

Max. Marks: 70

### IV B. Tech I Semester (R09) Regular Examinations, November 2012 WEB TECHNOLOGIES

(Computer Science & Engineering)

Time: 3 hours

Answer any FIVE questions All questions carry equal marks

- 1 Explain in detail Apache web server and its installation procedure.
- 2 (a) Explain the anatomy of a PHP page.
  - (b) How it differs from an html page?
- 3 (a) Explain about PHP data types in detail.(b) Write a PHP program that uses all the data types.
- 4 (a) What is object oriented programming?
  - (b) How can you achieve it in PHP? Explain.
- 5 (a) Explain briefly how to redirect the HTTP headers to different locations.
  - (b) Explain briefly how to use the header () function in different ways.
- 6 (a) What is the advantage of Superglobals? Explain with example.(b) Write a program to differentiate GET and POST methods.
- 7 (a) Explain the function used to connect to a MySQL database.
  - (b) How to perform a query in PHP? Explain with PHP code.
- 8 What are the advantages of AJAX? Write an AJAX PHP script to demonstrate how a web page can communicate with a web server while a user type characters in an input field.



Max. Marks: 70

### IV B. Tech I Semester (R09) Regular Examinations, November 2012 WEB TECHNOLOGIES

(Computer Science & Engineering)

Time: 3 hours

# Answer any FIVE questions All questions carry equal marks

- 1 (a) How to handle HTTP requests & response? Explain in detail.
  - (b) Write a short note on client/server model.
- 2 (a) What is server side programming?
  - (b) Briefly discuss about any two server side programming languages.
- 3 (a) What is ternary operator? Explain with an example.
  - (b) Explain about scope of a variable.
  - (c) Write a PHP program that works on date & time using functions.
- 4 (a) What is function overriding? Write the syntax & explain with an example.(b) Write a PHP program that concatenates two files.
- 5 (a) Explain why cookies are becoming less trusted.
  - (b) What is a session? Explain briefly about sessions.
- 6 (a) Explain briefly about the POST method with example.
  - (b) Differentiate Superglobals versus Globals.
- 7 Explain the following functions with examples.
  (a) Mysql\_connect () (b) mysql\_close () (c) mysql\_query() (d) mysql\_select\_db().
- 8 (a) Explain briefly the function xml\_parser\_free () with example.
  - (b) Write an AJAX PHP script to demonstrate how a web page can fetch information from a database.

### IV B. Tech I Semester (R09) Regular Examinations, November 2012 WEB TECHNOLOGIES

(Computer Science & Engineering)

Time: 3 hours

Max. Marks: 70

# Answer any FIVE questions All questions carry equal marks

- 1 (a) What is a web server?
  - (b) Mention any three web servers and explain them.
- 2 (a) What makes PHP a choice among the other scripting languages?(b) Where can we use PHP scripts?
- 3 (a) What is the use of scope resolution operator? Explain.(b) Explain about operator precedence & associativity.
- 4 (a) How to define a class in PHP? Explain in detail about classes.(b) Write a PHP program that explains the use of abstract classes.
- 5 (a) Explain why cookies are becoming less trusted.
  - (b) Explain briefly how to use the header () function in different ways.
- 6 (a) Explain briefly about the GET method with example.(b) Differentiate GET and POST methods.
- 7 (a) Write PHP code to connect to a MySQL Database.
  - (b) How to perform a query in PHP? Explain with PHP code.
- 8 What are the advantages of AJAX? Write an AJAX PHP script to demonstrate how web page can fetch information from a database.

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# 3



### IV B. Tech I Semester (R09) Regular Examinations, November 2012 WEB TECHNOLOGIES

(Computer Science & Engineering)

Time: 3 hours

Max. Marks: 70

# Answer any FIVE questions All questions carry equal marks

- 1 What are the different types of web servers? Discuss briefly.
- 2 What is the impact of programming on web environments? Explain with an example.
- 3 (a) Explain different types of operators in PHP.(b) What is the use of scope resolution operator? Explain.
- 4 (a) What are the various access modifiers available in PHP?(b) Explain about parent constructors.
- 5 (a) What are the advantages and disadvantages of cookies?(b) How to set a cookie on user computer? Explain with an example.
- 6 (a) List and describe the different form elements associated with common form issues.(b) Differentiate GET and POST methods.
- 7 Explain briefly the three components of MVC architecture.
- 8 (a) How to initialize the XML parser in PHP? Explain with an example.
  - (b) What is W3C DOM? Explain different parts and levels of W3C DOM.

