D 10654 (Pages : 2) Name.....

Reg. No.....

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS—UG)

Information Technology

BIT 5B 12—MANAGEMENT INFORMATION SYSTEMS

(2019 Admissions)

Time : Two Hours Maximum : 60 Marks

Section A (Short Answer Type Questions)

Answer at least **eight** *questions.*
Each question carries 3 marks.
All questions can be attended.
Overall Ceiling 24.

1. Write short notes on Management Information system.
2. Explain briefly Decision Making process.
3. What are different types of sub systems ?
4. Enumerate various types of system concepts applied to MIS.
5. What are different methods of Decision Making Process ?
6. Discuss the steps involved in decision making process.
7. Write short note on Decision Support System.
8. What is marketing information system ?
9. Distinguish between Data and Information.
10. Explain how information reduce uncertainty.
11. Write a note on New well -Simon Model.
12. Explain concept of human cognition.

(8 × 3 = 24 marks)

Section B

Answer at least **five** *questions.*
Each question carries 5 *marks.*
All questions can be attended.
Overall Ceiling 25.

13. Explain Organization as Socio Technical Systems.
14. Explain briefly about the prototyping approach to application system development.
15. What are the basic models of Organizational Structure ?
16. Explain the structure of Management Information System based on organizational functions.
17. What are the functions of information system ? Discuss advantages and limitations of information system.
18. Explain in detail DSS system and its role in organization.
19. Explain the installation and operation stages of System Development Life Cycle.

(5 × 5 = 25 marks)

Section C

Answer any **one** *question.*
The question carries 11 *marks.*

20. Describe the implications of organizational structure and management theory of MIS.
21. Explain the different types of organizational system concepts applied to MIS.

(1 × 11 = 11 marks)

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FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS—UG)

Information Technology

BIT 5B 11—COMPUTER GRAPHICS

(2019 Admissions)

Time : Two Hours Maximum : 60 Marks

Section A

Answer at least **eight** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 24.

1. What is aspect ratio ?
2. Define Window.
3. Define Zooming.
4. Define Resolution.
5. What is Pixel ?
6. Define Digitizer.
7. Define Modeling co-ordinates.
8. What is transformation ?
9. Define Clipping window.
10. Define Emissive displays.
11. What is Anti-Aliasing ?
12. Define Bitmap.

(8 × 3 = 24 marks)

Section B

Answer at least **five** *questions.*
Each question carries 5 *marks.*
All questions can be attended.
Overall Ceiling 25.

13. Explain Random Scan Systems.
14. Write a note on DDA.

Turn over

15. Write a note on DVST.
16. Write a short note on CRT.
17. Explain Parallel Projection.
18. Explain Sutherland Hodgeman Polygon Clipping with example.
19. Explain the applications of computer graphics.

(5 × 5 = 25 marks)

Section C

Answer any **one** *question.*
The question carries 11 *marks.*

20. Explain different basic transformation in detail.
21. Explain Painters algorithm in detail.

(1 × 11 = 11 marks)

D 10652 (Pages : 2) Name.....

Reg. No.....

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS—UG)

Information Technology

BIT 5B 10—JAVA PROGRAMMING

(2019 Admissions)

Time : Two Hours Maximum : 60 Marks

Section A

Answer at least **eight** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 24.

1. What is Encapsulation ?
2. What are character stream classes?
3. Name the various Layout managers.
4. What is dynamic method dispatch ?
5. What is AWT ?
6. Which are the different ways of creating a Thread ?
7. List different data types in Java. How many bytes will each data type take ?
8. Explain the constructors of List control in AWT.
9. Explain the use of the keyword *super*.
10. Explain single inheritance with an example.
11. Write a simple applet program to display a string "Hello Java".
12. Which are the situations where the objects of ActionEvent and ItemEvent is generated ?

