

Hall Ticket Number :

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**R-14**

**Code: 4G171**

IV B.Tech. I Semester Regular Examinations Nov/Dec 2017

**Data Warehousing and Mining**

( Common to CSE & IT )

Max. Marks: 70

Time: 3 Hours

Answer *all five* units by choosing one question from each unit ( 5 x 14 = 70 Marks )

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**UNIT-I**

1. a) Use the two methods below to normalize the following group of data:  
200,300,400, 600, 1000  
i) Min-max normalization by setting min=0 and max =1 4M  
ii) Z-normalization 4M  
b) What is data mining? Explain various data mining tasks. 6M

**OR**

2. a) Discuss various Numerosity reduction methods 7M  
b) Discuss various missing value filling methods 7M

**UNIT-II**

3. a) Compare and contrast operational database system and Data Ware House 7M  
b) Discuss about schemas for Multi Dimensional Databases 7M

**OR**

4. Explain apriori algorithm with example 14M

**UNIT-III**

5. a) Explain linear and non-linear regression methods 7M  
b) Write about K-Nearest classifiers 7M

**OR**

6. Explain Back propagation algorithm 14M

**UNIT-IV**

7. a) Explain k-means algorithm 7M  
b) Apply k-means algorithm and find centroids taking A & B as initial centroids  
A(1,2),B(9,10), C(8,6), D(5,5), E(3,3), F(6,1),G(2,2) H(2,8) 7M

**OR**

8. a) Categorize major clustering algorithms 7M  
b) Discuss outlier analysis 7M

**UNIT-V**

9. a) Write about mining the world wide web 7M  
b) Write about spatial mining 7M

**OR**

10. a) Write about Multimedia Database 7M  
b) What are basic measures for text retrieval 7M

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**R-14**

**Code: 4G172**

IV B.Tech. I Semester Regular Examinations Nov/Dec 2017

### **Enterprise Programming**

( Common to CSE & IT )

Max. Marks: 70

Time: 3 Hours

Answer *all five* units by choosing one question from each unit ( 5 x 14 = 70 Marks )

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#### **UNIT-I**

1. a) How to handle HTTP requests & response? Explain in detail with an example program. 7M  
b) Write a note on client/server model. 7M

**OR**

2. a) Explain how to install & configure PHP. 7M  
b) What makes PHP a choice among other scripting languages? 7M

#### **UNIT-II**

3. a) Write a PHP program to create login page 7M  
b) Write a PHP program that gives the number of occurrences of the expression in a string using functions 7M

**OR**

4. Explain, 14M  
(a) Class  
(b) Object  
(c) Interface

#### **UNIT-III**

5. a) Explain why cookies are becoming less trusted. 7M  
b) How to set a cookie on user computer? Explain with an example. 7M

**OR**

6. a) Write a PHP program to submit values using superglobals and globals. 7M  
b) Explain briefly how to redirect the HTTP headers to different locations. 7M

#### **UNIT-IV**

7. a) Explain briefly about the model view controller architecture. 7M  
b) Explain the function used to connect to a MySQL database. 7M

**OR**

8. a) How to perform a query in PHP? Explain with PHP code. 7M  
b) Explain briefly the three components of MVC architecture. 7M

#### **UNIT-V**

9. a) Explain briefly about the GET and POST methods 7M  
b) Write a note on Client-Driven Communication in detail? 7M

**OR**

10. a) Discuss about tooltips? 7M  
b) Explain about Expanding and Contracting Content 7M

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Hall Ticket Number :

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**R-14**

**Code: 4G174**

IV B.Tech. I Semester Regular Examinations Nov/Dec 2017

**High Performance Computing**  
( Computer Science and Engineering )

Max. Marks: 70

Time: 3 Hours

Answer all five units by choosing one question from each unit ( 5 x 14 = 70 Marks )

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**UNIT-I**

1. a) Define HPC? List its advantages. 3M
- b) Explain security issues in Distributed Computing and Parallel Computing? 11M

**OR**

2. a) What is Parallel Computing? Give example. 4M
- b) Explain about complexity measures in Parallel computing? 10M