B.TECH IV Year I Semester (R09) Regular Examinations, November 2012

#### SOFTWARE TESTING

(Common to Computer Science & Engineering & Information Technology)

Time: 3 hours

Max. Marks: 70

### Answer any FIVE questions

### All questions carry equal marks

#### \*\*\*\*

- 1 (a) Briefly explain the consequences of bugs.
  - (b) Specify on which factors the importance of bugs depends. Give the metric for it.
- 2 What is the need of path instrumentation? Explain the methods for path instrumentation.
- 3 (a) Discuss about predicates and sensitization based on transaction flows.
  - (b) Discuss about various strategies used in data flow testing.
- 4 Classify what can go wrong with boundaries, and then define a test strategy for each case in domain testing.
- 5 Write the steps involved in node reduction procedure. Illustrate all the steps with help of neat labled diagrams.
- 6 Discuss about what logic based testing address. Explain various methods to deal with it.
- 7 Explain state graphs and show implementation of transaction testing on it.
- 8 Write short notes on the following:
  - (a) Matrix of graph
  - (b) Node reduction algorithm
  - (c) J meter

#### B.TECH IV Year I Semester (R09) Regular Examinations, November 2012

#### SOFTWARE TESTING

(Common to Computer Science & Engineering & Information Technology)

Time: 3 hours

Max. Marks: 70

#### Answer any FIVE questions All questions carry equal marks

#### 3 carry c

- 1 What is a test case? Write all principles of test case design with an example.
- 2 Categorize different activities of path testing and explain.
- 3 (a) Explain path selection for system testing based on transaction flows.(b) Define transaction flow. Explain it for an online information retrieval system.
- 4 Explain domain boundary bugs for two dimensional domains.
- 5 (a) What is meant by a path? Illustrate an example of it.
  - (b) Describe about path sum and path product.
  - (c) Discuss the procedure for flow anomaly defection.
- 6 Discuss the role of decision table in a test case design. Explain it with an example.
- 7 (a) Differentiate between good state graphs and bad state graphs with examples.
  - (b) Describe about state testing and testability tips.
- 8 What are graph matrices and discuss about their applications?

#### B.TECH IV Year I Semester (R09) Regular Examinations, November 2012

#### SOFTWARE TESTING

(Common to Computer Science & Engineering & Information Technology)

Time: 3 hours

Max. Marks: 70

#### Answer any FIVE questions All questions carry equal marks

#### \*\*\*\*\*

- 1 Explain various models for bugs testing with help their diagrams.
- 2 What is the need of path sensitizing? Explain various methods for path sensitizing.
- 3 Where do you use transaction flow testing? Explain about possible transaction flow techniques used for testing with suitable illustration.
- 4 How do you categorize an application pertains to different domain. Explain how to conduct interfaces testing on them.
- 5 What is a regular expression? How these expressions reduces the burden on paths based testing.
- 6 (a) How can we expand the immaterial cases in the decision table. Explain.
  - (b) What is a KV chart? Explain its usage with an example.
- 7 Explain what for state graphs are used. Discuss how state graphs are categorized into good and bad state graphs.
- 8 Write short notes on the following:
  - (a) Power of a graph matrix
  - (b) Node reduction algorithms
  - (c) Win-runner

B.TECH IV Year I Semester (R09) Regular Examinations, November 2012

#### SOFTWARE TESTING

(Common to Computer Science & Engineering & Information Technology)