(8 × 3 = 24 marks)

Section B

Answer at least **five** *questions.*
Each question carries 5 *marks.*
All questions can be attended.
Overall Ceiling 25.

13. Briefly explain the JDBC components.

14. Explain the AWT controls Button and TextField with their constructors.

15. Explain the concept of method overriding.

16. Illustrate with an example how to pass parameters to applets.

17. Explain any *three* Color class constructors in Java.

18. Explain switch case structure in Java with example.

19. Explain the steps for creating a package. Create a user defined package and illustrate how to import it.

(5 × 5 = 25 marks)

Section C

Answer any **one** *question.*
The question carries 11 *marks.*

20. Briefly explain exception handling mechanisms in Java.

21. Explain in detail, the life cycle of a thread.

(1 × 11 = 11 marks)

D 10650 (Pages : 2) Name.....

Reg. No.....

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS—UG)

Information Technology

BIT 5B 08—COMPUTER NETWORKS

(2019 Admissions)

Time : Two Hours Maximum : 60 Marks

Section A

Answer at least **eight** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall Ceiling 24.

1. Define the term computer network.
2. Define Ring topology.
3. Define WWW.
4. Explain Repeaters.
5. What is the purpose of Switching ?
6. Define FTP.
7. What is bust error ?
8. Define the term Hamming distance.
9. What is a server ?
10. What is Datagram ?
11. Define SMTP.
12. Define Wide Area Network.

(8 × 3 = 24 marks)

Section B

Answer at least **five** *questions.*
Each question carries 5 *marks.*
All questions can be attended.
Overall Ceiling 25.

13. Differentiate packet switching and message switching.
14. Explain briefly Vertical Redundancy Check.

15. Explain Cryptography in detail.
16. Explain the Dijkstra Algorithm.
17. Compare IPV4 and IPV6 addresses.
18. Explain remote logging in detail.
19. Explain various switching techniques.

(5 × 5 = 25 marks)

Section C

Answer any **one** *question.*
The question carries 11 *marks.*

20. Write a short note on :
    a) E-mail.
    b) FTP.
21. Explain various ALOHA Protocols.

(1 × 11 = 11 marks)

D 10215 (Pages : 3) Name.....

Reg. No.....

FIFTH SEMESTER B.A./B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Information Technology

BIT 5B 12—MANAGEMENT INFORMATION SYSTEMS

(2017 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. Which one is not a part of System Development Process ?

   (a) Testing. (b) Requirement analysis.

   (c) Total Quality Management. (d) Implementation.

2. Prototyping aims at :

   (a) Program logic.

   (b) End user understanding and approval.

   (c) Planning of data flow organization.

   (d) None of the above.

3. Information systems that monitor the elementary activities and transactions of the organizations are :

   (a) Management-level system. (b) Operational-level system.

   (c) Knowledge-level system. (d) Strategic level system.

4. The basic component(s) of DSS is (are) :

   (a) Database. (b) Model base.

   (c) DSS software system. (d) All of the above.

5. MIS stands for ——————.

6. AI stands for ——————.

Turn over

7. Which of the following is part of the decision-making process ?

   (a) Problem identification. (b) Alternative selection.

   (c) Problem recognition. (d) All of the above.

8. Strategic information is needed for :

   (a) Day to day operations. (b) Long range planning.

   (c) Meet Government requirements. (d) Short range planning.

9. The human body system is an example for ————————.

   (a) Closed. (b) Open.

   (c) Conceptual. (d) Artificial.

10. ———————— decision has no pre-established decision procedure.

   (a) Non-programmed. (b) Structured.

   (c) Programmed. (d) Routine.

