**P/ID 16101/KAA/ PITA**

Time : Three hours                Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1.  (a)  What is an accumulator? State the functions performed on it.

Or

    (b)  How a stack is organized? What are the uses?

2.  (a)  Why pipelining is important? How do you classify?

Or

    (b)  Compared to conventional, how risk and pipelining are better.

3.  (a)  How subtraction of two's complement numbers are done? Illustrate with examples.

Or

    (b)  Discuss few floating point operations, with examples.

4.  (a)  Give suitable examples for asynchronous data transfer and illustrate the concept.

Or

(b)  Write about serial communication. How this is achieved?

5.  (a)  How memories used in computers are organized?

Or

(b)  What is interprocessor arbitration? How this is resolved.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

6.  Explain different instruction formats and explain any two, in detail.

7.  Describe data transfer and manipulation instructions.

8.  Explain instruction pipelining concept and illustrate with examples.

9.  When vector processing is preferred? Why?

10. Explain briefly on I/O organisation.

11. Describe interrupt handling procedure and write the sequence of actions.

12. Explain auxiliary memory devices and their uses in data storage.

13. Write short notes on :

    (a) Main memory devices.

    (b) Multiplication of binary numbers.

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Time : Three hours          Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions

1.  (a)  Describe the object oriented features of java Language.

Or

   (b)  What are the special operators and bit-wise operators in java? Explain the purpose of each special operator in detail.

2.  (a)  Explain method overriding with example program.

Or

   (b)  Explain the importance of *super* keyword in java. Write code to depict the uses of *super* keyword.

3.  (a)  What is package and how to create a package in java? Illustrate with example.

Or

   (b)  What is a thread? Describe the life cycle of a thread with suitable example.

4.  (a) Write java program to find the frequency of a word in a string.

       Or

    (b) What are different ways to create a string object in java? Explain.

5.  (a) Write java program to list all the machine name and IP addresses in a LAN.

       Or

    (b) What is socket and how does a socket works? Illustrate with an example.

       PART B — (5 × 10 = 50 marks)

       Answer any FIVE questions.

6.  Explain various control statements in java language and illustrate each with an example.

7.  What is array and how to declare an array in java? Given two array A and B which are sorted in ascending order. Write a java program to merge them into a single array.

8.  (a) Describe various forms of implementing interfaces.

    (b) Explain the method in java language for interprocess communication and also demonstrate the interprocess communication with suitable example.

9. What is applet program and how it is differs from java program? Write an applet program to implement a simple calculator.

10. What are exceptions and how they are handle in java? Explain in detail with suitable example.

11. (a) Write java program to send a message from client to server and receive a response back.

    (b) Describe the hierarchy of java input stream classes in detail.

12. Describe various classes and method available in java for networking.

13. Explain different layout mangers in java in detail.

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# P/ID 16103/ KAC/PITE

Time : Three hours                    Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1.  (a)  How do you visualize system development as a process change? Explain.

Or

(b)  Write briefly on object oriented construction.

2.  (a)  Explain the phrase "object oriented system development in model building".

Or

(b)  Describe the requirements / analysis model.

3.  (a)  How real time systems are classified? Discuss.

Or

(b)  Why relational DBMS is preferred? What is the role of DBMS in OOSE.

4.    (a)  Explain the component management and testing.

                        Or

      (b)  Describe project staffing criteria and their selection.

5.    (a)  How the system development for warehouse management system is initiated and proceeded?

                        Or

      (b)  Explain briefly on OMT (Object Modelling Technique).

            PART B — (5 × 10 = 50 marks)

            Answer any FIVE questions.

6.    Explain the system development characteristics and the system development life cycle model.

7.    Discuss how reuse concept is used in system development. How it helps in time management?

8.    Explain objects, classes, instances. How are they employed in building architecture?

9.    Write about the testing model. How the testing criteria are framed and Implemented?

10. Explain the managerial issues involved in object oriented Software Engineering. How are they handled?

11. Explain few software metrics and discuss how they contribute to software quality assurance.

12. How the design model is developed for telecom switching system? Illustrate.

13. Write short notes on :

   (a) verification and validation

   (b) object oriented design (Booch model).