Time: 3 hours

Max. Marks: 70

### Answer any FIVE questions

#### All questions carry equal marks

#### \*\*\*\*

- 1 (a) What is the purpose of testing? Discuss the taxonomy of bugs.
  - (b) What are the principles of test case design?
- 2 Describe the following concepts:
  - (a) Predicates
  - (b) Path predicates
  - (c) Achievable paths
- 3 Implementation of a transaction flow is usually implicit in the design of the systems control structure & database. Explain it with an example.
- 4 The domain testing is easy for one dimension and difficult for any two dimensional system. Justify it.
- 5 Explain how path products and path expressions can improvize the efficiency for testing.
- 6 Discuss the role of decision tables. Explain the same with the help of neat illustration.
- 7 The behavior of a finite-state machine is invariant under all encodings. Justify it, with an example.
- 8 Write short notes on the following:
  - (a) Graph matrices applications
  - (b) Node reduction algorithm
  - (c) J meter

### B.TECH IV Year I Semester (R09) Regular Examinations, November 2012

### **GRID & CLUSTER COMPUTING**

(Computer Science & Engineering)

Time: 3 hours

Max. Marks: 70

#### Answer any FIVE questions All questions carry equal marks

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- (a) What is distributed computing? Explain briefly about distributed computing.(b) What are the strengths and weaknesses of distributed computing?
- 2 What is parallel computing? Explain briefly about parallel programming models.
- 3 (a) Explain about cluster computing.
  - (b) Explain cluster architecture.
  - (c) What are the applications of cluster?
- 4 How the grid services architecture is merging with web services architecture? Explain it.
- 5 (a) What are the OGSA platform components?
  - (b) Explain about open grid service architecture.
- 6 Explain briefly about Globus GT3 toolkit.
- 7 Explain briefly about OGSI.NET middleware technology.
- 8 (a) How the grid computing is related to other distributed technologies?
  - (b) What are the strategies for developing parallel applications?

#### B.TECH IV Year I Semester (R09) Regular Examinations, November 2012

#### **GRID & CLUSTER COMPUTING**

(Computer Science & Engineering)

Time: 3 hours

Max. Marks: 70

### Answer any FIVE questions All questions carry equal marks

# 1 (a) Describe the common requirements and specific details of grid computing architecture.

- (b) Write the collective layer services in a grid computing system.
- 2 (a) Describe the design issues and the architecture of cluster computing systems.
  - (b) Discuss the major trends in computing that have led to the emergence of cluster computing.
- 3 (a) Discuss different models or strategies for parallelization of applications.
  - (b) Give comparison of the programming and performance on shared memory architecture and distributed memory architecture.
- 4 (a) Explain briefly about open grid services architecture.(b) Explain briefly about service oriented grid computing.
- 5 (a) What are the GT3 security services?(b) What is the Globus GT3 toolkit? Explain it.
- 6 (a) What are the goals of OGSI and OGSA?(b) Summarize the data requirements in early grid solutions.
- 7 Explain briefly about OGSI.NET frame work.

#### 8 Explain following.

- (a) Strengths and weaknesses of distributed computing.
- (b) Application of cluster computing.
- (c) Grid services.

B.TECH IV Year I Semester (R09) Regular Examinations, November 2012

#### **GRID & CLUSTER COMPUTING**

(Computer Science & Engineering)

Time: 3 hours

Max. Marks: 70

### Answer any FIVE questions All questions carry equal marks

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- 1 (a) Summarize the data requirements in early grid solutions.
  - (b) Describe the common requirements and specific details of grid computing architectures.
- 2 (a) What are the strategies for developing parallel applications?
  - (b) What are the factors that differentiates among different clusters?
- 3 Discuss some of the issues involved in the design and implementation of distributed shared memory system.
- 4 (a) Give the system architecture of NanOS cluster operating system.
  - (b) Explain parallel programming models and their tools.
- 5 (a) Explain briefly about web services architecture.(b) Explain briefly about OGS architecture.
- 6 Explain briefly about Globus GT3 toolkit.
- 7 (a) What are the goals of OGSI and OGSA?
  - (b) What are the strengths and weaknesses of distributed computing?
- 8 How to merging the grid services architecture with web services architecture? Explain it.

