

**D-6071**

**Sub. Code**

**11A/13711/  
0111/0311A**

**DISTANCE EDUCATION**

**COMMON FOR B.A./B.Sc./B.B.A./B.B.A.(Banking)/  
B.C.A./M.B.A.(5 YEAR INTEGRATED) DEGREE  
EXAMINATION, DECEMBER 2024.**

**First Semester**

**PART I — TAMIL PAPER - I**

**(CBCS 2018 – 2019 Academic Year Onwards/2021 Calendar  
Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

பகுதி அ — (10 × 2 = 20 மதிப்பெண்கள்)

அனைத்து வினாக்களுக்கும் ஒரேரு வரிகளில் விடையளிக்க.

1. கண்ணதாசன் யாரை மானசீகக் குருவாகக் கருதினார்?
2. மக்கள் கவிஞர் எனப் போற்றப்பட்டவர்?
3. பாரதமாதவிற்கு, 'திருப்பள்ளி எழுச்சி' பாடியவர்?
4. நாமக்கல் கவிஞர் எழுதிய புதினங்கள் இரண்டினைச் சுட்டுக.
5. மீரா எக்கல்லூரியில் பேராசிரியராகப் பணியாற்றினார்?
6. 'தோழர் மோசிகீரனார்' என்னும் கவிதையை எழுதியவர்?
7. 'வயிறு' என்னும் கவிதையின் பொருளைத் தருக.
8. சிலப்பதிகாரம் உரைக்கும் முப்பெரும் உண்மைகளை எழுதுக.
9. கம்பராமாயணம் எத்தனைக் காண்டங்களால் ஆனது?
10. சீறாப்புராணம் என்பதன் பொருள் யாது?

பகுதி ஆ — (5 × 5 = 25 மதிப்பெண்கள்)

பின்வரும் வினாக்களுக்கு ஒரு பக்க அளவில் விடை தருக.

11. (அ) மாயக்கண்ணன் துயில் கொள்வதைக் கண்ணதாசன் எங்ஙனம் பாடுகிறார்?

(அல்லது)

- (ஆ) செய்யும் தொழிலே தெய்வமென பட்டுக்கோட்டையார் பாடுமாற்றை விவரிக்க.

12. (அ) பாரதியார் கூறும் இந்தியாவின் பழம்பெருமைகள் குறித்து எழுதுக.

(அல்லது)

- (ஆ) 'நோயற்ற வாழ்வு' என்னும் கவிதையின் கருத்துக்களை எடுத்துரைக்க.

13. (அ) மீராவின் வாழ்க்கை வரலாற்றைச் சுருக்கி வரைக.

(அல்லது)

- (ஆ) குழலோசை கேட்ட ராதையின் நோக்கமாகக் கு.ப.ரா. கூறுமாற்றை எழுதுக.

14. (அ) ஞானக்கூத்தனுக்கு மோசினீரனார் மேல் அன்பு தோன்ற காரணம் யாது?

(அல்லது)

- (ஆ) அப்துல் ரகுமானின் 'கண்ணும் எழுதேம்' கவிதையின் கருத்துக்களை வரைக.

15. (அ) மந்திர ஆலோசனையின் நோக்கத்தைக் கட்டுரைக்க.

(அல்லது)

- (ஆ) சீறாப்புராண நூல் குறிப்புகளைச் சுருக்கி எழுதுக.

பகுதி இ — ( $3 \times 10 = 30$  மதிப்பெண்கள்)

பின்வரும் வினாக்களில் மூன்றனுக்குக் கட்டுரை வடிவில்  
விடை தருக.

16. ராதையின் பெருமிதப் பேச்சுக்களைக் கண்ணதாசன் பாடுமாற்றை விளக்கிடு.
  17. கண்ணனின் குறும்புத் தனங்களைப் பாரதியார் பாடல் வழி விவரிக்க.
  18. உலகப்பன் பாட்டுப் பேசும் பொதுவுடைமைக் கருத்துக்களைச் சுட்டியுரைக்க.
  19. கண்ணகியின் வரவும் வாயிற்காப்போன் உரையும் குறித்துக் கட்டுரைக்க.
  20. இறைவனை ஆயர்கள் வழிப்பட்டமையைத் தேம்பாவணி வழிப் புலப்படுத்துக.
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**D-6072**

**Sub. Code**

**11B/0311B**

**DISTANCE EDUCATION**

**COMMON FOR B.A./B.Sc./B.B.A./B.B.A. (Banking)/  
B.C.A./M.B.A.(5 YEAR INTEGRATED) DEGREE  
EXAMINATION, DECEMBER 2024.**

**First Semester**

**PART I — COMMUNICATION SKILLS - I**

**(CBCS 2018 – 2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. Define visual communication.
2. Give two examples for written communication.
3. Define “communication gap”.
4. I couldn't understand what you said.  
(Replace the underlined word with a phrasal verb)
5. Ram wrote a letter. (Analyse this sentence)
6. Define a paragraph.
7. Define an example for a complex sentence.
8. Give a technical report.
9. Explain the different types of letters.
10. Explain the importance of e-mail.

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Use the following phrasal verbs in sentences.

- (i) make out
- (ii) put up with
- (iii) cut down
- (iv) call for
- (v) suffer from.

Or

- (b) Write a letter of complaint to the corporation commissioner about bad condition of roads in your locality.

12. (a) Mention different ways of expressing an opinion in a group discussion.

Or

- (b) Prepare a report about the independence day celebrations held in your college.

13. (a) Discuss non-verbal communication with examples.

Or

- (b) Explain 'Curriculum vitae'.

14. (a) Write a paragraph on "Importance of sports in education".

Or

- (b) Discuss Barriers to communication.

15. (a) What is the function of intonation?

Or

(b) How will you prepare yourself to deliver a speech?

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Describe various types of communication with examples.
  17. Discuss the technique of writing an effective e-mail.
  18. Write an essay on “Reading makes a full man”.
  19. Prepare a report on a festival held in your city.
  20. Describe the principles of effective oral communication.
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**D-6073**

**Sub. Code**

**12/13712/  
0112/0312**

DISTANCE EDUCATION

COMMON FOR B.A./B.Sc./B.B.A./B.B.A.(Banking)/  
B.C.A./M.B.A.(5 YEAR INTEGRATED) DEGREE  
EXAMINATION, DECEMBER 2024.

First Semester

PART II — ENGLISH PAPER - I

(CBCS 2018 – 2019 Academic Year Onwards/2021 Calendar  
Year Onwards)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Write the significance of water in agriculture as discussed by C.V. Raman in *Water – the Elixir of life*.
2. What is Mrs. Packletide's reason for wanting to hunt a tiger in *Mrs. Packletide's Tiger*?
3. Mention Carl Sagan's view on the connection between modern humans and our ancestors.
4. What is the central theme of B.R. Nanda's essay *A Hero on Probation*.