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Time : Three hours                Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1.    (a)    What are all the common properties of a form and color? Explain

Or

(b)    Write a simple VB program which add values from two textbox controls and display the result in label on button click.

2.    (a)    How to display tabular data in a non-proportionally space font?

Or

(b)    In which scenario select case is more preferable? Explain.

3.    (a)    What is Dynamic array? How to allocate memory for dynamic array?

Or

(b)    Write down the properties of List and Combo box.

4. (a) What is meant by Runtime Type Information? Explain

Or

(b) Explain how to work with common dialogue boxes.

5. (a) Develop a VB program that combines both keyboard and mouse activity.

Or

(b) List down some of the most common methods of the File System Object.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

6. Write a brief note on Visual Basic Editing tools.

7. (a) How VB treats numbers of different types?

(b) Explain Single precision, double precision, currency, date and variant data types.

8. With an example and flow diagram explain determined and indeterminate loops in visual basic.

2 **P/ID 16105/KAE/ PITJ**

9.   How to define user defined functions? Write a function with two string variables as parameters in visual basic that counts the number of times a character appears in string and return an integer (count).

10.  With an example in visual basic explain ripple sort and insertion sort.

11.  Write a brief note on how to handle multiple forms at runtime.

12.  Explain in detail how debugging tools work in visual basic.

13.  Develop a Visual Basic program that adds data to exiting file and also read data from the same file in a window form.

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Time : Three hours                    Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1.  (a)  Discuss the motivations for developing distributed databases.

Or

(b)  What is mixed fragmentation? Explain with a suitable example.

2.  (a)  Discuss how temporary relations in multiple activations of parametric queries help in reducing activation costs with an example.

Or

(b)  List and discuss the problems involved in query optimization.

3.  (a)  Write a brief note on detection and resolution of inconsistencies during a network partition.

Or

(b)  Describe the cause and possible scenarios of false deadlocks.

4.  (a)  Compare and contrast complex and composite objects with suitable example.

Or

   (b)  What is path portioning? Describe in detail the use of indexing in path partitioning.

5.  (a)  Explain the use of threads for obtaining good load balancing in Dynamic processing model in detail.

Or

   (b)  Explain the forms of Inter-operator Parallelism, which can be exploited for Query Parallelism.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

6.  Describe the relational model and algebra, including the basic definitions and operations on relations.

7.  Write a detailed note on distributed transparency for update applications with the various possible levels that are necessary.

8.  Describe the 2-Phase-commitment protocol in detail with its need, its phases and how it can address various site failures and lost messages.

9. Summarize Obermarck's algorithm for distributed deadlock detection.

10. Write a note on the architectural issues involved in creating object databases using client/server model.

11. Discuss the features of object clustering. What are the difficulties associated with object clustering? Explain the basic storage models for object clustering.

12. Describe the fault-tolerance/ failover strategies in replicas of parallel databases.

13. Explain the need and working of Parallel-Hash-Join algorithm.

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**P/ID 16108/KAH/**
**PITF**

Time : Three hours                    Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1.   (a)   What is mean by electronic commerce? List out the potential benefits of E-commerce.

Or

(b)   Discuss about the main features of digital signature.

2.   (a)   Mention the applications of Edi Internet, discuss any two.

Or

(b)   Write short note on intranet associated risk.

3.   (a)   Illustrate the standard issues for Internet security.

Or

(b)   What is mean by secure electronic payments and protocols?

4.   (a)   List out the functionality of firewall discuss.

Or

(b)   Discuss about firewall implications.

5.   (a)   Define an intelligent agent. State the capabilities of intelligent agent.