(10 × 1 = 10 marks)

Part B

Answer **all** *questions.*

Each question carries 2 *marks.*

11. What is the difference between structured and unstructured information ?

12. What are the types of MIS ?

13. How MIS is useful for marketing department of an organization ?

14. What do you mean by value of information ?

15. Define Quality.

(5 × 2 = 10 marks)

Part C

Answer any **five** *questions.*

Each question carries 4 *marks.*

16. Explain the role of Transaction Processing System with the help of a diagram.

17. What is a system ? Narrate its characteristics.

18. Differentiate between open system and closed system.

19. Write a note on organizational culture.

20. Explain the law of requisite variety.

21. What are the basic Functions of MIS ?

22. Distinguish between Deterministic and Probabilistic systems.

23. Explain the quality of information in decision-making.

(5 × 4 = 20 marks)

Part D

Answer any **five** *questions.*
Each question carries 8 *marks.*

24. Trace the evolution of information systems.

25. Explain the structure of MIS based on organizational functions.

26. Illustrate the Life Cycle Approach to Application System Development.

27. Distinguish between Management Information System and Decision Support System.

28. Discuss the general model of Human as an information processor.

29. What do you understand by quality in information system ? Discuss.

30. Explain in detail software quality assurance.

31. Explain Prototyping Approach to Application System Development.

(5 × 8 = 40 marks)

D 10214 (Pages : 3) Name.....

Reg. No.....

FIFTH SEMESTER B.A./B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Information Technology

BIT 5B 11—COMPUTER GRAPHICS

(2017 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. One of the important areas of computer graphics which deals with manipulating and interpreting the existing images rather than developing and creating them is called ————————.

   (a) Visualization. (b) Image processing.

   (c) Virtual Reality. (d) GIS.

2. The most common types of graphics monitor employing a CRT is the ———————— display.

   (a) Refresh buffer. (b) Raster-scan.

   (c) Random-scan. (d) Bitmap.

3. The ———————— is a scan conversion line algorithm.

   (a) DDA. (b) Parallel line.

   (c) Bresenham. (d) Midpoint line.

4. A ———————— is applied to an object by repositioning it along a straight line path from one co-ordinate location to another.

   (a) Rotation. (b) Translation.

   (c) Scaling. (d) Four.

5. A ———————— is applied to an object by repositioning it along a straight line path from one co-ordinate location to another.

   (a) Translation. (b) Rotation.

   (c) Reflection. (d) Scaling.

Turn over

6. The alteration of size of the object is defined by ————————.

   (a) Reflection factor. (b) Shearing factor.

   (c) Translation factor. (d) Scaling factor.

7. A world co-ordinate area selected for display is called ————————.

   (a) Display device. (b) Window.

   (c) View area. (d) Viewport.

8. String clipping method is a method of ———————— clipping.

   (a) Text. (b) Polygon.

   (c) Point. (d) Line.

9. Real world objects have a third dimension called ————————.

   (a) Length. (b) Depth.

   (c) Area. (d) Width.

10. ———————— algorithm works like a painter creating an oil painting.

   (a) Hidden surface. (b) Scan line.

   (c) Z Buffer. (d) Painter's.

(10 × 1 = 10 marks)

Part B

Answer **all** *questions.*
Each question carries 2 *marks.*

11. Name some graphical software packages.
12. Define output primitives.
13. Differentiate Scaling and Translation.
14. Compare a window with a viewport.
15. What is a Z-buffer method ?

(5 × 2 = 10 marks)

Part C

Answer any **five** *questions.*
Each question carries 4 *marks.*

16. Describe Cathode Ray Tube with a diagram.
17. Write a short note on Text Input devices.
18. Write an algorithm for generating a line using DDA method.

19. What are the basic transformations ? Define each one of them with at least one suitable example.

20. Explain what is clipping ? What is the relationship between clipping and windowing ?

21. What are the different line clipping algorithm ? Write a short note on each.

22. Define wire frame structure. Also show the wire frame structure of a cube.

23. How are the algorithms in hidden surfaces classified ? Explain.

(5 × 4 = 20 marks)

Part D

Answer any **five** *questions.*
Each question carries 8 *marks.*

24. Write a short note on various applications of Computer Graphics.

25. Differentiate Random display and Raster scan display devices with diagram.

26. Write a short note on Co-ordinate representation.

27. Derive clockwise and anticlockwise transformation matrices about the origin.

28. Explain Cohen-Sutherland line clipping algorithm using proper examples.

29. Define the following :

    (a) Co-ordinate transformation. (b) Inverse transformation.