#### B.TECH IV Year I Semester (R09) Regular Examinations, November 2012

#### **GRID & CLUSTER COMPUTING**

(Computer Science & Engineering)

Time: 3 hours

Max. Marks: 70

# Answer any FIVE questions All questions carry equal marks

- (a) What are the strengths and weakness of distributed computing?(b) Write the collective layer services in a grid computing system.
- 2 (a) What are the factors that differentiates among different clusters?(b) What are the strategies for developing parallel applications?
- 3 (a) Give comparison of the programming and performance on shared memory architecture and distributed memory architecture.
  - (b) Explain about parallel computing models.
- 4 How the grid services architecture is merging with web services architecture? Explain it.
- 5 (a) What are the OGSA platform components? Explain it.
  - (b) Explain briefly about NanOS cluster operating system.
- 6 Explain briefly about Globus GT3 toolkit.
- 7 (a) Explain about WSDL and SOA.(b) Discuss OGSI.NET frame work.
- 8 (a) What is cluster computing? Explain applications of cluster computing.
  - (b) Discuss distributed computing applications.

#### B.TECH IV Year I Semester (R09) Regular Examinations, November 2012 DATA WAREHOUSING & DATA MINING

(Computer Science & Engineering)

Time: 3 hours

1

Max. Marks: 70

### Answer any FIVE questions All questions carry equal marks

- (a) List and describe any four primitives for specifying a data mining task.
- (b) What is meant by data cleaning? Describe the need and significance of data cleaning and data transformation.
- 2 (a) Explain difference between designing a data warehouse and an OLTP system.(b) Explain the star and snowflake schema in detail with suitable example.
- 3 (a) Can we design a method that mines the complete set of frequent item sets without
- (a) Can we design a method that mines the complete set of nequent item sets with candidate generation? If yes, explain with example.
   (b) Discuss shout association and a set of nequent item sets.
  - (b) Discuss about association mining using correlation rules.
- 4 (a) What is Bayes theorem? Explain about naïve Bayesian classification.(b) Explain about prediction.
- 5 (a) Given two objects represented by the tuples (22,1,42,10) and (20,0,36,8).
  (i) Compute the Euclidian distance between the two objects.
  (ii) Compute the Manhattan distance between the two objects.
  (iii) Compute the Minkowski distance between two objects using q = 3.
  - (b) Write short notes on outlier analysis.
- 6 Explain the following:
  - (i) Mining time-series and sequence data.
  - (ii) Graph mining.
- 7 (a) With an example write and explain about spatial trend algorithm.
  - (b) Discuss the relationship between text mining and information retrieval and information extraction.
- 8 Write short notes on data mining applications.

#### B.TECH IV Year I Semester (R09) Regular Examinations, November 2012 DATA WAREHOUSING & DATA MINING

(Computer Science & Engineering)

Time: 3 hours

Max. Marks: 70

# Answer any FIVE questions All questions carry equal marks

- 1 (a) Describe why concept hierarchies are useful in data mining.(b) Describe in brief about data reduction techniques.
- 2 (a) Explain multi-dimensional data model of data warehouse.(b) Write the differences between OLTP and OLAP.
- 3 (a) How can we mine multilevel association rules efficiently using concept hierarchies? Explain.
  - (b) Write the FP-graph algorithm. Explain.
- 4 (a) Discuss about back propagation classification.
  - (b) How prediction is different from classifications?
- 5 Write K-means and K-medoids algorithm and explain them.
- 6 (a) What is "constrained sequence mining problem"? In which situation we will use constrained sequence mining.
  - (b) Explain in detail similarity search in time series analysis.
- 7 (a) Explain keyword based association and document classification in text mining.(b) Write short notes on web linkage mining.
- 8 Write short notes on the following:
  - (i) Statistical data mining.
  - (ii) Visual and audio data mining.

#### B.TECH IV Year I Semester (R09) Regular Examinations, November 2012 DATA WAREHOUSING & DATA MINING

(Computer Science & Engineering)

Time: 3 hours

Max. Marks: 70

### Answer any FIVE questions All questions carry equal marks

1 (a) How can we smooth out noise in data cleaning process? Explain.(b) Briefly discuss the data mining functionalities.