5. Fill in the blanks with suitable articles :
- (a) I spoke to ————— (a/the) manager of the store.
  - (b) I have ————— (a/the) idea than will help solve this problem.
6. Fill in the blanks with correct form of Gerund :
- (a) She finished ————— (to clean/cleaning) the house before noon.
  - (b) ————— (Run/Running) every morning helps him stay fit.
7. What does C.E. Foad criticize about modern technology in *Our Civilization*?
8. Briefly explain the connection between food and evolution as discussed by J.B.S. Haldane in *Food*.
9. What is the setting of Jim Corbett's tiger hunting encounter in *A Deed of Bravery*.
10. What social issues does Shaw critique in *Pygmalion*?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Describe the significance of water conservation as presented by C.V. Raman in *Water – the Elixir of Life*.

Or

- (b) Explore how Saki uses satire to critique social class and vanity in *Mrs. Packletide's Tiger*.



12. (a) Explain J.B.S. Haldane's perspective on the relationship between food production and human progress in *Food*.

Or

- (b) Describe how Carl Sagan integrates scientific curiosity with historical analysis in *Our Ancestors*.

13. (a) Fill in the blanks with suitable articles :

- (i) I saw \_\_\_\_\_ (a/the) cat sitting on \_\_\_\_\_ (a/the) roof.
- (ii) She is \_\_\_\_\_ (a/an) excellent dancer.
- (iii) \_\_\_\_\_ (A/An/The) Earth revolves around \_\_\_\_\_ (a/the) Sun.
- (iv) He wants to buy \_\_\_\_\_ (a/the) car that he saw yesterday.
- (v) They live in \_\_\_\_\_ (a/the) small house near (a/the) river.

Or

- (b) Change direct speech into indirect speech.

- (i) He said, "I am going to the market".
- (ii) She said, "I will call you later".
- (iii) They said, "We have completed our homework".
- (iv) John Said, "I am planning a trip to London".
- (v) The teacher said, "You must submit".

14. (a) Precise the following paragraph :

In a remote village named Niranjan, life had remained unchanged for decades. The villagers lived simply, relying on traditional farming methods. Over time, however, challenges arose. The once-fertile land became barren due to climate change, and the river supplying water dried up. Many young villagers left for the city, leaving the village struggling.

Rohan, a young man who had studied in the city, returned to Niranjan with the hope of improving conditions. He proposed modernizing their farming techniques by introducing irrigation, planting drought-resistant crops, and building a road to connect the village with nearby towns. At first, the elders resisted, reluctant to change their age-old ways. But Rohan persisted, and gradually, the village transformed. The new methods revived the land, and the road allowed for trade with neighboring towns.

As the village prospered, those who had left returned. Niranjan, once isolated and struggling, became a thriving community while maintaining its traditions. Rohan's efforts not only saved the village but also made it a model for other villages in the region.

Or

- (b) Write a paragraph on the importance of recycling in modern society.

15. (a) Analyse the depiction of bravery in Jim Corbett's *A Deed of bravery* and its impact on the narrative.

Or

- (b) What are the primary concerns raised by C.E. Foad regarding technological advancements in *Our Civilization*?

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the use of anthropomorphism in Catharine M. Willson's *The Cat*.
17. Analyse the concept of probation and its effects on the protagonist in B.R. Nanda's *A Hero on probation*.
18. Fill in the correct form of Gerund :
- (a) She enjoys ————— (to cook/cooking) in her free time.
- (b) ————— (Swim/Swimming) is good exercise.
- (c) He suggested ————— (to go/going) to the park.
- (d) I can't stand ————— (to wait/waiting) for long periods.
- (e) They talked about ————— (to visit/visiting) Japan.
- (f) She is interested in ————— (to learn/learning) French. ————— (Drive/Driving) too fast is dangerous.

- (g) He's good at \_\_\_\_\_ (to play/playing) chess.
- (h) I don't mind \_\_\_\_\_ (to help/helping) you with your homework.
- (i) She avoided \_\_\_\_\_ (to speak/speaking) about the problem.
19. Write a letter to the editor of a newspaper expressing your concern about increasing traffic congestion in your city.
20. How does Hardin B. Fones address the prevention and treatment of drug abuse in *Dangers of Drug Abuse*?
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<b>D-6180</b>
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<b>Sub. Code</b>
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<b>12913</b>
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**DISTANCE EDUCATION**

**B.Sc.(Information Technology) DEGREE EXAMINATION,  
DECEMBER 2024.**

**First Semester**

**PRINCIPLES OF INFORMATION TECHNOLOGY**

**(CBCS 2018 – 2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — ( $10 \times 2 = 20$  marks)**

**Answer ALL the questions.**

1. What are De Morgan's theorems in Boolean algebra?
2. How is Boolean algebra expression simplified using Karnaugh maps?
3. Give two examples of application software.
4. What is the role of database software?
5. Define object-oriented programming.
6. Name two internet programming languages.
7. What are desktop accessories and personal information managers?
8. How is video conferencing used for communication?
9. What are modems used for?
10. Name two factors affecting data transmission in local networks.

SECTION B — ( $5 \times 5 = 25$  marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) What are the ethical considerations associated with information technology? Provide examples.

Or

- (b) Compare analog and digital signals in the context of computer communications.

12. (a) How can Karnaugh maps be used to simplify Boolean expressions?

Or

- (b) Explain the concept of complements in binary arithmetic and their use in computer system.

13. (a) Explain the significance of internet programming languages such as HTML, XML and Java.

Or

- (b) Describe the features and functions of personal information managers and integrated software suites.

14. (a) Compare local networks with wide area networks (WANs) in terms of their data transmission capabilities.

Or

- (b) Discuss the ethical issues surrounding netiquette, controversial material, censorship, and privacy in computer communications.

15. (a) Discuss the features and functions of file management systems and database management systems (DBMS).

Or

- (b) Describe the criteria for rating secondary storage devices and their implications for data storage.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Discuss the advancements in computer technology and their societal impact.
17. Compare and contrast binary, octal, decimal, and hexadecimal number systems.
18. Compare application software, database software, and programming languages.
19. Analyze the practical uses of communications and connectivity technologies.
20. Explain the fundamentals of storage and compare different types of secondary storage devices.
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**D-6074**

**Sub. Code**

**21A/0321A**

**DISTANCE EDUCATION**

**COMMON FOR B.A./B.Sc./B.B.A./B.B.A.(Banking)/  
B.C.A./M.B.A.(5 YEAR INTEGRATED) DEGREE  
EXAMINATION, DECEMBER 2024.**

**Second Semester**

**PART I — TAMIL PAPER - II**

**(CBCS 2018 – 2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

பகுதி அ — (10 × 2 = 20 மதிப்பெண்கள்)

அனைத்து வினாக்களுக்கும் ஒரேரு வரிகளில் விடையளிக்க.