    (c) Affine transformation. (d) Raster transformation.

30. Derive rotation transformation matrix to rotate a 3-dimensional object about an arbitrary axis with angle θ.

31. Explain how Painters algorithm works.

(5 × 8 = 40 marks)

D 10213 (Pages : 3) Name.....

Reg. No.....

FIFTH SEMESTER B.A./B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Information Technology

BIT 5B 10—JAVA PROGRAMMING

(2017 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. Analyze the following program segment and determine how many times the body of the loop will be executed ?

```
m = 1;
do
{
..... ;
..... ;
m+ = 2 ;
}
while (m < 10) ;
```

2. ———— method is used to call constructors of the super class from subclass.
3. ———— are classes that allow primitive types to be accessed as objects.
4. *log()* method is included in ———— class.
5. When a program does not want to handle exception, ———— class is used.
6. ———— is the process of writing the state of an object to a byte stream.
7. Which of the following components generate action event ?

   A) Buttons. B) Checkboxes.

   C) Labels. D) Windows.

8. ———— method is used to output a string to an applet.

9. Say True *or* False : *Switch* statement in Java does not require a *break.*

10. Say True *or* False : By default, all java program imports *Java.lang.package.*

(10 × 1 = 10 marks)

Part B

Answer **all** *questions.*
Each question carries 2 *marks.*

11. Define polymorphism.

12. Explain the differences between interface and class.

13. What is the use of *finally* block ?

14. What is JDBC ? List the different JDBC drivers.

15. Explain the structure of AWT.

(5 × 2 = 10 marks)

Part C

Answer any **five** *questions.*
Each question carries 4 *marks.*

16. List the different data types in Java.

17. Define Packages. Explain its use.

18. Give an account on Wrapper Class Arrays.

19. Explain different types of access specifiers.

20. Explain, how String class differs from *StringBuffer* class.

21. Write a note on Hash tables.

22. Explain the life cycle of Applet.

23. What are the primary design goals of the new model in AWT ?

(5 × 4 = 20 marks)

Part D

Answer any **five** *questions.*
Each question carries 8 *marks.*

24. Explain the basic principles of object orientation.

25. Explain entry-controlled and exit-controlled loop statement in Java with examples.

26. With sample programs, explain method overloading and method over-riding.

27. Explain the different forms of inheritance.

28. Explain *wait()* and *notify()* methods in detail.

29. Explain the different types of *try-catch* exception statements in Java.

30. Write a Java program to create an employee database with details name, employee number, department, place and search for those employees who belongs to place X.

31. What are Java applet's main methods ? Explain how is it different from standalone applications.

(5 × 8 = 40 marks)

D 10212 (Pages : 4) Name.....

Reg. No.....

FIFTH SEMESTER B.A./B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Information Technology

BIT 5B 09—SOFTWARE ENGINEERING

(2017 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. Which of the following is/are software configuration items ?

   a. Software Requirements. b. Design Specification.

   c. Source Code. d. All of the above.

2. For modern user interfaces. LOC is an accurate measure of the size of interface :

   a. True. b. False.

3. Speeding up the development process significantly is one of the pros of :

   a. Prototyping. b. Object model.

   c. Process model. d. Computer-aided System Engineering.

4. Which of the following cannot be applied with the software according to Software Engineering Layers ?

   a. Process. b. Methods.

   c. Manufacturing. d. None of the above.

5. Structured Analysis is based on the principles of :

   a. Top-down decomposition approach.

   b. Divide and conquer principle.

   c. Graphical representation of results using DFDs.

   d. All of the mentioned.

