

**CO11312**

**GOVERNMENT POLYTECHNIC MUMBAI**

**TERM END EXAMINATION**

**EVEN 2014-15**

**Programme : Computer Engineering.**

**Course Title: Software Testing.**

**3 Hours / 80 Marks**

**Enrollment No:**

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**Instructions:**

1. Use separate answer book for Section I and Section II
2. Attempt all the questions from each section.
3. Illustrate your answers with neat sketches wherever necessary.
4. Use of Mathematical Tables, Steam Table and Pocket Calculator (non-programmable) is permissible.
5. Assume suitable additional data, if necessary.

**SECTION - I**

**Q.1 Attempt any SIX ( 6 X 2 Marks )**

**12 Marks**

- a. What is a Bug?
- b. Define dynamic testing.
- c. What is formal review?
- d. Why configuration testing is necessary?
- e. Define walkthroughs.
- f. List any two benefits of static white – box testing.
- g. What is test to pass and test to fail?
- h. Enlist any four responsibilities of software tester.

**Q.2 Attempt any FOUR ( 4 X 4 Marks )**

**16 Marks**

- a. Explain white box testing in detail.
- b. Compare verification and validation.
- c. Explain generic code review checklist in detail.
- d. What are the standards and guidelines for compatibility testing?
- e. Give comparison of quality assurance and quality control.
- f. Explain dynamic black-box testing.

**Q.3 Attempt any TWO ( 2 X 6 Marks )**

**12 Marks**

- a. Explain equivalence partitioning in detail.
- b. Write short note on i) Line coverage ii) Branch coverage.
- c. Explain the following.
  - i) Backward and forward compatibility ii) Isolating configuration bugs.

## SECTION II

Q.4

**Attempt any SIX**

- How do you make good UI?
- Differentiate between alpha and beta testing.
- What is test cases? Its use.
- Define test procedures?
- What are different accessibility features in software?
- What test automation?
- List goal of test planning.
- List features of fully programmed automated testing tools.

12 Marks

Q.5

**Attempt any FOUR**

- Explain in brief web pages fundamentals.
- Describe test case planning in detail.
- Describe macro recording and playback.
- How the test cases in organization and tracking can be done?
- Explain benefits of tools and automation.
- Explain briefly test design.

16 Marks

Q.6

**Attempt any TWO**

- Write short note i) Consistent ii) Flexible
- Describe different test tool in detail.
- Explain in detail bugs life cycle.

12 Marks

# GOVERNMENT POLYTECHNIC MUMBAI

## TERM END EXAMINATION

EVEN 2014-15

Programme : Computer Engineering  
Course Title : Computer Security

03Hours / 80 marks

Enrolment No.

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**Instructions:**

1. Use separate answer book for section I and section II.
2. Attempt all the questions from each section.
3. Illustrate your answers with neat sketches wherever necessary.
4. Use of Mathematical Tables, Steam Table and Pocket Calculator (non-programmable) is permissible.
5. Marks on Right Hand Side indicate full marks for the question.
6. Assume suitable additional data, if necessary.

**SECTION - I****Q.1 Attempt any SIX****12 Marks**

- a. What is the need of computer security. Any two points.
- b. Differentiate between virus and worm.
- c. List the different types of attacks on computer system.
- d. What is piggybacking.
- e. What is shoulder surfing?
- f. Define encryption and decryption.
- g. Define steganography? Give one application of it.
- h. What do you mean by symmetric cryptography.

**Q.2 Attempt any FOUR****16 Marks**

- a. Explain denial of service (DOS) attack in detail.
- b. Write short note on (i) Sniffing (ii) Spoofing
- c. Explain biometric authentication system.
- d. Explain physical security and access controls.
- e. Write the steps for obtaining a digital certificate and steps for verifying authenticity of certificate.
- f. Compare transposition cipher versus substitution cipher.

**Q.3 Attempt any TWO****12 Marks**

- a. Write short note on (i) Intruders and Insiders (ii) TCP/IP Hacking.
- b. Describe the handprint, fingerprint mechanism for authentication.
- c. Explain any two trust models of computer security.



## SECTION II

## Q.4 Attempt any SIX

12 Marks

- How e-mail security is achieved (two points).
- What is firewall?
- What is IPSeC?
- Write short note on intrusion detection system.
- What is vulnerability of password.
- List the component of good password.
- What is cyber crime?
- How web security is achieved (two points).

## Q.5 Attempt any FOUR

16 Marks

- Explain working of firewalls.
- How security of e-mail transmission is achieved.
- Explain general steps for securing windows operating system.
- Explain different password selection strategies.
- Explain SSL.
- Explain need of cyber laws.

## Q.6 Attempt any TWO

12 Marks

- What is VLAN? Explain it with neat diagram.
- Write short note on : (i) Hot fix (ii) Service pack
- List any real life examples of cyber crime.

# GOVERNMENT POLYTECHNIC MUMBAI

## TERM END EXAMINATION

EVEN 2014-15

Programme : Computer Engineering  
Course Title : Management Information System

03Hours / 80 marks

Enrollment No.

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**Instructions:**

1. Use separate answer book for section I and section II.
2. Attempt all the questions from each section.
3. Illustrate your answers with neat sketches wherever necessary.
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5. Marks on Right Hand Side indicate full marks for the question.
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### SECTION - I

**Q.1 Attempt any SIX**

**12 Marks**

- a. Define IS.
- b. What are different types of IS?
- c. Define MIS.
- d. What is the role of MIS?
- e. What is the advantage of using MIS?
- f. What are different types of softwares?
- g. What are E-mails and weblogs?
- h. What are software suits?

**Q.2 Attempt any FOUR**

**16 Marks**

- a. Explain business perspective of IS.
- b. What are the challenges of information system?
- c. What is the impact of MIS on an organization?
- d. Explain management as control system.
- e. Explain different features of web browser.
- f. What are integrated packages? What features are available in them?

**Q.3 Attempt any TWO**

**12 Marks**

- a. Explain operational support system and management support system.
- b. Explain in detail components of IS.
- c. Explain MIS for digital firm.

## SECTION II

**Q.4 Attempt any SIX****12 Marks**

- a. Define Record, Field, Database and File
- b. Draw a neat and labelled data warehouse diagram.
- c. Define E- Commerce.
- d. Enlist benefits and challenges of CRM.
- e. Define Decision Support Systems.
- f. Define Supply Chain Management.
- g. Enlist major types of Enterprise Business systems.
- h. Enlist categories of electronic commerce applications and define any one of them.

**Q.5 Attempt any FOUR****16 Marks**

- a. List and Explain key factors for success in E-commerce.
- b. Define CRM. Explain trends in CRM in detail.
- c. Write short note on 1) Transaction processing system, 2) MIS
- d. Enlist types of Databases. Explain about data warehouse in short.
- e. Explain Business-to-Business E-commerce with an example.
- f. Explain Supply Chain Management with an example.

**Q.6 Attempt any TWO****12 Marks**

- a. Enlist approaches to CRM and Explain with neat labelled diagram.
- b. Explain Database Management Approach in detail.
- c. Write short note on 1) Electronic Data Interchange, 2) Secure Electronic Payment system