1. 'தேம்பா அணியான் வாடா அருள் மகன்' யார்?
2. 'வான வீதியில்' தொகுதியிலுள்ள சிறுகதைகளின் எண்ணிக்கை?
3. தும்பைப் போர் - குறிப்பு வரைக.
4. வினா எத்தனை வகைப்படும்?
5. அல்வழிப்புணர்ச்சி என்றால் என்ன?
6. சிறுகதை முன்னோடிகள் இருவரைக் குறிப்பிடுக.
7. சிறுவர் இதழ்களுக்குச் சான்றுகள் தருக.
8. சிம்பொனி இசையமைத்த தமிழர் யார்?
9. 'நாமார்க்கும் குடியல்லோம்' எனப் பாடி அரசன் ஆணையை மறுத்தவர்?
10. பெரியபுராணம் நூல் குறிப்பு வரைக.



பகுதி ஆ — ( $5 \times 5 = 25$  மதிப்பெண்கள்)

பின்வரும் வினாக்களுக்கு ஒரு பக்க அளவில் விடை தருக.

11. (அ) குழந்தை ஏசுவை ஆயர்கள் போற்றுமாற்றை விவரிக்க.

(அல்லது)

(ஆ) சாந்தி கேட்ட வேத உரையைப் புலப்படுத்துக.

12. (அ) 'விமோசனம்' கதை உரைக்குப் பெண்ணியக் கருத்துக்களை எழுதுக.

(அல்லது)

(ஆ) தாடகையின் ஆற்றலையும் தறுகண்மையும் எடுத்துரைக்க.

13. (அ) ஆகுபெயரின் வகைகளைச் சான்றுகளுடன் விளக்குக.

(அல்லது)

(ஆ) ஒற்றெழுத்து மிகுமிடங்கள் குறித்து விவரிக்க.

14. (அ) பாரதியின் நாட்டுப்பற்றை எடுத்துரைக்க.

(அல்லது)

(ஆ) தமிழ் நாவல் வரலாற்றைச் சுருக்கி வரைக.

15. (அ) ஆண்டாளின் பக்தித்திறத்தைப் புலப்படுத்துக.

(அல்லது)

(ஆ) தமிழ் வளர்ச்சியில் இதழ்களின் பங்கு பற்றி எழுதுக.

பகுதி இ — ( $3 \times 10 = 30$  மதிப்பெண்கள்)

பின்வரும் வினாக்களில் மூன்றனுக்குக் கட்டுரை வடிவில்  
விடை தருக.

16. சாந்தி உள்ளம் மகிழ்ந்து குழந்தை ஏசுவைப் போற்றுமாற்றை விவரிக்க.
17. கருணை மனு சிறுதையின் பொருண்மையைப் புலப்படுத்துக.
18. போர்க்களத்தில் செய்தித் தொடர்பின் முக்கியத்துவத்தைச் சுட்டியுரைக்க.
19. மொழிமுதல் எழுத்துக்களைச் சான்றுகளுடன் கட்டுரைக்க.
20. இணையத்தில் தமிழ்ப் பெற்றிருக்கும் வளர்ச்சியை எடுத்துரைக்க.

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**D-6075**

**Sub. Code**

**21B/0321B**

**DISTANCE EDUCATION**

**COMMON FOR B.A./B.Sc./B.B.A./B.B.A.(Banking)/  
B.C.A./M.B.A.(5 Year Integrated) DEGREE EXAMINATION,  
DECEMBER 2024.**

**Second Semester**

**PART - I — COMMUNICATION SKILLS - II**

**(CBCS 2018 – 2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. What do good communication skills involve?
2. List the skills required in oral communication.
3. What is demeanour?
4. How are vowels classified?
5. What is a thesaurus?
6. What is passive learning?
7. What is tone?
8. What is a proposal?

9. Who publishes newsletters?
10. What responsibility does the chairperson of the interviews?

SECTION B — ( $5 \times 5 = 25$  marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Explain non-verbal communication.

Or

- (b) List the skills required in written communication.

12. (a) Write a short note on word power.

Or

- (b) Write about the delivery methods of presentation.

13. (a) Write a short note on consonant clusters.

Or

- (b) Describe the language skills.

14. (a) Write a note on active listening.

Or

- (b) What are the characteristics of technical writing?

15. (a) State the indicators of a badly written letters.

Or

- (b) Write a short note on new letters.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Explain the various elements of communication skills.
  17. Explain the chief places of articulation of consonants.
  18. Examine the process of listening.
  19. Write a letter requesting for opening of bank account.
  20. Write about the essentials of a good resume.
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**D-6076**

**Sub. Code**

**22/13722/**

**0122/0322**

DISTANCE EDUCATION

COMMON FOR B.A./B.Sc./B.B.A./B.B.A.(Banking)/  
B.C.A./M.B.A.(5 Year Integrated) DEGREE EXAMINATION,  
DECEMBER 2024.

Second Semester

PART - II — ENGLISH PAPER - II

(CBCS 2018 – 2019 Academic Year Onwards/2021 Calendar  
Year Onwards)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Who is the author of the prescribed poem 'The Coromandel fishers'?
2. What is symbolized by the Westminster Bridge?
3. How does Tagore treat the concept of death in his *Gitanjali*?
4. What does the Second Part of *Gitanjali* sing about?
5. What is the conclusion of 'The Road Not Taken'?
6. Why does the speaker in 'Ode on a Grecian Urn' deem the Urn a Historian?
7. What reason does Antonio give for being sad in the opening of the play *The Merchant of Venice*?

8. Why does the Prince of Morocco fear that Portia will dislike him?
9. What is comprehension?
10. Write any five words that should be avoided in report writing.

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Who is the author of the prescribed poem *The Coromandel fishers*?

Or

- (b) Analyse Shakespeare as a sonneteer.
12. (a) Examine the view that the songs of *Gitanjali* have a deep connection with nature.

Or

- (b) How does Wordsworth describe the beauty of London when viewed from Westminster Bridge?
13. (a) “The Road Not Taken” is about the journey of life. Elucidate.

Or

- (b) Write a short summary of the poem, ‘The coromandel fishers’.
14. (a) Discuss the relationship between Shylock and Jessica.

Or

- (b) Explain the court room scene in *The Merchant of Venice*. How does it illuminate the play’s major themes?

15. (a) Write a report on the free medical camp held in a village by your N.S.S. unit.

Or

- (b) Read the following passage and answer the questions that follows.

Sir. Winston Churchill was saved from drowning by a gardener when he was a small boy. The grateful parents of Churchill offered to educate the son of the gardener. When Sir. Winston became the prime minister, he was stricken by pneumonia. Greatly concerned, the king summoned the best physician and soon Churchill became well. The doctor was Sir. Alexander Fleming who developed penicillin. He was also the son of that gardener who saved Churchill from drowning. Sir Winston said, rarely has one man owed his life twice to the same person.