- 2 (a) Write short notes on attribute oriented induction.
  (b) Explain fact table identification process.
- 3 Explain the Apriori algorithm with example.
- 4 (a) Explain about decision tree induction algorithm.(b) What is meant by classifier accuracy? Explain with suitable case illustrations.
- 5 Describe the following cluster analysis methods.
  - (i) Density based methods.
  - (ii) Grid based methods.
  - (iii) Model based methods.
- 6 (a) Discuss about mining time series and sequence data.
  - (b) What are cases and parameters for sequential pattern mining.
- 7 (a) What is spatial clustering? Write about spatial characterization.
  - (b) Explain about multidimensional analysis and descriptive mining of complex data.
- 8 Write short notes on following:
  - (i) Data mining system produces and research prototypes.
  - (ii) Social impacts on data mining.

B.TECH IV Year I Semester (R09) Regular Examinations, November 2012 DATA WAREHOUSING & DATA MINING

(Computer Science & Engineering)

Time: 3 hours

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Answer any FIVE questions All questions carry equal marks

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- 1 (a) Why preprocessing of data is needed?
  - (b) What is data mining and why is to be done? Explain the classification of data mining systems.
- 2 (a) Briefly discuss data warehouse architecture.
  - (b) Write short notes on data cube computation and data generalization.
- 3 (a) What are the approaches to mining multilevel association rules? Explain.(b) Write apriori algorithm and explain.
- 4 (a) Write short notes on support vector machines.
  - (b) How does the Naïve Bayesian classification works? Explain.
  - (c) Explain classifier accuracy.
- 5 Explain in detail about different Hierarchal clustering methods.
- 6 (a) Explain methods for mining frequent sub graphs.(b) What are the characteristics of social networks?
- 7 (a) Give an example of generalization based mining of plan databases by divide and conquer.
  - (b) Write short notes on spatial data cube construction and spatial OLAP.
- 8 Explain about the following data mining applications.
  - (i) Financial data analysis.
  - (ii) Biological data analysis.

(Common to Computer Science & Engineering and Computer Science & Systems Engineering)

Time: 3 hours

Max. Marks: 70

#### Answer any FIVE questions All questions carry equal marks

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- 1. Explain the process of encryption and decryption in DES (Data Encryption Standard) algorithm.
- 2. Write notes on:
  - (a) Viruses.
  - (b) Worms.
  - (c) Bacteria.
- 3. (a) Illustrate with an example the process involved in RSA algorithm.
  - (b) Explain the various steps involved in the HMAC algorithm.
- 4. Explain how a signature is signed and verified in digital signature algorithm.
- 5. (a) What is S/MIME? Explain the different header fields included in S/MIME.(b) Explain how PGP message generation is done with a neat diagram.
- 6. (a) List the different fields of authentication header.(b) Write about the features of ISAKMP (Internet Security Association Key Management Protocol).
- 7. (a) Explain the operation of SSL record protocol.(b) What is a dual signature and what is its purpose? How is it constructed?
- 8. (a) What are the limitations of firewalls?
  - (b) Write short note on intruders.



(Common to Computer Science & Engineering and Computer Science & Systems Engineering)

Time: 3 hours

Max. Marks: 70

#### Answer any FIVE questions All questions carry equal marks

#### \*\*\*\*

- 1. (a) List out the different attacks caused in the security. Explain it.
  - (b) What are the differences between a block cipher and a stream cipher?
- 2. Write notes on:
  - (a) Trap doors.
  - (b) Logic bomb.
  - (c) Trojan horses.
- 3. Differentiate MAC and Hash functions. Discuss the basic uses of hash function.
- 4. Define digital signature. Explain its role in network security.
- 5. (a) Explain what Kerberos is and give its requirements.(b) List and explain the PGP (Pretty Good Privacy) services.
- 6. (a) Discuss the purpose of SA(Security Association) selectors.
  - (b) Enumerate on the five default ISAKMP exchange types.
- 7. (a) What is the difference between an SSL connection and an SSL session? Explain it.(b) List and explain the SET requirements.
- 8. (a) Explain the intrusion detection tool audit records.
  - (b) What are the services provided by firewalls?



