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 — $(10 \times 2 = 20$ மதிப்பெண்கள்)

அனைத்து வினாக்களுக்கும் ஓரிரு 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 — $(5 \times 5 = 25 \text{ bb}$ ப்பெண்கள்)

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.

D-6071

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.

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 — $(10 \times 2 = 20 \text{ marks})$

Answer ALL the questions.

- 1. Define visual communication.
- 2. Give two examples for written communication.
- 3. Define "communication gap".
- I couldn't <u>understand</u> 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 — $(5 \times 5 = 25 \text{ marks})$

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) Discus 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.

D-6072

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

Or

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

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

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.

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 — $(10 \times 2 = 20 \text{ marks})$

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 ————————————————————————————————————				
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 <i>Our Civilization?</i>				
8.	Briefly explain the connection between food and evolution as discussed by J.B.S. Haldane in <i>Food</i> .				
9.	What is the setting of Jim Corbett's tiger hunting encounter in <i>A Deed of Bravery</i> .				
10.	What social issues does Shaw critique in Pygmalion?				
	SECTION B — $(5 \times 5 = 25 \text{ marks})$				
	Answer ALL questions, choosing either (a) or (b).				
11.	(a) Describe the significance of water conservation as presented by C.V. Raman in <i>Water - the Elixir of Life</i> .				

Or

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and vanity in Mrs. Packletide's Tiger.

(b)

Explore how Saki uses satire to critique social class

12.	(a)	Explain J.B.S. Haldane's perspective on the relationship between food production and human progress in <i>Food</i> .					
		Or					
	(b)	Describe how Carl Sagan integrates scientific curiosity with historical analysis in <i>Our Ancestors</i> .					
13.	(a)	Fill in the blanks with suitable articles:					
		(i) I saw ———— (a/the) cat sitting on ————					

υ.	(a)	1.111	in the blanks with suitable articles.	
		(i)	I saw ———— (a/the) cat sitting on —	
		(1)	, ,	
			(a/the) roof.	

(ii) She is ———— (a/an) excellent dancer.

----- (A/An/The) Earth revolves around (a/the) Sun.

He wants to buy ———— (a/the) car that he (iv) saw yesterday.

They live in ———— (a/the) small house (v) near (a/the) river.

Or

(b) Change direct speech into indirect speech.

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

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.

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15.	(a)	Analyse the depiction of bravery in Jim Corbett's ${\cal A}$
		<i>Deed of bravery</i> 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 —
$$(3 \times 10 = 30 \text{ marks})$$

Answer any THREE questions.

- 16. Explain the use of anthropomorphism in Catharine M. Willson's *The Cat*.
- 17. Analyse the concept of probabtion 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.

- (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?*

Sub. Code

13013

DISTANCE EDUCATION

B.Sc.(Computer Science) DEGREE EXAMINATION, DECEMBER 2024.

First Semester

PROGRAMMING IN C

(CBCS 2018 – 2019 Academic Year Onwards)

Time: Three hours Maximum: 75 marks

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

Answer ALL the questions.

- 1. How to declare a variable in C?
- 2. What is mean by symbolic constant?
- 3. Define goto statement.
- 4. What is writing characters?
- 5. Define nesting of function.
- 6. Write a syntax of array of structure in C.
- 7. How to opening files in C?
- 8. What is argument?
- 9. Comment on chain of pointers.
- 10. Define scale factors.

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

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

11. (a) Briefly explain about history of C.

Or

- (b) Describe about identifiers in C.
- 12. (a) Write about decision making and branching statements.

Or

- (b) Briefly describe on reading and writing strings in C.
- 13. (a) Briefly explain about structure in C.

Or

- (b) Discuss about Union in C.
- 14. (a) Describe on pointer and character strings.

Or

- (b) Write a note on pointer and structure.
- 15. (a) Give a short note on I/O operations on files.

Or

(b) Explain about command line arguments.

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

Answer any THREE questions.

- 16. Discuss various operators and expression in C.
- 17. Briefly explain about Strings in C with example program.

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- 18. Explain about functions and its basics.
- 19. Discuss about string pointer in C with example program.
- 20. Illustrate on error handling method in C.

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 — $(10 \times 2 = 20$ மதிப்பெண்கள்)

அனைத்து வினாக்களுக்கும் ஓரிரு வரிகளில் விடையளிக்க.

- 1. 'தேம்பா அணியான் வாடா அருள் மகன்' யார்?
- 2. 'ഖான 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 — $(5 \times 5 = 25 \text{ bb}$ ப்பெண்கள்)

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.