- (i) What happened to Churchill when he was a small boy?
- (ii) How did Churchill's parents show their gratitude?
- (iii) Who was summoned by the king?
- (iv) How did doctor save Churchill's life?
- (v) Why did Churchill say that he owed his life twice to the same person?

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

- 16. Critically appreciate the poem, 'The Grecian Urn' by John Keats.
- 17. Examine 'Andrea del Sarto' as a Dramatic monologue.
- 18. Analyse Portia's character in *The Merchant of Venice*.



19. Write an essay on the given topic.  
'Pleasures of Reading'.
20. Read the following passage and answer the questions that follow.

In the middle of it all, Tom Sawyer walked slowly out to footpath in front of Aunt Polly's. In his hands were a bucket of paint and a big brush. He looked at the tall fence and sadness filled his heart. It must be closed to half a mile long, he was thinking. Life was empty and living was pain. He put his brush in the paint and moved it across the top of fence. He did this again and then looked at how little was painted and how much more needed to be painted before he could be free. He rested on a box, feeling discouraged.

Jim came out of the house with a water bucket. In the past Tom never liked to go to the well for water. But now it looked like a better job than painting the fence. Children were always at the wall waiting for water. As they waited, they played, had fights, rested and talked. Jim always stayed for more than an hour.

- (a) What was Tom asked to do?
- (b) Why did he think life was empty?
- (c) What looked like a better job than painting? Why?
- (d) What did Tom ask him for? What was the reply?
- (e) Who had ordered Tom to paint?

<b>D-6181</b>
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<b>Sub. Code</b>
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<b>12923</b>
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**DISTANCE EDUCATION**

**B.Sc.(Information Technology) DEGREE EXAMINATION,  
DECEMBER 2024.**

**Second Semester**

**PROGRAMMING IN C AND DATA STRUCTURES**

**(CBCS 2018 – 2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. What do you mean by identifiers?
2. Give the syntax of goto statement in C.
3. What are called static variables?
4. Give any two features of pointers.
5. What are called self-referential structures?
6. Write down the command to open a data file in read mode.
7. Mention the stack operations.
8. What is the difference between singly linked list and doubly linked list?
9. Define binary tree.
10. What do you mean by Hashing technique?

SECTION B — ( $5 \times 5 = 25$  marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) List and explain the rules for defining variables in C.

Or

- (b) Explain switch statement with syntax and suitable example.

12. (a) Write about C preprocessor.

Or

- (b) List and explain any five string handling functions in C.

13. (a) Explain the syntax for defining a structure and accessing it.

Or

- (b) Write about unformatted data file.

14. (a) Illustrate polish notation with suitable example.

Or

- (b) Describe the representation of queues.

15. (a) Explain the various types of binary trees with neat sketch.

Or

- (b) Explain the insertion operation in binary search tree.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Describe the looping statements in C with syntax and example.
  17. Write a C program to sort n numbers in ascending order.
  18. How will you pass structures to functions? Illustrate with pseudocode.
  19. Explain the procedure for insert and delete operation in a linked list.
  20. Explain the various binary tree traversal techniques.
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**D-6077**

**Sub. Code**

**31A/13731/  
0131**

**DISTANCE EDUCATION**

**COMMON FOR B.A./B.Sc./B.C.A. DEGREE EXAMINATION,  
DECEMBER 2024.**

**Third Semester**

**Part I — TAMIL PAPER - III**

**(CBCS 2018 – 2019 Academic Year Onwards/2021 Calendar  
Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

பகுதி அ — (10 × 2 = 20 மதிப்பெண்கள்)

அனைத்து வினாக்களுக்கும் ஒரேரு வரிகளில் விடையளிக்க.

1. ஐங்குறுநூறு - நூல் குறிப்பு வரைக.
2. ஆற்றுப்படை நூல்களைப் பட்டியலிடுக.
3. வரைவு கடாதல் என்றால் என்ன?
4. மஞ்ஞைப்பத்து - விளக்கம் தருக.
5. அகநானூற்று நூலின் எண் பகுப்புகளுக்கான திணைகளைக் குறிப்பிடுக.
6. புறநானூற்றுப் பாடல்களின் அடி வரையறை யாது?
7. 'வாயுறை வாழ்த்து' எனப் போற்றப்படும் அற நூல் யாது?
8. நான்மணிக்கடிகை எந்நூல் கருத்துக்களை ஒத்திருக்கின்றது?
9. குந்தவையின் காதலன் பெயரைக் குறிப்பிடுக.
10. 'சுவடுகள்' நாவலின் கதைமாந்தர்களில் இருவரைக் கூறுக.

பகுதி ஆ — (5 × 5 = 25 மதிப்பெண்கள்)

பின்வரும் வினாக்களுக்கு ஒரு பக்க அளவில் விடை தருக.

11. (அ) பாசறை அமைப்புக் குறித்து முல்லைப்பாட்டு விவரிக்குமாற்றை எழுதுக.

(அல்லது)

(ஆ) 'குறிஞ்சிக்குக் கபிலர்' என்பார் கருத்தைப் புலப்படுத்துக.

12. (அ) நற்றிணையிலுள்ள மணிமணியான கருத்துக்களைத் தொகுத்துரைக்க.

(அல்லது)

(ஆ) வரைவு நீட்டித்த வழித் தலைமகள் தோழிக்குச் சொல்லியது யாது? விவரிக்க.

13. (அ) நப்பசலையார் பாடிய ஆனந்தப்பையுள் துறையமைந்த பாடலை விளக்குக.

(அல்லது)

(ஆ) அகநானூற்று நூல் அமைப்பின் சிறப்புகளை எடுத்துரைக்க.

14. (அ) வாழ்க்கைத் துணைநலம் குறித்த வள்ளுவரின் கருத்துக்களைப் புலப்படுத்துக.

(அல்லது)

(ஆ) யார் யாருக்குத் தூக்கம் வராது? நான்மணிக்கடிகை கூறுமாற்றை எழுதுக.

15. (அ) இராசராசசோழன் நாடகத்தின் கதைமாந்தர்களைப் பட்டியலிடுக.

(அல்லது)

(ஆ) 'சுவடுகள்' நாவலில் வரும் ரகுபதி பாத்திர இயல்பை விவரிக்க.

பகுதி இ — ( $3 \times 10 = 30$  மதிப்பெண்கள்)

பின்வரும் வினாக்களில் மூன்றனுக்குக் கட்டுரை வடிவில்  
விடை தருக.

16. பரணர் பாடல்கள் வழி அறியலாகும் சங்க வரலாற்றைத் தொகுத்துரைக்க.
17. மஞ்ஞைப்பத்தில் இடம்பெற்றுள்ள அகக்கருத்துக்களைச் சுட்டியுரைக்க.
18. நப்பசலை சோழன் கிள்ளிவளவனைப் புகழுமாற்றை விவரிக்க.
19. வள்ளுவர் உரைக்கும் 'அறிவுடைமை' கருத்துக்களைத் தொகுத்துரைக்க.
20. இராசராசர்சோழன் நாடகத்தின் கதைக்கோப்பைக் கட்டுரைக்க.