(Common to Computer Science & Engineering and Computer Science & Systems Engineering)

Time: 3 hours

Max. Marks: 70

#### Answer any FIVE questions All questions carry equal marks

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- 1. (a) What is the purpose of S-Boxes in DES? Explain the avalanche effect.
  - (b) What is the difference between passive and active security threats?
- 2. (a) What is the structure of a virus?(b) Explain digital immune system with neat diagram.
- 3. (a) What are the approaches to message authentication? Describe briefly about the same.(b) What are the characteristics of hash functions?
- 4 What is authentication protocol? Explain briefly about authentication protocols.
- 5. (a) Explain X.509 directory authentication service.(b) Draw and explain the transmission and reception of PGP messages.
- 6. (a) Explain the benefits of IP Security.(b) Define ESP and explain the security services it provides.
- 7. (a) What is WWW? What are the challenges web presents? Discuss.
  - (b) Explain the significance of dual signature in SET (Secure Electronic Transaction).
- 8. (a) How does a trusted system defend from Trojan horse attacks?
  - (b) Explain about packet filtering firewalls.

(Common to Computer Science & Engineering and Computer Science & Systems Engineering)

Time: 3 hours

Max. Marks: 70

#### Answer any FIVE questions All questions carry equal marks

#### \*\*\*\*\*

- 1. (a) List and briefly define categories of security services.
  - (b) Briefly define substitution techniques with an example.
- 2. (a) Describe the main characteristics of computer virus.
- (b) Write short notes on worms.
- 3. (a) Explain about the security of RSA algorithm.(b) With an example explain about SHA (Secure Hash Algorithm) algorithm.
- 4. What requirement should a digital signature scheme satisfy? What is the difference between direct and arbitrated digital signature?
- 5. (a) Describe the five principal services the pretty good privacy (PGP) provides.
  - (b) Explain MIME encoding techniques.
- 6. (a) Explain IP sec documents with a neat diagram.
  - (b) Describe any four ISAKMP pay load types listing the parameters of the pay load.
- 7. (a) What are the key features of SET (Secure Electronic Transaction).
  - (b) Explain the various web security threats.
- 8. (a) List the characteristics of a good firewall implementation.
  - (b) Define reference monitor. What is the difference between subject and object of a access control?



Max. Marks: 70

# IV B. Tech I Semester (R09) Regular Examinations, November 2012 MANAGERIAL ECONOMICS & FINANCIAL ANALYSIS

(Common to CSE, IT & CSS)

Time: 3 hours

# Answer any FIVE questions All questions carry equal marks

- 1 (a) Define managerial economics. Explain its scope.
  - (b) Distinguish between economics and managerial economics with suitable examples.
- 2 What do you understand by 'Elasticity of Demand'? What are types of elasticity of demand?
- 3 Explain how do you determine breakeven point in volume and value? Explain graphically.
- 4 How does an individual firm behave under perfect completion? Also explain the firm and industry equilibrium under perfect competition.
- 5 Discuss about the short-comings of the public sector enterprises in India and what is their future.
- 6 (a) Define capital budgeting. Explain its importance.(b) How is useful of payback period method? Explain its features and limitations.
- 7 (a) What is 'Journal Entry' and describes its importance in account books?
  (b) Explain the basic accounting concepts and convention, Give examples.
- 8 Discuss the importance of ratio analysis for inter firm and intra-firm comparison, including circumstances responsible for its limitations, if any.



Max. Marks: 70

# IV B. Tech I Semester (R09) Regular Examinations, November 2012 MANAGERIAL ECONOMICS & FINANCIAL ANALYSIS

(Common to CSE, IT & CSS)

#### Time: 3 hours

# Answer any FIVE questions All questions carry equal marks

- 1 Elaborate the importance of managerial economics in decision making.
- 2 How do you measure elasticity of demand? Illustrate graphically.
- 3 What do you understand by cost output relationship? Explain how costs behave in the short run.
- 4 Define market. Distinguish between perfect and imperfect markets.
- 5 (a) Define partnership and explain its silent features and limitations.(b) What are the qualities of a good partner?
- 6 (a) What is capital? Explain the types and significance of capital.
  - (b) Explain the concept of working capital, its features & limitations.
- 7 Explain the following in briefly:(a) Double entry system.
  (b) Book keeping.
  (c) Capital.
  (d) Income.
- 8 How ratios are classified for the purpose of financial analysis? With assumed data, illustrate any two types of ratios under each category.