Turn over

6. Choose the incorrect statement in terms of Objects :

   a. Objects are abstractions of real-world.

   b. Objects can't manage themselves.

   c. Objects encapsulate state and representation information.

   d. All of the mentioned.

7. Reuse-based software engineering is a software engineering strategy where the development process is geared to reusing existing software :

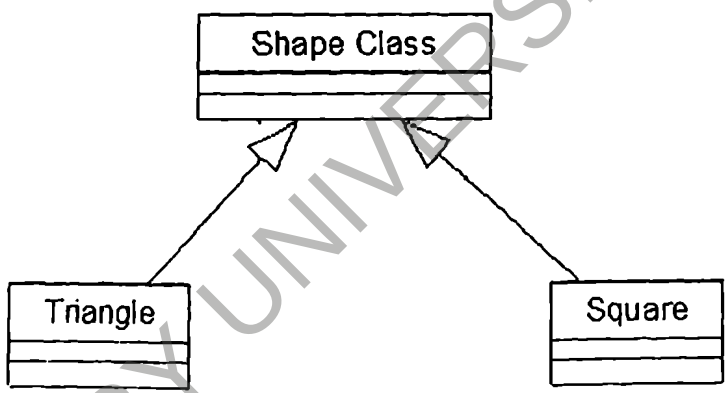
   a. True. b. False.

8. CMM stands for :

   a. Capability Management Module. b. Conservative Maturity Model.

   c. Capability Maturity Module. d. Capability Maturity Model.

9. What type of relationship is represented by Shape class and Square ?



   a. Realization. b. Generalization.

   c. Aggregation. d. Dependency.

10. Risk management is one of the most important jobs for a :

   a. Client. b. Investor.

   c. Production team. d. Project manager.

(10 × 1 = 10 marks)

Part B

Answer **all** *questions.*
Each question carries 2 *marks.*

11. Give example for bad SRS documents.

12. What do you mean by software reverse engineering ?

13. Distinguish between an error and a failure in the context of program testing.

14. Identify the information that should be presented in the test summary report.

15. What are the activities of risk management ?

(5 × 2 = 10 marks)

Part C

Answer any **five** *questions.*
Each question carries 4 *marks.*

16. Distinguish between a Data Flow Diagram (DFD) and a flow chart.

17. List the responsibilities of a software project manager ?

18. What do you understand by encapsulation and abstraction in the context of object orientation?

19. Briefly highlight the difference between code inspection and code walkthrough.

20. List and explain the three categories of project estimation techniques.

21. Explain black-box testing in detail.

22. Explain the different activities undertaken during reverse engineering.

23. Schematically draw the architecture of a CASE environment.

(5 × 4 = 20 marks)

Part D

Answer any **five** *questions.*
Each question carries 8 *marks.*

24. Explain prototyping model with a neat diagram.

25. Define SRS. Briefly explain the characteristics of a good SRS.

26. Define Cohesion and Coupling. Explain various types in each of them.

27. Describe the COCOMO Model in detail with an example for Software Cost Estimation.

28. What is a DFD ? Draw DFDs up to 3rd level for a Reservation System. Make necessary assumptions. Mention the assumptions made.

29. Explain different categories of interfaces in detail.

30. Briefly explain software design approaches.

31. What are the different approaches to integration testing ? Explain in detail.

(5 × 8 = 40 marks)

D 10211 (Pages : 2) Name.....

Reg. No.....

FIFTH SEMESTER B.A./B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Information Technology

BIT 5B 08—COMPUTER NETWORKS

(2017 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. TCP stands for ————————.
2. In ———————— techniques a redundant bit called parity bit is appended to every data unit so that the total number of 0's in the unit including parity bit becomes even.
3. 127.0.0.1 is an IP address belongs to ———————— class.
4. Sending a data packet to all destinationsimultaneously is known as ————————.
5. Bridges is a network device which can be used for connecting multiple ————————.
6. IPv4 address scheme uses ———————— bits.
7. ———————— protocol provides a connection-oriented reliable service for sending messages.
8. SNMP stands for ————————.
9. In cryptography, the order of the letters in a message is rearranged by ———————— ciphers.
10. DHCP means ————————.

