
* Answer any two questions in section B

**SECTION A – COMPULSORY: ANSWER ALL QUESTIONS (30 MARKS)**

**QUESTION 1**

1. Explain the following terms as used in information systems engineering: (10 mks)
2. Unified modeling language
3. Software quality assurance
4. Logical design
5. Unary relationships
6. Decision table
7. Modern methods of information system engineering have replaced the convectional approaches. Explain any **FIVE** benefits of soft system methodology. (10 mks)
8. Explain any **THREE** qualities of a well designed software. (6 mks)
9. Distinguish soft and hard system thinking. (4 mks)

**SECTION B- ANSWER ANY TWO QUESTIONS (20 MARKS EACH)**

**QUESTION2**

1. Distinguish **RAD** and  **ETHICS** as methods of system development. (10 mks)
2. Explain the circumstances in which the above in (a) above could be applicable in information System development. (5 mks)
3. Explain any **FIVE** areas of measurement in ETHICS methodology. (5 mks)

**QUESTION 3**

1. Describe the seven-stage process of soft system methodology. (10 mks)
2. Explain the benefits of soft system methodology. (5 mks)
3. Explain the limitation of soft system methodology. (5 mks)

**QUESTION 4**

1. What is Object Oriented Analysis (OOA) as defined by Coad/Yourdon)? (2 mks)
2. Describe the modeling layers of OAA (by Coad/Yourdon)
3. Explain any **THREE** principles for managing complexity in OOA. (6 mks)
4. Explain any **THREE** analysis methods used in OOA by Coad/Yourdon. (6 mks)

**QUESTION 5**

1. Describe the following system model citing an appropriate application environment for each:

  (12 mks)

1. Waterfall model
2. Spiral model
3. Prototyping
4. Explain any **FOUR** problems encountered by earlier systems developers (8 mks)

==== END ====