Or

(b)   Mention the scope of marketing in web based marketing. Discuss.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

6.   Explain in detail about electronic commerce on business model.

7.   Compare cryptography issues with privacy issues.

8.   What is master file? Discuss about reference data in risks.

9.   Describe the basic concepts of security organization.

10.   Write short note on TCP/IP.

11. Illustrate the basic principles of electronic check and electronic cash.

12. Explain in detail about the fifth "P" personalization.

13. Discuss about additional authentication methods for encryption techniques.

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Time : Three hours                    Maximum :75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1.   (a)   What is servlet chaining? How it is used to develop an application?

Or

(b)   Why do you need HTML forms?

2.   (a)   Write notes on java beans development kit.

Or

(b)   How does the notable beans support for your applications?

3.   (a)   Illustrate the EJB requirements.

Or

(b)   Differentiate EJB session and EJB entity beans.

4.   (a)   Write simple code to connect the EJB client.

Or

(b)   How do you deploy a code in client and server side?

5.  (a)  Is Pearl a scripting language? If so, how does it is superior to other scripting language?

Or

(b)  Write the control structures that are supported by pearl.

PART B— (5 × 10 = 50 marks)

Answer any FIVE questions.

6.  Discuss in detail on applet to servelt communication with an example.

7.  What do you understand form Glasgow development? Explain.

8.  What are RMI and EJB in Java? How do you effectively use these concepts for the real time applications?

9.  Demonstrate the concept Message Driven Bean in EJB.

10. Illustrate the local and remote session beans operation in EJB.

11. Implement a simple scripting language to process a list of numbers.

12. Design and implement a online shopping using EJB.

13. Using HTML forms, design an application for online ticket booking.

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Time : Three hours                    Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions

1. (a) Explain windows programming concepts.

Or

(b) What is meant by MSDN? Explain.

2. (a) How to create utility projects? Explain.

Or

(b) Discuss about the feature of procedure programming.

3. (a) Discuss about MFC Library.

Or

(b) What is meant by drawing in client area? Explain.

4. (a) Explain the features of graph applications.

Or

(b) Describe the advanced features of word processor.

5.   (a)   Write short notes on ActiveX controls.

Or

(b)   Describe the features of DHTML.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

6.   Discuss on windows fundamentals in detail.

7.   Explain in detail about windows application framework.

8.   Describe bar chart with its resources.

9.   Explain the graph application with example.

10.   Elaborate about how to add ActiveX control to a Visual C++ project.

11.   Discuss on container application in detail.

12.   Discuss about Object Linking and Embedding in detail.

13.   What is meant by COM? Explain in detail.

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**P/ID 16110/ KAK/PITK**

Time : Three hours                    Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1.   (a)   Discuss the following:

(i)   Abstraction

(ii)   Modularity

Or

(b)   Explain the method of identifying object in object oriented system.

2.   (a)   What is use-case diagram? Draw use case diagram for a banking system.

Or

(b)   What are the responsibilities of classes and objects? Explain.

3.   (a)   What is coupling? Explain the various types of coupling.

Or

(b)   Explain the structure of CORBA.

4.  (a)  Discuss the activities of view layer classes.

Or

(b)  Compare GUI and OOUI.

5.  (a)  Describe the guidelines for developing test plan.

Or

(b)  write note on usability testing.

PART B — (5 × 10 = 50 marks)

Answer any FIVE of the following.

6.  Explain SDLC lifecycle in detail.

7.  Explain the various UML diagrams.

8.  Draw use case diagram for library management system. Explain the method of extending association.

9.  Explain Association, Generalization and Aggregation with respect to object oriented development.

10. Explain ODBC mechanism for virtual database system.

11. Develop a class diagram for Bank ATM system.

12. Describe activity diagram for account transaction system and user interface display in ATM system.

13. Explain the various testing strategies.

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Time : Three hours                    Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1.    (a)  What are Internet services? How are they got used?

Or

(b)  How Internet connection is set up? state the components used in them?

2.    (a)  What is an intranet? state the difference with internet?

Or

(b)  How a LAN set up is connected into Internet?