(10 × 1 = 10 marks)

Part B

Answer **all** *questions.*
Each question carries 2 *marks.*

11. Distinguish between LAN and MAN.
12. What do you mean by VRC code ?

Turn over

13. Explain the function of Bridges.

14. What is SCTP ?

15. Explain Samba printing.

(5 × 2 = 10 marks)

Part C

Answer any **five** *questions.*
Each question carries 4 *marks.*

16. Explain the differences between packet switching and circuit switching.

17. Write a short note on Bluetooth.

18. What is UDP ? Explain the use of checksum in UDP header.

19. Explain about Distance Vector Routing algorithm.

20. Explain the use of public and private keys in Cryptography.

21. Describe the procedure for configuring Network Interface Card in Linux.

22. Write a note on SMTP.

23. Compare and contrast slotted ALOHA and pure ALOHA.

(5 × 4 = 20 marks)

Part D

Answer any **five** *questions.*
Each question carries 8 *marks.*

24. Explain the architecture of TCP/IP reference model with a diagram.

25. What is CRC? If the generating polynomial for CRC code is $x^4 + x^3 + 1$ the message word is 11110000.Determine the check bits and the encoded word

26. Compare and contrast CSMA/CD and CSMA/CA.

27. Differentiate between IPv4 and IPv6 Addressing schemes.

28. What is DNS ? Explain the structure of DNS system.

29. What is an Email ? Explain the different components of Email.

30. What is an IP address ? Explain the different classes of IP address with examples.

31. Give an account on NFS and NIS.

(5 × 8 = 40 marks)

D 10210 (Pages : 3) Name.....

Reg. No.....

FIFTH SEMESTER B.A./B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Information Technology

BIT 5B 12—MANAGEMENT INFORMATION SYSTEMS

(2014 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. The logistics function encompasses ———— activity.

   A. Purchasing. B. Inventory control.

   C. Distribution. D. All of these.

2. Processing support for operational control consists of ———— processing.

   A. Transaction. B. Report.

   C. Inquiry. D. All of these.

3. Which of the following phases are included in decision making process ?

   A. Intelligence. B. Design.

   C. Choice. D. All of these.

4. What is the name of the model that solve human problems and also makes use of the analogy between computer processing and human information processing ?

5. ———— system can be described in terms of probable behavior, but certain degree of error is always attached to the prediction of what the system will do.

   A. Probabilistic. B. Deterministic.

   C. Closed. D. Open.

6. The information sub system can be divided into ———— major sub-systems.

   A. 2. B. 3.

   C. 4. D. 5.

Turn over

7. ———————— generally refers to the level in the organization where decision making occurs.

   A. Centralization.
   B. Specialization.
   C. Formalization.
   D. Generalization.

8. In ———————— stage of product sales, the activity or sales remain high, but there is no increase.

   A. Introduction.
   B. Growth.
   C. Maturity.
   D. Decline.

9. What is the first step in Prototyping process ?

10. ———————— function is responsible for control of physical access to the installation and control of access through terminals.

   A. Process control.
   B. Access control.
   C. Librarian.
   D. DBMS.

(10 × 1 = 10 marks)

Part B

Answer any **five** *questions.*
Each question carries 2 *marks.*

11. What is DSS ?
12. What is Choice phase in decision making ?
13. What is Open System ? Give an example.
14. Define information with respect to information system.
15. Define the role of internal auditor.