**UNIT-II**

3. a) Define HPDC? Why we need it? 4M
- b) Explain the importance of different Attributes of clusters. 10M

**OR**

4. Briefly explain differences between Grid Computing and Cloud Computing? 14M

**UNIT-III**

5. a) Explain Service Provider role in Web Services? 6M
- b) What is the relation between web services and SOA? Explain in detail. 8M

**OR**

6. a) What is the need of web services? Explain. 5M
- b) Distinguish between SOAP and REST with suitable diagram? 9M

**UNIT-IV**

7. Define OGSA? Why we need to provide security to it? List and explain the security issues of the same. 14M

**OR**

8. a) What is Data Center? Mention any three Data Centers names? 3M
- b) Explain about Domain Specific services in OGSA? 11M

**UNIT-V**

9. a) What is OGSI? 3M
- b) Explain about Hosting Environment in GLOBUS GT3? 11M

**OR**

10. a) List out Advantages and disadvantages of GLOBUS GT3? 4M
- b) Explain about Grid Services Container in GLOBUS GT3? 10M

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Hall Ticket Number :

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**R-14**

**Code: 4G472**

IV B.Tech. I Semester Regular Examinations Nov/Dec 2017

**Mobile Communications**

( Common to CSE & IT )

Max. Marks: 70

Time: 3 Hours

Answer *all five* units by choosing one question from each unit ( 5 x 14 = 70 Marks )

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**UNIT-I**

1. a) Define Mobile Computing? Illustrate the architecture of Mobile Computing with neat sketch? 7M
- b) How radio interface works with GSM? 7M

**OR**

2. a) How Localization & calling works in GSM? Explain. 7M
- b) Describe the mobility management in GSM? 7M

**UNIT-II**

3. a) How can the tunneling and encapsulation be performed in mobile IP? Explain. 7M
- b) Explain mechanism for IP packet delivery using mobile IP concept 7M

**OR**

4. Explain the MAC layer issues - Hidden and Exposed terminals, Near and Far terminals? Brief the solutions for the same 14M

**UNIT-III**

5. a) What happens in the case of I-TCP, if the mobile is disconnected? Discuss. 7M
- b) Describe the applications of MANETs. 7M

**OR**

6. a) Discuss how snooping TCP acts as a transparent TCP and explain the role of foreign agent in it, in detail. 7M
- b) List out various routing algorithms in MANETs? Also describe any one routing algorithm in detail. 7M

**UNIT-IV**

7. a) Explain how power management is done in IEEE802.11 infrastructure architecture. 7M
- b) Draw Bluetooth protocol stack and write down functionality of each layer. 7M

**OR**

8. Explain in detail about protocol architecture of WAP. 14M

**UNIT-V**

9. a) What are different hoarding techniques, specified to resolve database issues in mobile computing? Explain in detail. 7M
- b) Compare in between power-aware and context-aware computing 7M

**OR**

10. Classify new data delivery mechanisms? And also explain push-based mechanisms, pull-based mechanisms & hybrid mechanisms? 14M

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Hall Ticket Number :									
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**R-14**

**Code: 4GA71**

IV B.Tech. I Semester Regular Examinations Nov/Dec 2017

**Management Science**

( Common to EEE & CSE )

Max. Marks: 70

Time: 3 Hours

Answer all five units by choosing one question from each unit ( 5 x 14 = 70 Marks )

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**UNIT-I**

1. Define management. Explain nature and significance of Management science.  
**OR**
2. Explain the principles of management as outlined by Henry Fayol.

**UNIT-II**

3. a) Analyze the features of different methods of production.  
b) The following information is about the shock absorbers used by automobile work shop. Annual demand 4800 units, Unit price Rs 300 Cost of placing an order Rs.50, Storage cost 3 Percent per annum  
Calculate: (i) EOQ (ii) Number of orders to be placed  
**OR**
4. What is product life cycle? Describe each stage in PLC with the strategies to adopt in each stage

**UNIT-III**

5. How the term recruitment different from selection? What are the sources of recruitment?  
**OR**
6. What is human resource planning? Explain the human resource planning process

**UNIT-IV**

7. Discuss the factors influence on working capital requirements of a firm.  
**OR**
8. Various activities involved in project are given below

Activity	Optimistic time (To)	Most likely time (Tm)	Pessimistic time (TP)
1-2	3	7	9
1-3	5	9	13
2-4	2	5	7
2-5	1	3	6
3-4	8	12	14
3-6	6	9	8
4-7	3	6	11
5-7	4	7	9
6-7	6	9	11

- a) Draw a PERT network diagram
- b) Find out the probability of complete the project in 30 days.
- c) Find out the project duration at 95 per cent probability.