3.    (a)  How do you create web based e-mail? Illustrate.

Or

(b)  State and explain the uses of outlook express.

4.  (a)  What is meant by IRC? illustrate.

                      Or

    (b)  Compare web based chat with device chat
         system.

5.  (a)  How privacy Issues are handled in web
         browsers?

                      Or

    (b)  Write the salient features and guidelines of
         MS-IE .

              PART B — (5 × 10 = 50 marks)

              Answer any FIVE questions.

6.  Explain how media contents are handled in
    Internet effectively and efficiently?

7.  Describe the TCP/IP protocol's influence on ISP.

8.  Explain how high speed connection is obtained?
    What facilities are to be augumented?

9.  How Eudora is used in sending /receiving files.
    Illustrate.

10. Discuss the formatting procedure for emails and its uses.

11. Explain MUD and MOO.

12. Describe netscape and navigator tools. What are the applications?

13. Write short notes on :

    (a) Video conferencing

    (b) Cable modem.

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Time : Three hours                    Maximum : 75 marks

PART A — (5 × 5 = 25 marks)

Answer ALL questions.

1.   (a)   Distinguish between project management and product management.

Or

(b)   List out the outline of stepwise project planning. Discuss.

2.   (a)   Describe the COCOMO II method of costing with its merits and demerits.

Or

(b)   What are the well-known schedule compression techniques? Explain them.

3.   (a)   How do you control the scope of a project? What are the prerequisites for scope control?

Or

(b)   Discuss about risk management.

4.  (a)  Define quality. What is done during quality planning for a project?

Or

(b)  How do you administer a contract? What is the need for contract administration?

5.  (a)  Mention the content of a project in software project management. Discuss.

Or

(b)  Write short note on small projects.

PART B — (5 × 10 = 50 marks)

Answer any FIVE questions.

6.  Explain the project selection criteria and the work break down structure.

7.  Describe any one method of cost estimation and budgeting for a project.

8.  Describe the process of building and analysing CPM schedule.

9.  Define rusk. How are risks handled? What are the various process that are involved in risk evaluation?

10. List the factors that are involved in making a team. Explain the characteristics.

11. Describe the basic components of PRINCE 2.

12. Explain in detail about cash flow forecasting.

13. Illustrate the software quality practical measures in software project management.

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Time : Three hours                    Maximum : 100 marks

PART A – (6 × 5 = 30 marks)

Answer any SIX questions.

1.  What are the valid types of data that the main ( ) can return in C++ language? Discuss.

2.  What is an operator function? Describe the syntax of an operator function.

3.  Compare and construct the notions of struct and class in C++.

4.  What do you mean by dynamic initialization of a variable? Give an example.

5.  What are the different forms of inheritance? Discuss.

6.  Define Collision. Mention some of the collision resolution techniques.

7.  Draw a directed acyclic graph with four vertices and give its topological sort.

8.  List out the time complexity of insection sort and quick sort algorithm.

PART B – (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.  Explain in detail about polymorphism and also explain its advantages.

10. (a) Explain copy constructor with suitable C++ coding.

    (b) Mention the rules for overloading operators.

11. Write a program using get and getline member function to explain stream input.

12. What is the difference between the statements?

    C in >> ch ; Ch = cin.get ( ); Give example for each.

13. What is a linked list? Explain with suitable program segment the operations of a linked list.

14. State the Kruskal's algorithm to compute the MST of a graph.

15. Write down the complete heap sort algorithm and illustrate its working to sort the list

   {25, 73, 101, 95, 68, 82, 22, 60}

16. Write a program to implement binary search and compute its complexity.

17. What is hashing? Classify hashing functions based on the various methods.

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Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.  Write the representation formats used for floating point number. Give an example.