**D-6078**

**Sub. Code**

**31B**

**DISTANCE EDUCATION**

**COMMON FOR B.A./B.Sc./B.C.A. DEGREE EXAMINATION,  
DECEMBER 2024.**

**Third Semester**

**PART - I — HUMAN SKILL DEVELOPMENT - I**

**(CBCS 2018 – 2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. Define 'Self Esteem'.
2. Define psychoanalysis.
3. Give an example for 'forced commitment'.
4. Who is an extrovert?
5. Is dress code important to develop our personality?
6. Define "Time management".
7. What is mental pollution?
8. Define attitudes.
9. What is materialistic life?
10. How honesty is important in building relationship?



SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Discuss various methods to find the background reasons behind conflict.

Or

- (b) What are the general factors behind stress?

12. (a) Explain "Look Before You Leap" concept in Anger management.

Or

- (b) How to overcome inner conflict in personal life?

13. (a) Briefly explain the types of negotiations.

Or

- (b) Write short notes on interpersonal relationship.

14. (a) Mention the basic qualities of a leader.

Or

- (b) Why is the contribution skill more important than knowledge?

15. (a) Discuss business negotiation skill.

Or

- (b) Explain the power of advanced thinking.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Assess the mind levels and its functions.
17. Enumerate the major influential factors in developing personality.

18. Describe how will you over come stress.
  19. Describe leadership styles.
  20. Describe 'coping with the change' concept.
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<b>D-6079</b>
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<b>Sub. Code</b>
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<b>32/13732/0132</b>
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**DISTANCE EDUCATION**

**COMMON FOR B.A./B.Sc./B.C.A. DEGREE EXAMINATION,  
DECEMBER 2024.**

**Third Semester**

**PART - II — ENGLISH PAPER - III**

**(CBCS 2018 – 2019 Academic Year Onwards/2021 Calendar  
Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL questions.**

1. What are Mathilde's expectations to attend the party?
2. What does the author talk about 'false hopes' in "The Post Master"?
3. Why does Philip want to sell his revolver?
4. Why did the old man give the silver idol to Jack?
5. How has Gaultier been outwitted by Pierre?
6. Who is the only character left alive in the play "A kind of Justice"? Why?
7. Define abstract noun with example.
8. Why is Agenda important?
9. What are Minutes?
10. Identify the adverb in the following sentence.  
We should always speak the truth.

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) How does Swami get rid of his fear?

Or

- (b) Discuss the role of fate in the verger's life.

12. (a) Describe the attitude of Natalya towards Lomov.

Or

- (b) Comment on Mrs. Meldon's opinion about war.

13. (a) Comment on the theme of the play "Reunion".

Or

- (b) Describe the incident that leads to Yassin's transformation.

14. (a) Compare and contrast the characters of Jean and Pierre.

Or

- (b) In what way does the lieutenant try to help the girl?

15. (a) As a sports secretary of your college, draft a notice asking the students to give their names for participation in various events to be held on the Annual Sports Day.

Or

- (b) Describe your favourite hobby.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Trace the elements of humour in R.K. Narayan's "A Hero".
  17. Consider "The proposal" as a comedy.
  18. How do you prove that personal ambition leads to selfishness?
  19. How does the play "A kind of justice" gain a universal appeal?
  20. Do as directed
    - (a) Riya looks happier than Diya. (into positive)
    - (b) Shiva is one of the most intelligent students in the class. (into comparative)
    - (c) Gold is more precious than any other metal. (into superlative)
    - (d) No other poet is as great as Wordsworth. (into comparative)
    - (e) John is not so smart as James. (into comparative)
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<b>D-6182</b>
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<b>Sub. Code</b>
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<b>12933/13133</b>
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**DISTANCE EDUCATION**

**B.Sc.(Information Technology)/B.Sc.(IT)(Lateral Entry)  
DEGREE EXAMINATION, DECEMBER 2024.**

**Third Semester**

**INTERNET AND JAVA PROGRAMMING**

**(CBCS 2018 – 2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. Name the components of the World Wide Web.
2. What are internet search engines used for?
3. What are the decision-making and branching constructs in Java?
4. Discuss the concept of looping in Java.
5. What are constructors and their role in class initialization?
6. Discuss the concept of method overloading.
7. Discuss the types of errors and exceptions in Java.
8. How are exceptions-handled in Java programs?
9. Discuss the creation and manipulation of files in Java.
10. What are random access files and their usage?

SECTION B — ( $5 \times 5 = 25$  marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Describe the features and functions of web browsers.

Or

- (b) Discuss the concept of online chatting and its advantages.

12. (a) Compare Java with C and C++ programming languages.

Or

- (b) Discuss the key features of the Java programming language.

13. (a) Explain the usage of arrays, strings, vectors and wrapper classes in Java.

Or

- (b) What are interfaces in Java, and how do they support multiple inheritance?

14. (a) Discuss the concept of exception handling in Java.

Or

- (b) Explain the role of graphics programming in Java and its usage in applets.

15. (a) Explain the concept of interactive input and output in Java.

Or

- (b) How can you pass parameters to java applets and how do applets interact with HTML web pages?

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Explain the concept of the world wide web and its components in detail.
  17. Describe the key features and benefits of object oriented programming (OOP).
  18. Discuss the concepts of classes in Java, including their structure, fields, methods, and constructors.
  19. Explore multithreaded programming in Java, covering topics such as thread creation, synchronization and the thread life cycle.
  20. Explain the concept of streams in Java and discuss the different stream classes, including byte streams and character streams.
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**D-6080**

**Sub. Code**

**41A/13741**

**DISTANCE EDUCATION**

**COMMON FOR B.A./B.Sc./B.C.A. DEGREE EXAMINATION,  
DECEMBER 2024.**

**Fourth Semester**

**Part I — TAMIL PAPER - IV**

**(CBCS 2018 – 2019 Academic Year Onwards/2021 Calendar  
Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

பகுதி அ — (10 × 2 = 20 மதிப்பெண்கள்)

அனைத்து வினாக்களுக்கும் ஒரேரு வரிகளில் விடை தருக.

1. செய்யுள் உறுப்புகள் எத்தனை? அவை யாவை?
2. கீர்த்தனை என்றால் என்ன?
3. குறியீடு என்றால் என்ன?
4. எட்டுத் தொகையில் புற நூல்கள் எத்தனை? அவை யாவை?
5. வரைவு என்றால் என்ன?
6. காஞ்சி என்றால் என்ன?
7. அணிகளுக்கு எல்லாம் தாயாக விளங்கும் அணி எது?
8. பின்வருநிலை என்றால் என்ன?
9. சீவக சிந்தாமணியின் ஆசிரியர் பெயர் யாது?
10. பதினெண்கீழ்கணக்கில் அக நூல்கள் எத்தனை? ஏதேனும் இரண்டினை கூறுக.

