#### Maitighar, Kathmandu

# Mid Term Examination 2017

Bachelor Level/Fourth Year/Seventh Semester/Computer Science and IT Advanced Database Management System (CSC-401)

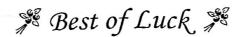
Full Marks: 40 Pass Marks: 16

Time: 2 hrs.

Candidates are required to answer the questions in their own words as far as practicable.

#### Attempt Any Eight Questions:

- 1. How does a category or union type differ from a regular shared subclass? What is a category used for? Illustrate your answer with suitable examples.
- 2. Draw an ER diagram for a hospital with a set of patients and a set of doctors. Associated with each patient a log of various test and examination conducted.
- 3. Describe the steps of the algorithm for database design by EER-to-OO mapping.
- 4. What is versioning? Why is it important? What is the difference between versions and configurations?
- 5. Write short notes on:
  - a) Deductive Database
  - b) Concurrency control
  - c) Spatial Database
  - d) ECA Model
  - e) Multimedia Database
- 6. What is the difference between persistent and transient objects? How persistence is handled in typical OO database systems?
- 7. What is the difference between structured and unstructured complex object? Differentiate identical versus equal objects with examples.
- 8. Discuss how time is represented in temporal databases and compare the different time dimensions.
- 9. Describe the main reasons for and potential advantages for distributed database. What additional functions does it have over centralized DBMS?
- 10. Explain mobile computing architecture with suitable diagram.



Mid-Term Examination 2017
Program/Semester: BSc. CSIT/7<sup>th</sup> Sem.
Subject- Internet Technology

Full Marks: 40 Time: 2 hours

Candidates are required to answer the questions in their own words as far as practicable.

#### Attempt All.

1.

- a) Explain how IANA, RIR, and ISPs work for the Internet resource management.[6]
- b) Explain about N-Tire Client-Server architecture supporting web applications with example. Also write about its benefits. [6]
- 2.
- a) Explain how Domain Name System works. [6]
- b) Explain the TCI/IP protocol suite/hierarchy. [6]
- 3.
  a) Mentioning about the IPv6 header structure, describe the features of IPv6. [6]
- b) Write about different IP v4 & IPv6 address types. [6]
- 4. Write short notes on [Any One] [4]
  - a. cables and optical backbone supporting the Internet backbone
  - b. PGP
  - c. Internet RFCs



# MAITIGHAR, KATHMANDU MIDTERM EXAMINATION B.SC.CSIT 7th SEMESTER - 2017

Course Title: Network and System Administrator

Full Marks: 40

Pass Marks: 18

Course Code: CSC-407 Time: 2Hrs

Candidates are requested to answer the questions in their own words as far as practicable.

### Attempt all Questions:

1. How to add user and group password [4]

#### 2. Explain:

- a) Explain the job scheduling with cron, crontab and anacron [6]
- b) What do you mean by BIOS initialization? [2]
- c) Boot Loader (MBR) initialization [3]
- d) init initialization [2]
- e) Kernel initialization [2]
- a) Explain the Dynamic host IPV4 and IPv6 address.[4]
  - b) Explain the Network Interface Configuration with Static and Dynamic?[6]
- What is process? Explain shell process and attributer process. [4]
- 5. Write shorts Notes on:
  - a) Quota Management.[3]
  - b) SSH configuration and Telnet. [3]



# MAITIGHAR, KATHMANDU MID TERM EXAMINATION B.SC. CSIT — SEVENTH SEMESTER - 2017

Course Title: Software Project Management

Course Code: CSC-408

Full Marks: 40

Pass Marks: 16

### Long Answer Questions. (Any Two)

10\*2 = 20

- 1. Compare and contrast between project and product life cycle with necessary diagrams.
- 2. Explain project scheduling and its basic principles.
- 3. Explain the stepwise project planning process.

### **Short Answer Questions. (Any 5)**

5\*4=40

- 4. Define software project management? How is it different from any other project?
- 5. Differentiate between product, process and resource uncertainty while analyzing high level project risks.
- 6. Explain the various costs benefit evaluation techniques.
- 7. Explain the project control cycle with a flow diagram.
- 8. Define networking planning. Compare and contrast CPM and PERT.
- 9. Why is waterfall model suitable for quick development of small projects.
- 10. Write short notes on (Any Two)
  - i. Resource Allocation
  - ii. Applicability of Spiral Model
  - iii. Project as a system