2.  Draw the bus system for four registers and explain its working.

3.  Give the details of encoding ALU operations in computer architecture.

4.  What is a supercomputer? List out the requirements and roles of supercomputer.

5.  With diagram explain the principle of 2bit by 2bit array multiplier.

6.  With a typical case of I/O interface unit demonstrate the communication link for I/O device.

7.  Brief on the details of asynchronous data transfer.

8.  Define multiprocessor. Under which conditions multiprocessors are required /used?

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9. Discuss the limitations of data types used in computers with examples.

10. Explain the technical details of Arithmetic Logic shift unit.

11. Describe the requirement and design of general register and stack organization in computer architecture.

12. With suitable example explain RISC pipelining arithmetic operations.

13. Draw the hardware units included in computers to perform arithmetic operations and explain the operations.

14. With diagram explain the organization and working of I/O devices.

15. What is an interrupt? Give a detail note on priority interrupt.

16. Draw the memory hierarchy and compare the operational characteristics of memories in the hierarchy.

17. Discuss the mapping techniques used in cache memory organization.

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Time : Three hours                     Maximum : 100 marks

PART A – (6 × 5 = 30 marks)

Answer any SIX questions.

1.   Write the significance of NULL VALUES in a DB.

2.   What is a relation? Relational model? Explain.

3.   When weak entity set is encomputered? Illustrate.

4.   State the significance of normal forms.

5.   What are index files? Explain.

6.   What is distributed databases? When it is required?

7.   Define a transaction. How this is implemented?

8.   What is concurrency control? Explain.

PART B – (7 × 10 = 70 marks)

Answer any SEVEN questions.

9. Describe a database system and the components. List the functions carried out in each components.

10. Explain SQL, embedded SQL and recursive queries. with examples.

11. Discuss the importance of decomposition. How this is achieved using FD (Functional Dependencies)?

12. Explain object based databases. How table inherittance and inherittance in SQL are handled?

13. What is the principle of hashing? Explain state and dynamic hashing. Illustrate the applications.

14. Describe the procedure for every optimization, with examples.

15. Explain deadlock handling and recovery system.

16.  Compare database system architecture and client/server architecture.

17.  Write short notes on :

(a)  Heterogeneous database system

(b)  MS SQL server.

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# DECEMBER 2017 P/ID16154/PITSD

Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.  What are the difference between a trap and an interrupt? What is the use of each function?

2.  What services are to be provided by an OS for IPC? Discuss.

3.  How can you implement Round Robin scheduling algorithm? Explain.

4.  In the Interprocess communication there are three explicit Interprocess interaction forms what are they? Explain them.

5.  Write short notes on Deadlock recovery.

6.  Can you suggest an algorithm to create a partition, P, under dynamic memory allocation?

7.  Mention the allocation strategy in operating system. Discuss in detail.

8.  Write short notes on UNIX commands.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.  Explain in detail about Role of operating system.

10. What is the purpose of device management? Explain in detail.

11. Write short notes on directory structure.

12. Describe the basic concepts for shortest Job first scheduling.

13. Compare Internal fragmentation with paging.

14. Explain detail about file management and their activities.

15. Write short note on windows operating system, and also compare with UNIX operating system.

16. Define critical section. Explain in detail about their requirements.

17. Describe the basic concepts for multiple processor scheduling.

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Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.    Write a Java program to read an integer and print its multiplication table. Modify the program so that results are written into a file.

2.    What are the different types of access controls that can be used in inheriting a class? Explain with suitable example.

3.    Differentiate the use of keywords throw and throws with suitable example.

4.    How is Java code documented? Explain the features of documentation with example.

5.    Write a Java program that displays a web page whose URL is given.

6.    What is a servlet? How is a servlet created using Java? Give an example to support your explanation.

7.    Write a Java program to display a menu of food items and read the users choice and quantity, and display the bill, initialize the items and price.

8.    Explain the data types in Java.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.    What are the benefits of inheritance? Explain with example different types of inheritance as supported in Java. Describe the following specific to your example: (a) Super (b) Overriding (c) Abstract class.