பகுதி ஆ — ( $5 \times 5 = 25$  மதிப்பெண்கள்)

அனைத்து வினாக்களுக்கும் ஒரு பக்க அளவில் விடை தருக.

11. (அ) ஆசிரியப்பா குறித்து எழுதுக?  
(அல்லது)  
(ஆ) படிமம் - விளக்குக.
12. (அ) கையறுநிலை - விளக்குக.  
(அல்லது)  
(ஆ) உடன் போக்கு - விளக்குக.
13. (அ) தற்குறிப்பேற்ற அணியைச் சான்றுடன் விளக்குக.  
(அல்லது)  
(ஆ) பிறிது மொழிதல் அணியைச் சான்றுடன் விளக்குக.
14. (அ) பாஞ்சாலி சபதத்தில் இடம் பெறும் சபதங்கள் குறித்து எழுதுக.  
(அல்லது)  
(ஆ) இயேசுவின் பன்னிரு சீடர்கள் குறித்து எழுதுக.
15. (அ) புதிய யாப்பு வடிவங்கள் குறித்து எழுதுக.  
(அல்லது)  
(ஆ) கலிப்பா குறித்து விளக்குக.

பகுதி இ — ( $3 \times 10 = 30$  மதிப்பெண்கள்)

பின்வரும் வினாக்களுக்கு மூன்றனுக்குக் கட்டுரை வடிவில் விடை தருக.

16. பாவகைகளுள் ஆசிரியப்பா பெறுமிடம் குறித்து கட்டுரைக்க.
17. தொடை குறித்து கட்டுரைக்க.

18. உருவக அணியின் வகைகளைச் சான்றுடன் விவரி.
19. அறத்தொடு நின்றல் - விவரி.
20. மௌன மயங்கங்களில் சிற்பி கூறும் கருத்துக்களை விவரி.
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<b>D-6081</b>
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<b>Sub. Code</b>
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<b>41B</b>
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**DISTANCE EDUCATION**

**COMMON FOR B.A./B.Sc./B.C.A. DEGREE EXAMINATION,  
DECEMBER 2024.**

**Fourth Semester**

**Part I — HUMAN SKILLS DEVELOPMENT - II**

**(CBCS 2018 – 2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. Why is counseling important?
2. Name the types of managerial skills.
3. Write the difference between technical skill and human skill.
4. What is presentation?
5. How do you define organization skills?
6. What makes a good leader?
7. State the importance of understanding skills.
8. Why is it important to understand individuals in an organization?
9. How do you handle a problem at workplace?
10. What is social responsibility?

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Explain the purpose of guidance and counselling.

Or

- (b) How can communication strengthen the human relationship?

12. (a) Write notes on conceptual skills.

Or

- (b) What do you do to improve your technical skills?

13. (a) How do you grab the attention of the audience in a presentation?

Or

- (b) What are the essential multi-tasking skills?

14. (a) Identify the major interactions between community and society?

Or

- (b) Explain the role of an individual in an organization.

15. (a) How do you handle a social problem?

Or

- (b) Examine the importance of cooperative learning skills.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Explain the importance and techniques of counselling.
  17. How do you plan and prepare for a presentation?
  18. Describe the different types of organization skills.
  19. Elaborate on understanding skills.
  20. List out the merits and demerits of social responsibilities.
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**D-6082**

**Sub. Code**

**42/13742**

**DISTANCE EDUCATION**

**COMMON FOR B.A./B.Sc./B.C.A. DEGREE EXAMINATION,  
DECEMBER 2024.**

**Fourth Semester**

**Part II — ENGLISH – PAPER IV**

**(CBCS 2018 – 2019 Academic Year Onwards/2021 Calendar  
Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL questions.**

1. Write about the character of Lalajee in Jim Corbett's story *Lalajee*.
2. What is the central theme of Hemingway's *A Day's Wait*?
3. Mention Eliza Doolittle's transformation in *Pygmalion* by G.B. Shaw.
4. How does R.K. Narayan portray childhood in *Swami and Friends*?
5. What is the theme of redemption in *The Winter's Tale*?
6. Write the significance of fate in *Romeo and Juliet*.
7. What were Nehru's contributions to India's independence, according to A.J. Toynbee?

8. What does grammar skills contribute to effective communication in academic writing?
9. What lesson do the two old men learn in Tolstoy's *Two Old Men*?
10. What social issues does Shaw critique in *Pygmalion*?

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Describe how Jim Corbett portrays the socio-economic background of Lalajee in *Lalajee*.

Or

- (b) Explore the significance of the relationship between father and son in Hemingway's *A Day's wait*.

12. (a) Describe the significance of class distinctions in G.B. Shaw's *Pygmalion*.

Or

- (b) Explore the theme of colonialism and identity in R.K. Narayan's *Swami and Friends*.

13. (a) Describe the concept of mercy versus justice in *The Merchant of Venice*.

Or

- (b) Explore the role of free will in Shakespeare's *Romeo and Juliet*.

14. (a) Analyze Jawaharlal Nehru's vision for modern India as portrayed by A.J. Toynbee.

Or

- (b) Delineate Martin Luther King Jr.'s vision for racial equality as described by R.N. Roy.



15. (a) What does Tolstoy suggest about human resilience and faith in *Two Old Men*?

Or

- (b) Analyse the role of education and its transformative power in *Swami and Friends*.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Examine the moral lesson conveyed in Tolstoy's *Little Girls Wiser Than Men*.
17. What does Shaw suggest about gender roles through the characters of Eliza and Higgins in *Pygmalion*?
18. Analyze the roles of secondary characters such as Mercutio, Tybalt, and the Nurse in *Romeo and Juliet*.
19. Examine how Martin Luther King Jr.'s Christian beliefs influenced his approach to civil rights activism as portrayed by R.N. Roy.
20. What does the Winter's tale suggest about forgiveness and reconciliation?
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<b>D-6183</b>
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<b>Sub. Code</b>
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<b>12943/13143</b>
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**DISTANCE EDUCATION**

**B.Sc.(Information Technology)/B.Sc.(IT)(Lateral Entry)  
DEGREE EXAMINATION, DECEMBER 2024.**

**Fourth Semester**

**OPEN SOURCE SOFTWARE**

**(CBCS 2018 – 2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. List out any four open source software.
2. What is called cloning in Linux OS?
3. Which command is used to start the MySQL server?
4. Which MySQL command would you use to retrieve the current date and time from the server?
5. List out the PHP data types.
6. How do you declare a variable in PHP? Provide an example.
7. Show the syntax to define a tuple in python.
8. Give the syntax of for loop statement in python.
9. Write down the Perl parsing rules.
10. How do you create an array in Perl? Provide an example.

SECTION B — ( $5 \times 5 = 25$  marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) List out the advantages of open source software.