(5 × 2 = 10 marks)

Part C

Answer any **five** *questions.*
Each question carries 4 *marks.*

16. Write a note on MIS as activities subsystem.
17. Briefly explain the development of alternatives in choice phase of decision making.
18. What is the value of information in Motivation ?
19. What is a physical system ? Briefly explain by giving any *four* examples.

20. Explain the importance of feedback in information processing.

21. Write a brief note on the concept of organizational power.

22. Briefly explain autocratic and supportive leadership styles.

23. What is feasibility assessment ? Briefly explain technical and economical feasibility.

(5 × 4 = 20 marks)

Part D

Answer any **five** *questions.*
Each question carries 8 *marks.*

24. Explain the physical components required for an organizational information system.

25. Write a note on human information processing system.

26. Explain the concept of "Decision making under psychological stress.

27. Briefly explain the concept of control and also explain control using negative feedback.

28. What is a Planning ? Explain computational support for planning.

29. Write a brief note on the following dimensions of organizational structure :

    A. Formalization.

    B. Centralization.

30. Write a note on the concept of Auditing of Information Systems and also mention the major roles of Independent Auditors.

31. Explain any *six* major quality control and quality assurance functions that need to be performed in information system operations.

(5 × 8 = 40 marks)

D 10208 (Pages : 3) Name.....

Reg. No.....

FIFTH SEMESTER B.A./B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Information Technology

BIT 5B 10—JAVA PROGRAMMING

(2014 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*

Each question carries 1 *mark.*

1. ———— loop statement will execute the body of loop even when condition controlling the loop is initially false ?

   A. while. B. do... while.

   C. for. D. None of the above.

2. ———— is a type of polymorphism in Java ?

   A. Compile time polymorphism. B. Execution time polymorphism.

   C. Multiple polymorphism. D. Multilevel polymorphism.

3. Which of the following method of String class can be used to test to strings for equality ?

   A. isequal(). B. isequals().

   C. equal(). D. equals().

4. ———— is not a correct statement related to abstract class in Java.

   A. Every class containing abstract method must be declared abstract.

   B. Abstract class defines only the structure of the class not its implementation.

   C. Abstract class can be initiated by new operator.

   D. Abstract class can be inherited.

5. ———— method is used to limit the number of rows returned from a database table.

   A. setMinRows(int i). B. getMaxrows(int i).

   C. getMinRows(int i). D. setMaxRows(int i).

Turn over

6. ———— is a keyword that can be used to prevent Method overriding.

A. Static. B. Final.

C. Protected. D. Constant.

7. ———— package stores all the simple data types in Java.

A. java. B. lang.

C. util. D. java.packages.

8. ———— interface is implemented by Thread class ?

A. MapConnection. B. Set.

C. Runnable. D. Connections.

9. ———— method is a part of Abstract Window Toolkit (AWT) ?

A. DrawString(). B. Paint().

C. Transient(). D. Display().

10. Which of the following is a mechanism for naming and visibility control of a class and its content ?

A. Package. B. Object.

C. Interface. D. None of the above.

(10 × 1 = 10 marks)

Part B

Answer **all** *questions.*
Each question carries 2 *marks.*

11. What is data abstraction ?

12. What do you mean by method overriding ?

13. Explain the use of ***finally*** block ?

14. How do you represent URL in Java ?

15. What is Applet ? Explain how it differ from application.

(5 × 2 = 10 marks)

Part C

Answer any **five** *questions.*
Each question carries 4 *marks.*

16. Explain the primitive data types in Java.
17. Explain the different methods in *java.Util Arrays* class with example.
18. Give an account on Wrapper Classes.
19. What are the different access specifiers in Java ?
20. Differentiate between String class and ***StringBuffer*** class.
21. What are the various types of statements supported by JDBC ? Explain.
22. Explain the life cycle of a Thread.
23. What are the primary design goals of thenew model in AWT ?