10.   Consider the following application: The server side is a quote server that listens to its Datagram socket and sends a quotation to a client whenever the client requests it. The client simply makes a request of the server. Write a Java program to implement this client/server example.

11.   Consider a database having student mark details. Write a Java program to connect to this database and print the name and roll number of the students who have scored the highest mark in all courses of a semester.

12. What are the different ways of creating thread? Explain with suitable example. With a suitable example, describe how inter thread communication and synchronization is implemented.

13. Define an interface to declare methods to increment time and to display time. Define another interface that declares methods to set time. Define class digital clock that represents time in the format hr/min/sec and another class Minute clock to represent time in the format hr/min. Have these two classes to implement the methods defined in both interfaces. Write a program to test the classes.

14. Write a Java program to design a simple a calculator. Position the buttons as in a calculator and read the numbers and operators clicked and display the result of the operations.

15. Describe the life cycle of a servlet. Explain how HTML to servlet communication. Give an illustration.

16. What is synchronization? Explain.

17. Briefly explain about I/O streams and file streams.

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Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.   List and explain the various properties of Labels.

2.   What are Event procedures? Explain any two with suitable example.

3.   Explain how argument is passed by reference and are value in a procedure call.

4.   Explain the use of shell sort and Bubble sort with example.

5.   Compare static arrays and Dynamic arrays.

6.   Briefly explain how to work with common Dialog Boxes.

7.   Give any three built in numeric function with example.

8.   Explain about Random Access files.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.   Discuss about the various properties of Command Buttons.

10.  Explain about Indeterminate Loops with suitable example.

11.  List any five string functions used in Visual Basic with example for each.

12.  How Binary search is done? Explain with example

13.  Explain how List and Arrays can be used with Functions and procedures.

14.  How to test a program? Explain how to design programs which make testing easier?

15.  Explain about line control and shape control in Graphics.

16.  How to monitor mouse activity?

17.  What are DLL servers? Explain the use of DLL servers with example.

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Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.  What are the different types of concepts used in project management?

2.  Write short notes on software process methods.

3.  Discuss briefly about software risks.

4.  Write short note on risk assessment.

5.  Discuss the model of system engineering hierarchy.

6.  Explain about user interface design.

7.  Write short notes on unit testing.

8.  List out the debugging approaches in software testing.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.  Describe briefly about software characteristic and its applications.

10. Explain in detail about software measurement.

11. Explain the formal technical reviews followed software quality assurance in detail

12. Discuss about (a) Problem based estimation (b) Process based estimation.

13. Describe the architectural design of transaction mapping.

14. Discuss about functional modeling and behavioral modeling.

15. Briefly explain requirement analysis.

16. Briefly discuss about control structure testing.

17. Explain in detail about validation testing.

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Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.  Specify the purpose of unified approach? Explain

2.  Discuss about object relationship and association.

3.  Explain use case driven approach for identifying classes.

4.  What are activities of designing view layer classes? Explain.

5.  Explain user satisfication testing.

6.  What is cohesion? Explain.

7.  Discuss the concepts used in macro development process.

8.  Draw the various UML diagrams.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.  Explain OOSD life cycle in detail.

10. Draw the OMT data flow diagram for ATM system.

11. Explain the various issues related with object interoperability.

12. List out and explain user interface design rules.

13. Explain the various test case generation methods and test plans.

14. Explain various object relationships with examples.

15. Explain Black box testing with example.

16. Explain the various database models.

17. Explain static and dynamic model with example.

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2          **P/ID 16161/PIE06**

Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.   Write short notes on creating variables.

2.   Explain cookies.

3.   What is method argument?

4.   Explain page_unload event.

5.   Write short notes on form collection.

6.   Explain passing parameter.

7.   Write short notes on password element.

8.   What is stack?

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.   Write brief notes on dialogue boxes.

10.  Explain form object in detail.

11. Discuss briefly about indexers with example.

12. Describe hyperlink control in detail with example.

13. Explain in detail about query string collection.

14. Describe user defined functions.

15. Explain string object in detail.

16. Write brief notes on multicasting in delegates with example.

17. (a) Discuss briefly about repeater control with example

    (b) Write short notes on console applications.