Or

- (b) Explain the scheduling concept in Linux OS.

12. (a) Explain the purpose of the SELECT statement in MySQL and provide an example query that retrieves all columns from a table named employees.

Or

- (b) How will you work with meta data? Explain.

13. (a) Explain arrays in PHP with syntax and example.

Or

- (b) Illustrate the debugging and error handling mechanisms in PHP.

14. (a) Explain Dictionaries in python with suitable example.

Or

- (b) Illustrate the exception handling in python with a sample code.

15. (a) Explain the procedure for creating packages in Perl.

Or

- (b) Explain the data manipulation statements in Perl.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Describe the architecture of Linux OS.
  17. Discuss how you would use MySQL sequences and provide an example of how to create a sequence and use it to automatically generate unique identifiers for a table.
  18. Describe the steps in PHP connectivity and also explain the procedure in sending and receiving E-mails.
  19. Explain about Modules in python.
  20. Describe the control structures in Perl with syntax and example.
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<b>D-6184</b>
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<b>Sub. Code</b>
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<b>12951/13151</b>
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DISTANCE EDUCATION

B.Sc.(IT)/B.Sc.(IT)(Lateral Entry) DEGREE EXAMINATION,  
DECEMBER 2024.

Fifth Semester

DISCRETE MATHEMATICS

(CBCS 2018 – 2019 Academic Year Onwards)

Time : Three hours

Maximum : 75 marks

SECTION A — ( $10 \times 2 = 20$  marks)

Answer ALL the questions.

1. Define sets and their basic concepts in set theory.
2. Discuss the concepts of inclusion and equality of sets.
3. Discuss the concepts of composition.
4. Define partially ordered sets and their characteristics.
5. Define binary and n-ary operations.
6. What is hashing functions?
7. Define Lagrange's theorem.
8. What are normal subgroups in algebraic systems?
9. Define Baye's Theorem.
10. Define finite probability.

SECTION B — ( $5 \times 5 = 25$  marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Write the Laws of equivalence.

Or

- (b) Write truth table and draw network diagram using logic gates  $(a.\bar{b}) + (\bar{a}.b)$ .

12. (a) Let  $A$  be a set of all straight lines in a Euclidean plane. If a relation  $R$  on  $A$  is defined by  $xRy$ . If any one if  $x$  is parallel to  $y$ . Prove that  $R$  is an equivalence relation?

Or

- (b) Let  $X = \{1, 2, 3, 4\}$  and  $R = \{(1, 1), (1, 4), (4, 1), (4, 4), (2, 2), (2, 3), (3, 2), (3, 3)\}$  write the matrix of  $R$  and sketch its graph.

13. (a) Show that  $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$  using characteristic function.

Or

- (b) Define characteristic function. Also verify that  $\sim \sim A = A$  using characteristic function.

14. (a) Show that every cyclic group of order  $n$  is isomorphic to the group  $(Z_n, +n)$ .

Or

- (b) Prove that every row or column in the composition table of a group  $(G, *)$  is a permutation of the elements of  $G$ .

15. (a) Discuss about the path matrix.

Or

- (b) State and prove multiplication theorem of expectation.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Obtain a conjunctive normal form.

$$(P \vee Q) \leftrightarrow (P \wedge Q) \equiv (P \vee Q) \rightarrow (P \wedge Q) \wedge (P \wedge Q).$$

17. Let  $A$  be a given finite set and  $\rho(A)$  its power set. Let  $\subseteq$  be the inclusion relation on the elements of  $\rho(A)$ . Draw Hasse diagram of  $(\rho(A), \subseteq)$  for

(a)  $A = \{a\}$

(b)  $A = \{a, b\}$

(c)  $A = \{a, b, c\}$ .

18. Let  $X = \{1, 2, 3\}$  and consider the functions  $f, g, h$  and  $s$  from  $X$  to  $Y$  given by :  $f = \{(1, 2), (2, 3), (3, 1)\}$   $g = \{(1, 2), (2, 1), (3, 3)\}$   $h = \{(1, 1), (2, 2), (3, 1)\}$   $s = \{(1, 1), (2, 2), (3, 3)\}$ . Verify the following : (a)  $f \circ g \neq g \circ f$  (b)  $h \circ s = s \circ h$  (c)  $s \circ s = s$ .

19. Prove that every finite group of order  $n$  is isomorphic to a permutation group of order  $n$ .

20. State and prove Baye's theorem.

<b>D-6185</b>
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<b>Sub. Code</b>
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<b>12952/13152</b>
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**DISTANCE EDUCATION**

**B.Sc.(IT)/B.Sc.(IT)(Lateral Entry) DEGREE EXAMINATION,  
DECEMBER 2024.**

**Fifth Semester**

**OPERATING SYSTEMS**

**(CBCS 2018 – 2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. What are system calls and system programs?
2. What are the key considerations in operating system design and implementation?
3. Define interprocess communication.
4. Define multiple processor scheduling.
5. Discuss producer-consumer and readers-writers problems of synchronization.
6. List the methods for handling deadlocks in operating systems.
7. Discuss the benefits and challenges of different memory allocation methods.
8. Explain the concept of deadlocks.



9. What is file system mounting?
10. Describe the implementation aspects of file systems.

SECTION B — ( $5 \times 5 = 25$  marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Explain the structure of an operating system and discuss the various components involved.

Or

- (b) Describe the operations performed by an operating system and their purpose.

12. (a) Explain the concept of process scheduling in operating systems and discuss different scheduling criteria.

Or

- (b) Compare and contrast different process scheduling algorithms used in operating systems.

13. (a) Describe the critical section problem and its significance in operating systems.

Or

- (b) Explain the hardware support for synchronization in operating systems and discuss the role of semaphores.

14. (a) Explain different memory management strategies used in operating systems, including swapping and paging.

Or

- (b) Discuss the concept of contiguous memory allocation and its advantages and limitations.

15. (a) Define the file concept in operating systems and explain different access methods for files.

Or

- (b) Discuss the structure of a file system.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Explain the design and implementation considerations for operating systems.
17. Explain the operations on processes and their role in interprocess communication.
18. Describe the characterization of deadlock and the methods for handling deadlocks.
19. Discuss the concepts of deadlock prevention, avoidance, detection and recovery in memory management.
20. Discuss file sharing and protection mechanisms, as well as the implementation aspects of file systems.
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<b>D-6186</b>
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<b>Sub. Code</b>
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<b>12953/13153</b>
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DISTANCE EDUCATION

B.Sc.(IT)/B.Sc.(IT)(Lateral Entry) DEGREE EXAMINATION,  
DECEMBER 2024.

Fifth Semester

RELATIONAL DATABASE MANAGEMENT SYSTEM  
(RDBMS)

(CBCS 2018 – 2019 Academic Year Onwards)

Time : Three hours

Maximum : 75 marks

SECTION A — ( $10 \times 2 = 20$  marks)

Answer ALL the questions.

