## PG-757 PGDSM-01/ PGDIS-01

# P.G. DIPLOMA EXAMINATION – DECEMBER 2019.

Software quality Management

### FUNDAMENTALS OF INFORMATION TECHNOLOGY

Time : 3 hours

Maximum marks: 75

PART A —  $(5 \times 5 = 25 \text{ marks})$ 

Answer any FIVE questions.

- 1. Write a hint about software.
- 2. What is Memory unit?
- 3. Explain the Classification of Software.
- 4. Write a short note on System Software utilities.
- 5. Networking: Explain.
- 6. What is LAN Expansion?
- 7. Internet: Give a brief note.

Answer any FIVE questions.

- 8. Explain: computer architecture.
- 9. Write in detail about Software tools.
- 10. Give a detailed explanation for Software Engineering.
- 11. (a) Explain Network operating system concepts.
  - (b) Explain Client software
- 12. Bridges and gateways: Explain.
- 13. Write in detail about Information retrieval on the internet.

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14. Web browsers: Explain.

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## PG- 758 PGDSM-02

### PG DIPLOMA IN SOFTWARE QUALITY MANAGEMENT EXAMINATION — DECEMBER, 2019.

### DATA STRUCTURES THROUGH C

Time : 3 hours

Maximum marks : 75

PART A —  $(5 \times 5 = 25 \text{ marks})$ 

Answer any FIVE questions.

- 1. What is the structure of a C program?
- 2. Write about C library functions?
- 3. Write in detail about Character arrays with example.
- 4. Explain passing arrays with example.
- 5. Explain the implementation of queue structure using array.
- 6. List out the qualities of Graphs in C.
- 7. Explain Linear search.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

- 8. Explain in detail about operators.
- 9. Explain about compiling and running a simple program with example.
- 10. Explain in detail about Single and multi dimensional arrays with example.
- 11. Write in detail about the random access in files with example.
- 12. Explain the various types of linked lists with examples.
- 13. Explain implementation of trees in C.
- 14. Explain the Heap sort techniques.

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## **PG-759 PGDSM-03**

## P.G. DIPLOMA EXAMINATION — DECEMBER, 2019.

### Software Quality Management

### INTRODUCTION TO DATABASE MANAGEMENT SYSTEMS

Time : 3 hours

### Maximum marks : 75

PART A —  $(5 \times 5 = 25 \text{ marks})$ 

Answer any FIVE questions.

- 1. What are the elements of DBMS?
- 2. Discuss about the network model of DBMS.
- 3. Explain Multi key file organization.
- 4. Discuss about the administration of DBMS?
- 5. What is mean by relational completeness?
- 6. What are the various normalization techniques?
- 7. Explain distributed database.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

- 8. Describe the three level architecture of DBMS.
- 9. (a) Explain Hierarchical model of DBMS
  - (b) Explain Relational model of DBMS
- 10. Explain the methods of File organization.
- 11. Give a detailed note on the concepts of Relational models.
- 12. Explain the Normalization.
- 13. Explain the data manipulation statements.
- 14. Discuss about the design of distributed database.

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## **PG - 760 PGDSM-04**

## P.G. DIPLOMA EXAMINATION — DECEMBER, 2019.

Software Quality Management

INTRODUCTION TO SOFTWARE ENGINEERING

Time : 3 hours

### Maximum marks : 75

PART A —  $(5 \times 5 = 25 \text{ marks})$ 

Answer any FIVE questions

- 1. Explain the method of prototyping in software models.
- 2. What is software crisis? How to overcome it?
- 3. Describe about decomposition techniques.
- 4. Write short notes on quality control and quality assurance.
- 5. Explain about ISO 9000 quality standards.
- 6. Brief about behavioural modelling.
- 7. Describe art of debugging.

Answer any FIVE questions.

- 8. Differentiate spiral and incremental model.
- 9. What are project management activities?
- 10. Describe in detail about risk management.
- 11. What are the steps involved in project scheduling?
- 12. Explain the steps for conducting formal technical reviews.
- 13. Differentiate between modular and architectural design.
- 14. What are the testing strategies available?

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## **PG - 761 PGDSM-05**

## P.G. DIPLOMA EXAMINATION — DECEMBER, 2019.

Computer Science

#### SOFTWARE TESTING

Time : 3 hours

### Maximum marks : 75

PART A —  $(5 \times 5 = 25 \text{ marks})$ 

Answer any FIVE questions

- 1. Write about challenges involved in software quality assurance.
- 2. Discuss software quality architecture briefly.
- 3. Explain the purpose of testing
- 4. What are the responsibilities of test team leader?
- 5. Explain any five functional testing techniques.
- 6. Write about code auditing.
- 7. How load test is performed?

Answer any FIVE questions.

- 8. Explain in detail about software quality measurement and metrics.
- 9. Describe in detail inspection, testing and debugging.
- 10. Discuss about software testing life cycle with a diagram.
- 11. Write in detail about v-model testing.
- 12. What is risk based testing? What are its types?
- 13. What are the types of automated testing? Explain its advantages and disadvantages.
- 14. In TMM, discuss human issues and challenges in testing.

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## **PG - 762 PGDSM-06**

## P.G. DIPLOMA EXAMINATION — DECEMBER, 2019.

**Computer Science** 

#### SOFTWARE QUALITY MANAGEMENT

Time : 3 hours

Maximum marks : 75

PART A —  $(5 \times 5 = 25 \text{ marks})$ 

#### Answer any FIVE questions

- 1. Write short notes on quality assurance.
- 2. Describe cost of quality briefly.
- 3. Explain in brief about statistical quality assurance.
- 4. Write short notes on software reliability.
- 5. Define software process.

- 6. What impact does software reuse bring in TQM?
- 7. Write short notes on clean room engineering.

Answer any FIVE questions.

- 8. Explain the steps involved in business process re-engineering.
- 9. What is six sigma? Explain its core steps.
- 10. What are the elements of software quality assurance?
- 11. Discuss in detail about SPICE Maturity model.
- 12. Write notes on internal audit and assessment.
- 13. What are the types of reviews?
- 14. What are the elements for achieving zero defect in TQM? Give its pros and cons.

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