**UNIT-V**

9. a) Explain the concept and significance of ERP.  
b) Explain the Importance of the TQM in organization.  
**OR**
10. What is MIS? Explain characteristics and benefits of MIS

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Hall Ticket Number :									
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**R-14**

**Code: 4G176**

IV B.Tech. I Semester Regular Examinations Nov/Dec 2017

**Software Project Management**

( Common to CSE & IT )

Max. Marks: 70

Time: 3 Hours

Answer *all five* units by choosing one question from each unit ( 5 x 14 = 70 Marks )

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**UNIT-I**

1. Explain the evolution of waterfall model in detail. 14M

**OR**

2. a) Explain in detail about the three levels of software economics. 7M  
b) Discuss conventional software management performance 7M

**UNIT-II**

3. a) Describe construction and transition phase. 5M  
b) Write engineering artifacts available at lifecycle architecture milestone. 9M

**OR**

4. Explain in detail about the principles of modern software management. 14M

**UNIT-III**

5. Discuss in detail about work flows of a software process. 14M

**OR**

6. a) Write about results of minor milestones in a modern process. 7M  
b) Justify the need of periodic status assessments. 7M

**UNIT-IV**

7. a) What are the four component teams in a default line-of-business organization and their responsibilities? 7M  
b) What is the need of process automation? Explain. 7M

**OR**

8. a) Discuss the conventional work breakdown structure issues. 7M  
b) With a neat diagram, explain the software project team evolution. 7M

**UNIT-V**

9. a) Explain management indicators 7M  
b) Define MTBF and maturity. Draw a graph for maturity expectation over a healthy project's life cycle. 7M

**OR**

10. a) Illustrate the two dimensions of process discriminators 7M  
b) Explain next generation cost models in brief 7M

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Hall Ticket Number :

**R-14**

**Code: 4G173**

IV B.Tech. I Semester Regular Examinations Nov/Dec 2017

**Software Architecture**

( Computer Science and Engineering )

Max. Marks: 70

Time: 3 Hours

Answer all five units by choosing one question from each unit ( 5 x 14 = 70 Marks )

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**UNIT-I**

1. a) With the help of block diagram of ABC (Architectural Business Cycle). Explain in detail the different activities which are involved in creating a software architecture. 9M
- b) Explain briefly the properties of a good software architecture design. 5M

**OR**

2. a) Describe the Architectural structure of a system. 7M
- b) Briefly explain, what does software architecture constitute? 7M

**UNIT-II**

3. a) State the problem of KWIC. Propose Abstract data types and implicit invocation styles to implement solutions for the same. 7M
- b) Define architectural style? Mention any four commonly used styles. 7M

**OR**

4. a) Explain the advantages and disadvantages of pipes and filters in architectural style 7M
- b) Discuss about table driven interpreters. 7M

**UNIT-III**

5. a) Explain the simple repository architecture for shared information with neat sketch. 7M
- b) Discuss about database integration in shared information system. 7M

**OR**

6. Explain in detail about Architectural design guidance world wide web case study. 14M

**UNIT-IV**

7. Discuss the motivation, applicability participants, collaborations, consequences and Implementation of Builder and singleton patterns. 14M

**OR**

8. a) Distinguish Architectural patterns and structural patterns. 7M
- b) Explain patterns for distribution. 7M

**UNIT-V**

9. a) How Architectural information captured in an ADL. 7M
- b) List the applications of ADL's system development. 7M

**OR**

10. a) Discuss about reusing architectural asset within an organization. 7M
- b) How to creating products and Evaluating a product line? Explain 7M

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