1. What are the difference between a database systems and a file system?
2. Define data abstraction.
3. What are integrity constraints in the relational model?
4. List all the basic operations of relational algebra.
5. What is the form of a basic SQL query?
6. Discuss about nested queries.
7. Describe the concept of a transaction and its state in a database system.
8. How are atomicity and durability implemented in transactions?

9. Discuss file organization and indexing in database systems.
10. Compare hash-based indexing and tree-based indexing in database systems.

SECTION B — ( $5 \times 5 = 25$  marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Discuss the applications of database systems and compare them with file systems.

Or

- (b) Explain the data abstraction and the concept of instances and schemes in a database system.

12. (a) Define integrity constraints and discuss their importance in the relational model.

Or

- (b) Explain the querying of relational data and logical database design.

13. (a) Discuss the form and examples of basic SQL queries and nested queries.

Or

- (b) Discuss logical connectivity (AND, OR, NOT) in SQL and the concept of outer joins.

14. (a) Define transactions and discuss their states and the implementation of atomicity and durability.

Or

- (b) Explain the concepts of concurrent executions, serializability and recoverability in transaction management.

15. (a) Discuss the concepts of file organization and indexing in database systems.

Or

- (b) Compare different types of indexes, including primary, secondary, hash-based and tree-based indexes.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Discuss the components and operations of a database system.
17. Describe the operations of relational algebra.
18. Explain the use of comparison operators, aggregative operators, NULL values, and logical connectives in SQL.
19. Compare and contrast lock-based protocols, timestamp-based protocols and validation-based protocols in transaction management.
20. Discuss the techniques and considerations for performance tuning in database systems.
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<b>D-6187</b>
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<b>12961/13161</b>
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**DISTANCE EDUCATION**

**B.Sc.(IT)/B.Sc.(IT)(Lateral Entry) DEGREE EXAMINATION,  
DECEMBER 2024.**

**Sixth Semester**

**.NET PROGRAMMING**

**(CBCS 2018 – 2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. What is the Common Language Runtime (CLR) environment in .NET framework?
2. List the role of the .NET framework class library in .NET programming.
3. Name some of the key elements of the visual basic .NET IDE.
4. List the purpose and functionality of graphical and code designers in VB.NET IDE.
5. Describe about control structures, and loops.
6. What are single and multidimensional arrays?
7. Compare procedure-oriented, object-oriented and event-driven programming.

8. What are the uses of input boxes and message boxes in VB.NET?
9. Discuss the functionality of dialog boxes.
10. What is ADO.NET?

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Describe the structure and organization of the .NET framework class library.

Or

- (b) Explain the importance of data types and variables in .NET programming.
12. (a) Explain the process of handling user input using common controls in Windows forms applications.

Or

- (b) Discuss the difference between procedure-oriented, object-oriented, and event-driven programming paradigms in the context of windows common controls.
13. (a) Discuss the process of creating menus, assigning shortcuts, and handling events .NET applications.

Or

- (b) Describe the usage and implementation of dialog boxes, such as OpenFileDialog and SaveFileDialog, in .NET applications.
14. (a) Discuss the usage and implementation of inbuilt mathematical functions in .NET programming.

Or

- (b) Describe the concepts of such procedure, functions, pass by value and pass by ref.

15. (a) Explain the process of creating a database application in .NET using ADO.NET.

Or

- (b) Discuss the techniques for browsing, editing and manipulating records in a database using ADO.NET.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Discuss the role of the common language runtime (CLR) environment in executing .NET applications.
17. Describe the properties and events associated with common controls like buttons, labels, and textboxes in .NET programming.
18. Explain the purpose and usage of controls like DateTimePicker, ListBox and ComboBox in .NET programming.
19. Explore the inbuilt mathematical and string manipulation functions available in .NET programming.
20. Explain the ADO.NET object model and its components.
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<b>D-6188</b>
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<b>Sub. Code</b>
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<b>12962/13162</b>
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**DISTANCE EDUCATION**

**B.Sc.(IT)/B.Sc.(IT)(Lateral Entry) DEGREE EXAMINATION,  
DECEMBER 2024.**

**Sixth Semester**

**SYSTEM ANALYSIS AND DESIGN**

**(CBCS 2018 – 2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. Define database.
2. What is meant by logical design?
3. List the types of feasibility study.
4. List down the characteristics and elements of a system.
5. Define cost benefits analysis.
6. What are the dimensions for planning?
7. What is the objective of post-implementation review?
8. What is physical design?
9. Define the term file preparation.
10. Name any two analysis tools.

SECTION B — ( $5 \times 5 = 25$  marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Write a note on the types of system.

Or

- (b) Discuss the concept of quality assurance.

12. (a) Write a note on financial consideration during system maintenance.

Or

- (b) Write a short note on the preliminary investigations.

13. (a) How do you determine the users information requirements? Explain.

Or

- (b) What are the major development activities are found in system design? Explain.

14. (a) Write short notes on corrective maintenance of a system.

Or

- (b) Explore the basics of file hierarchy.

15. (a) Explain economical and operational feasibility with example.

Or

- (b) Explain the role of system analyst in the MIS organization.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Explain the process of system analysis.
  17. Discuss the various types of databases.
  18. Explain in detail the selection procedure for software and hardware for a system.
  19. How do you classify the forms? Explain its requirements.
  20. Discuss the concept of computer based information systems.
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<b>D-6189</b>
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<b>Sub. Code</b>
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<b>12963/13163</b>
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**DISTANCE EDUCATION**

**B.Sc.(IT)/B.Sc.(IT)(Lateral Entry) DEGREE EXAMINATION,  
DECEMBER 2024.**

**Sixth Semester**

**MULTIMEDIA AND ITS APPLICATIONS**

**(CBCS 2018 – 219 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**SECTION A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. What is hypermedia?
2. Define multimedia.
3. What is WWW?
4. Name few multimedia software tools.
5. List the types of video signals.
6. Expand MIDI.
7. List few Lossless compression algorithms.
8. What is video compression?
9. Define multimedia networks.
10. What is media-on-demand (MOD)?

SECTION B — ( $5 \times 5 = 25$  marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Illustrate the types of digital video.

Or

- (b) Explain different file formats in multimedia.

12. (a) Write a note on arithmetic coding technique.

Or

- (b) Discuss about transport of MPEG-4.

13. (a) Explain the data representation techniques.

Or

- (b) What is motion compression? Explain.

14. (a) Difference between run-length coding and variable length coding algorithms.

Or

- (b) Explore the multimedia over IP.

15. (a) Briefly explain the concept of quantization in detail.

Or

- (b) Explain about multimedia network.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Illustrate the process of digitization and transmission of audio.
17. Describe various audio compression techniques in detail.

18. Illustrate the dictionary based coding technique.
  19. Summarize the applications of multimedia networks.
  20. Describe about multimedia data transmission.
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