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Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.  Describe the role of designer.

2.  Write short notes on adding new forms to a program

3.  Describe data source windows.

4.  Explain HTTP request.

5.  Discuss about using the data cache.

6.  Explain writing do loops.

7.  Describe my Namespace object and descriptions.

8.  Write short notes on elements of control class.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.  Write brief notes on properties window.

10. Discuss briefly about working with multiple forms.

11. Explain in detail about adding a second data grid view object.

12. Write brief notes on site map class with events and properties.

13. Explain in detail about ASP.Net and session date.

14. Describe adding menus using menu strip control.

15. Discuss briefly about organising control on a form.

16. How to create SQL statement with query builder.

17. (a) Discuss briefly about validation.

    (b) Explain WCF side by side mode in ASP.NET.

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Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.  List the software requirements for making multimedia.

2.  Write about the applications of multimedia.

3.  What are the output devices used in multimedia.

4.  Explain two types of authoring tools in multimedia.

5.  Write short notes on multimedia in business.

6.  Explain briefly about MIDI audio.

7.  Write about Internet addresses.

8.  Compare terrestrial and satellite broadcasting.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9. Explain interactive and non-interactive multimedia with example.

10. Write notes on

(a) Project manager.

(b) Interface designer.

(c) Multimedia designer.

(d) Video specialist.

11. Explain the basic software tools used in multimedia.

12. Describe the storage and connecting devices used in multimedia environment.

13. Explain about hypermedia and hypertext.

14. Write about data compression and its types.

15. Write in detail about designing the structure of multimedia.

16. Explain briefly about multimedia on the web

17. What is copyright and how to acquire a copyright?

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2 **P/ID 16164/PIE09**

Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.   What are the basic building blocks of networks? Discuss.

2.   List out the various encoding techniques explain each.

3.   What are the link configurations that are available in HDLC? Discuss.

4.   Write short note on contention/ collision.

5.   Differentiate between service interface and peer to peer interface.

6.   What is ICMP messages? How will report network information by ICMP?

7.   Draw the OSFP header format. Explain.

8.   What is the difference between the secret key algorithms, public key algorithms and the hasting algorithms in cryptograpy?

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.   Explain the sliding window flow control technique.

10.  Explain the operations of the TCP/IP protocol.

11.  With neat diagrams, describe the various topologies used in networks.

12.  Describe the wirless LAN architecture with its access mechanism.

13.  What is switching? Discuss all different types of switching techniques.

14.  Briefly explain about Datagram protocol with suitable flow graph.

15.  What is routing discuss the distance vector algorithm with suitable example.

16.  Discuss different congestion control algorithm.

17.  Write short notes on

     (a)   Internet control protocol.

     (b)   Internet transport protocol.

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Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.    What are the criteria an algorithm must satisfy?

2.    Write notes on recursive algorithm.

3.    Write the control abstraction for greedy method.

4.    What is the optimal ordering to the optimal storage on tape problem with $n = 3$ and $(l_1, l_2, l_3) = (5, 10, 3,)$.

5.    Discuss on breadth first search procedure.

6.    Write notes on Hamiltonian cycles.

7.    Write the control abstraction for LC search.

8.    Discuss on comparison Trees.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9. Explain Randomized algorithms.

10. Explain the procedure for merge sort with an example.

11. Explain selection sort with example.

12. Discuss on strassen's matrix multiplication.

13. Explain single source shortest path problem.

14. Describe the multistage graph problem. Also develop an algorithm for the same using backward approach.

15. Write notes on Back Tracking.

16. Explain traveling sales person problem.

17. Write notes on oracles and advisory arguments.

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Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.   Explain the session tracking with Servlet.