(5 × 4 = 20 marks)

Part D

Answer any **five** *questions.*
Each question carries 8 *marks.*

24. Explain the basic principles of object orientation.
25. Explain *for* loop construct in Java with examples.
26. With sample programs, explain method overloading and method overriding.
27. Give an account on filtered I/O streams in Java.
28. Describe the different forms of inheritance with example.
29. Define a Package. Illustrate creating and accessing user-defined packages in java with an example.
30. Write a JDBC program to create an employee database with details such as name, employee number, department, place and search for those employees who belongs to place X.
31. What are Java applet's main methods ? Explain how is it different from standalone applications.

(5 × 8 = 40 marks)

D 10207 (Pages : 4) Name.....

Reg. No.....

FIFTH SEMESTER B.A./B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Information Technology

BIT 5B 09—SOFTWARE ENGINEERING

(2014 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. SDLC stands for :

   A. Software Development Life Cycle.

   B. System Development Life cycle.

   C. Software Design Life Cycle.

   D. System Design Life Cycle.

2. Purpose of process is to deliver software :

   A. In time.

   B. With acceptable quality.

   C. That is cost efficient.

   D. Both in time and with acceptable quality.

3. Which of the following is not included in the Software Requirements Specification (SRS) document ?

   A. Functional requirement.

   B. Non-functional requirement.

   C. Goals of implementation.

   D. Algorithm for software implementation.

4. Which one of the following is not a step of requirement engineering ?

   A. Elicitation.

   B. Design.

   C. Analysis.

   D. Documentation.

5. If the system state is Shutdown then it can respond to which of the following message?

   A. Restart(). B. Reconfigure().

   C. PowerSave(). D. All of the mentioned.

6. Debugging is :

   A. Creating program code.

   B. Finding and correcting errors in the program code.

   C. Identifying the task to be computerized.

   D. Creating the algorithm.

7. User interface ————————.

   A. Helps users to communicate using windows, icons with the computer system and application system.

   B. It converts program to machine language form.

   C. Transmit data to a remote location as packets.

   D. None of these.

8. Structured programming codes includes ————————.

   A. Alteration and Iteration. B. Multiple exists from loops.

   C. Sequencing. D. Only 1 and 3.

9. Software Maintenance includes :

   A. Error corrections.

   B. Enhancements of capabilities.

   C. Deletion of obsolete capabilities.

   D. All of the above.

10. Which is the characteristic of Software risk ?

   A. Uncertainty. B. Loss.

   C. Both A and B. D. None of the above.

(10 × 1 = 10 marks)

Part B

Answer **all** *questions.*
Each question carries 2 *marks.*

11. What are the umbrella activities of a software process ?
12. What are the characteristics of SRS ?
13. List two principles of good design.
14. Distinguish between verification and validation.
15. What are the objectives of Testing ?

(5 × 2 = 10 marks)

Part C

Answer any **five** *questions.*
Each question carries 4 *marks.*

16. What is computer systems engineering ? How is it different from software engineering ?
17. Project Manager plays an important role in software engineering. Justify.
18. What do you understand by encapsulation and abstraction in the context of object orientation ?
19. Write a note on Class diagram.
20. Explain the different activities undertaken during reverse engineering.
21. Explain unit testing in detail.
22. Explain menu based interfaces.
23. How do you estimate maintenance cost ? Explain.

(5 × 4 = 20 marks)

Part D

Answer any **five** *questions.*
Each question carries 8 *marks.*

24. Which are the major phases in the classical waterfall model of software development ? Explain in detail.
25. Explain the characteristics and components of software requirement specification.
26. What are CASE Tools ? With a suitable diagram, explain the categories of CASE Tools.

Turn over

27. Explain Software testing strategy.

28. Data flow diagrams and structure charts play an important role in software design. Justify this statement with examples.

29. What are the different ways of Requirements Gathering ? Explain in detail.

30. Explain User Interface Development process.

31. Explain how object-oriented modelling is used as an effective means of problem analysis.

(5 × 8 = 40 marks)