#### Code: 9AHS401



## IV B. Tech I Semester (R09) Regular Examinations, November 2012 MANAGERIAL ECONOMICS & FINANCIAL ANALYSIS

(Common to CSE, IT & CSS)

Time: 3 hours

Max. Marks: 70

# Answer any FIVE questions All questions carry equal marks

- 1 What are the contributions and limitations of managerial economics to business managers?
- 2 What is the significance of elasticity of demand? Explain different types of elasticity of demand.
- 3 A firm has two products B and C. The particulars of the price per unit, variable cost per unit and percentage of share in the total sales volume are given in the following table:

Products	Selling price	Variable cost	% of share
В	Rs.400	Rs.160	30%
С	Rs.500	Rs 200	50%

The total fixed costs during the year amount to Rs:10,00,000. The total volume of sales is Rs: 80,00,000.

The company wants to drop product B as it is yielding less contribution per unit. Instead, it wants to add product D. If D is added, the new fixed cost is likely to be up by 10% and the sales volume is likely to increase by 5%.

Do you recommend for adding product D?

- 4 Explain how the price is determined under conditions of perfect competition. Illustrate this with help of diagrams.
- 5 Discuss the company features of form of business organization.
- 6 (a) Explain the factors affecting the requirements of working capital.
- (b) Determine the capital, and its features.
- 7 (a) Define accounting and explain its functions.
  - (b) Explain classification of accounts with suitable examples.
- 8 The following is the balance sheet of Sri Anurag Enterprises as on 31<sup>st</sup> Dec 20007.

Liabilities	Rs.	Assets	Rs.
Share capital	2,00,000	Buildings	2,00,000
Reserve fund	50,000	Machinery	1,50,000
Profit balance	30,500	Stock on hand	1,00,000
Bank loan	1,50,000	Sundry debtors	60,000
Sundry creditors	70,000	Cash on hand	20,500
Provision for Tax	30,000		
	5,30,000		5,30,000

You are required to comment on liquidity and solvency position of the concern.

#### Code: 9AHS401



## IV B. Tech I Semester (R09) Regular Examinations, November 2012 MANAGERIAL ECONOMICS & FINANCIAL ANALYSIS

(Common to CSE, IT & CSS)

Time: 3 hours

Max. Marks: 70

# Answer any FIVE questions All questions carry equal marks

- 1 What is demand analysis? Explain the factors influencing the demand for a product.
- 2 Explain with examples: (a) Price elasticity of demand. (b) Cross elasticity of demand.
- 3 A machine tools factory has a plant capacity of enough hours 9000. Annual fixed charges are of Rs.50,000 per year. It can produce two products of X and Y. It has three options: make X or make Y or make some units of X and some units of Y. Look at the following data:

	Х	Y
Selling price	Rs.2,500	Rs.4,000
Variable cost (Rs)	1,000	2,000
Demand	2500 units	5000 units
Time taken for production	3 hours	5 hours

What product mix will maximize the net profits of the factory? Calculate the maximum net profit.

- 4 Define monopoly. How is price determined under monopoly?
- 5 (a) Define company. Explain its features.
  - (b) What are its advantages and disadvantages?
- 6 (a) What is the importance of capital?
  - (b) What factors determine the working capital requirements of a company?
- 7 (a) How are accounts finalized at the end of an accounting period with the help of a trial balance? Illustrate.
  - (b) Define financial statements, and explain its objectives and importance.
- 8 From the information given below calculate:

(a) Inventory Turnover ratio, and (b) Receivables Turnover ratio

	Amount in Lakhs (Rs.)		
Sales(100% credit)	42.00		
Opening stock	6.00		
Closing stock	7.00		
Sales returns	3.00		
Opening balance of sundry debtors	6.00		
Closing balance of sundry debtors	4.00		
Opening balance of Bills receivable	3.00		
Closing balance of Bills receivable	5.00		
Gross profit = 30% of shares			