2.   List out the Servlet Filters.

3.   Write short notes on EJB container functionality.

4.   Describe the RMI client components.

5.   Explain the custom tag concepts.

6.   Describe the modes of operation in Bean Builder.

7.   List out the skeleton operations.

8.   Explain the JSP dynamic web content with example.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.   Explain in detail about the web_application archive.

10.  Write a brief note on Bean Color component.

11. Briefly explain the Enterprise bean lifecycle methods.

12. How to declare the remote interfaces? Explain.

13. Discuss in detail about the scope of JavaBeans

14. Explain the creation of Molecule Bean in detail with proper diagram.

15. Describe in detail about the container managed transaction attributes.

16. Explain the RMI over inter –ORB protocol.

17. Write a short note on

    (a) JSP with simple HTML code

    (b) Tag Extensions.

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Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.    Explain career criminals.

2.    Discuss about fence.

3.    Write short notes on direct attack.

4.    Describe design of firewalls.

5.    Explain security planning.

6.    Write short notes on trapdoors.

7.    Write down the unacceptable reasons for all-or-none protection.

8.    Discuss about risk analysis.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.    Describe the salami attack with example.

10.   Explain the password guessing steps in detail.

11. Write brief notes on access decisions with its factors.

12. How a network differs from a stand-alone environment? Explain.

13. Discuss briefly about security threat analysis.

14. Explain the kinds of malicious code with its characters.

15. Describe the goals in protecting objects.

16. Write brief notes on social engineering.

17. (a) Explain the difference between laws and ethics.

    (b) Write short notes on principles of fair information policies.

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Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.    Write on mobile and wireless devices.

2.    Discuss on space division multiplexing.

3.    Give the basics of satellite systems.

4.    Explain about handover in satellite systems.

5.    Discuss the disadvantages of WLAN.

6.    Write on mobile quality of service.

7.    Explain shortly on Dynamic Host Configuration Protocol.

8.    Explain about performance enhancing proxies.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.    Discuss on basic reference model with diagrams.

10.   Explain on CDMA technology.

11.   Write about UMTS architecture with diagrams.

12. Give the applications of satellite systems.

13. Explain about HIPERLAN.

14. Write on IEEE 802.15 technology.

15. Discuss about Mobile IP.

16. Write on Mobile ad-hoc networks.

17. Explain on TCP over 2.5/3G wireless networks.

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Time : Three hours                         Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.   Explain the means – Ends analysis.

2.   Describe the Logical inference.

3.   Write short notes on Utility theory.

4.   Explain the test set methodology.

5.   Discuss the two models of communication.

6.   Explain the search strategies.

7.   What is mega node?

8.   Explain the error recovery rules.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.   Explain the problem solving agents in detail with example.

10.  Briefly explain the characteristics of PROLOG.

11. Describe in detail about the semantic constraints on preferences.

12. Explain the working procedure for human brain with proper diagram.

13. Discuss in detail about the signal processing.

14. Explain in detail about the probabilities and its computation.

15. Write a brief note on knowledge engineering process system.

16. Briefly explain the exploration and BANDIT problems with diagram.

17. Discuss about the major classes on

    (a) Navigation algorithm.

    (b) Motion planning algorithm.

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Time : Three hours                    Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1.  What is interlacing?

2.  What do you mean by output primitives? State two examples of it.

3.  Define flood fill algorithm.

4.  Why homogeneous co-ordinates system is needed?

5.  What do you mean by perspective projection?

6.  List the transformations involved in the 3D transformation process.

7.  State any two properties of Bezier curve.

8.  What is viewing transformation?

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9.  Define and differentiate random scan and raster scan devices.

10. Describe about any two input functions in detail.

11. Explain window to view port coordinate transformation.

12. With suitable example, explain curve clipping algorithm.

13. What is meant by visible surface detection? Explain about the visible surface detection methods.

14. How will you perform three dimensional rotation about any arbitrary axis in space? Discuss.

15. Briefly explain parametric cubic curve and its applications.

16. Describe about Bresenham's line algorithm.

17. With a neat block diagram, explain the conceptual frame work of interactive graphics.

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