Question Bank
Semester – VI
Internet Technology(USIT601)

Questions: Advanced Learner

1. Draw & explain a neat labeled diagram of IPV4 datagram header format.
2. What is fragmentation? Which fields changes over datagram during fragmentation in routing? Explain.
3. What are the types of TCP options? Explain.
4. Short note on DHCP.
5. What are the concepts of TELNET? / Explain the time sharing environment.
6. Explain the term NVT.
7. How does an ARP cache control module controls cache table entries in ARP package?
8. What are the types of OSPF packets? What is the purpose of each one?
9. What do you understand by 3 way handshaking in TCP Connection establishment? Explain.
10. Explain the architecture of WWW.

Questions: Slow Learner

1. Short note on DNS.
2. Draw & explain a neat labeled diagram of TCP segment header format.
3. What are the services of UDP? Explain.
4. Explain IPV6 packet header format.
5. List & explain any two types of SCTP chunks.
6. Describe mail transfer & termination phase of SMTP.
7. Explain the following terms: POP , IMAP
8. Explain the following algorithm of traffic shaping:

   Leaky bucket, Token bucket
9. Explain integrated services/ Differentiated services.
10. Explain file transfer in FTP.

Assignments

1. Describe the HTTP transactions.
2. What is the concept of 3 way handshaking in TCP Connection terminations? Explain.
3. What are the types of BGP packets? What is the purpose of each one?

4. Specify the several notations of IPV6 addresses.
5. *List & explain the services of STCP.*

Project Management (USIT602)

Questions: Advanced Learner
1.   Write short notes on improving team effectiveness.
2.   How does improving team effectiveness help in growth?
3.   What is Inception in Life Cycle Phase of Software Engineering? Explain with an example.
4.   How to manage artefacts in Project Management?
5.   What are the Software process workflows?
6.   Explain milestones with types and example.
7.   What is Automation Building Blocks?
8.   Explain Project Environment with example.
9.   What are Management indicators and Quality Indicators?
10. Explain Process Discriminants.

Questions: Slow Learner
1.   Short note on Waterfall Model.
2.   What are advantages and disadvantages of Reducing Software product size?
3.   What are the principles of modern software management?
4.   What are the principles of conventional software engineering?
5.   What are the Iteration workflows?
6.   Describe Work Breakdown Structure (WBS) in Project Management.
7.   Explain Line-of-Business Organizations.
8.   What is Project Organizations?
9.   Explain seven core metrics.
10. Explain Metrics Automation.

Assignments
1.   What are the techniques for doing "activity time" estimates?
2.   Describe all the steps involved from the time of project initiation to project completion?
3.   What is a decision support system (DSS)?
4.   What is the project goal? What is its significance?
5.   Is it necessary for tasks to be completed in a logical sequence?

Data Warehousing (USIT603)

Questions : Advanced Learners

1. What is Data Warehouse?

2. List and explain the characteristics of Data Warehouse.

3. List and explain the components of OWB?

4. Explain the steps to install Oracle Database Software.

5. Explain the relational implementation of a dimensional model.

6. Explain the relational implementation of a dimensional model –star schema.

7. Explain the INPUT group and OUTPUT group of attributes of object in mapping editor.

8. What are mapping operators? Explain any two source target mapping operators in detail.

9. Write the steps to create new mapping and adding source and target tables.

10. Write the steps to add transformation operators.

Questions : Slow Learners

1. State and justify the characteristics of data warehouse with suitable example.

2. Need of Data Warehouse or why Data Warehouse?

3. Name and define the utility that has to be configured before creating an Oracle Database.

4. What are the hardware and software requirements for installing Oracle Warehouse Builder?

5. Name and explain the object that are relational and dimensional object in an oracle module.

6. Explain cube and dimensions with examples.

7. Explain the OWB operators.

8. Explain the data flow operators.

9. Explain use of key Lookup operator with example.

10. What is the role of LOOKUP operator in mapping?

Assignment

1. Differentiate between Operational System and Informational System **OR** OLTP and DW **OR** Write any five significant Difference between OLTP DB and DW DB.

2. Draw a neat diagram that illustrates the various components of OWB.

3. Write the steps for designing the ACME data warehouse.

4. Define data flow operators. Explain the role of aggregators and filters in ETL mapping.

5.What is expression operator? Explain the mapping of a data field SALE_DATE to a numeric field DAY_CODE by applying TO_CHAR () and TO_NUMBER () functions through expression operator. The string format for TO_CHAR () function is YYYYMMDD.

Geographic Information Systems (USIT606)

Questions: Advanced Learner

1. What is geometric transformation? Explain map-to-map and image-to-image transformation.
2. List and explain geometric transformation methods with diagrams.
3. Explain Affine transformation in detail.
4. Explain RMS error.
5. Write a short note on USGS DEMs.
6. What is the Geographic Coordinate System?
7. Convert the following values in degrees-minutes-seconds and decimal degrees 45◦52"30'
8. Write a short note on Datum.
9. What is Map Projection? List and explain types of Map Projections.
10. Explain the term false origin, false easting and false northing with the help of diagrams.

Questions: Slow Learner

1. List and explain elements of the Raster Data Model.
2. List the Types of Raster data.
3. Explain Raster Data structures.
4. What attribute data? How to create attribute data in GIS?
5. List and explain types of attribute data.
6. Explain 4 types of database design with diagram
7. What is GIS? List the components of GIS.
8. What is Spatial data? Explain its types.
9. Explain the term Topology.
10. List GIS operations. Explain any two (this may be any number)

Assignments

1. Explain descriptive statistics.
2. Explain the types of graphs with diagrams.
3. write a note on attribute data query.
4. Write a note on spatial data query.
5. Explain raster data query.