D-6074

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.

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 — $(10 \times 2 = 20 \text{ marks})$

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 —
$$(5 \times 5 = 25 \text{ marks})$$

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

2

(b) Write a short note on new letters.

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

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.

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 — $(10 \times 2 = 20 \text{ marks})$

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 —
$$(5 \times 5 = 25 \text{ marks})$$

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 Wordworth 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?

D-6076

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 —
$$(3 \times 10 = 30 \text{ marks})$$

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?

D-6076

Sub. Code

13023

DISTANCE EDUCATION

B.Sc.(Computer Science) DEGREE EXAMINATION, DECEMBER 2024.

Second Semester

OBJECT ORIENTED PROGRAMMING AND C++

(CBCS 2018 – 2019 Academic Year Onwards)

Time: Three hours Maximum: 75 marks

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

Answer ALL the questions.

- 1. What is message passing?
- 2. Define manipulators.
- 3. What is default constructor?
- 4. Comment on inline function.
- 5. Differentiate multiple and multilevel inheritance.
- 6. What is binary operator overloading?
- 7. Give a note on random access to a file.
- 8. Define class template.
- 9. Write a short note on exception with constructors.
- 10. Describe about catching mechanism.

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

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

11. (a) Explain the hierarchy of console stream classes.

Or

- (b) Discuss on user-defined manipulators.
- 12. (a) Write about array of objects.

Or

- (b) Difference between copy constructor and default constructor.
- 13. (a) Briefly explain about multilevel inheritance.

Or

- (b) Write a C++ program to implement pure virtual functions.
- 14. (a) Discuss about file input/output with stream class.

Or

- (b) Write about file pointers and their manipulators.
- 15. (a) Difference between throwing mechanism and catching mechanism.

Or

(b) Explain memory allocation failure exception.

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

Answer any THREE questions.

- 16. Discuss about basics of OOPS concepts.
- 17. Briefly explain about objects and its memory allocation methods with example program.
- 18. Write a C++ program to implement any one types of inheritance.
- 19. Briefly explain about class template and function template with multiple arguments.
- 20. Why need exception handling mechanism in C++? Justify with example program.

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 — $(10 \times 2 = 20$ மதிப்பெண்கள்)

அனைத்து வினாக்களுக்கும் ஓரிரு 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 — $(5 \times 5 = 25 \text{ மதிப்பெண்கள்})$

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.

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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.

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 — $(10 \times 2 = 20 \text{ marks})$

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 — $(5 \times 5 = 25 \text{ marks})$

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 —
$$(3 \times 10 = 30 \text{ marks})$$

Answer any THREE questions.

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

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- 18. Describe how will you over come stress.
- 19. Describe leadership styles.
- 20. Describe 'coping with the change' concept.

Sub. Code 32/13732/0132

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 — $(10 \times 2 = 20 \text{ marks})$

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 — $(5 \times 5 = 25 \text{ marks})$

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.

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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)

Sub. Code 13033/13233

DISTANCE EDUCATION

B.Sc.(Computer Science)/B.Sc.(CS)(Lateral Entry) DEGREE EXAMINATION, DECEMBER 2024.

Third Semester

DATA STRUCTURES AND ALGORITHMS

(CBCS 2018 – 2019 Academic Year Onwards)

Time: Three hours Maximum: 75 marks

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

- 1. Define an algorithm. Write its characteristics.
- 2. Mention the need for asymptotic notations.
- 3. Write about stack and its functionality.
- 4. Consider the infix expression (a * b f * h)/d, write the equivalent prefix expression.
- 5. Draw the linked list representation of a tree.
- 6. Define a binary tree and list out its characteristics.
- 7. Write about the sequential search.
- 8. Differentiate the ordered and unordered linear search.
- 9. What is meant by sorting? List out the different types of sorting techniques.
- 10. When does the Bubble sort algorithm stop?

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

11. (a) Define array and list out its characteristics.

Or

- (b) Explain the Big-O notation in details.
- 12. (a) Write an algorithm to evaluate a postfix expression E.

Or

- (b) Explain in detail about the doubly linked list.
- 13. (a) Write in detail about the post-order traversal in a binary tree.

Or

- (b) What are the steps to converts a general tree into binary tree?
- 14. (a) Explain the ordered linear search with an example.

Or

- (b) Compare the binary search and linear search techniques.
- 15. (a) Explain and write the procedure for bubble sort.

Or

(b) Write in detail about tree sort.

2

Answer any THREE questions.

- 16. What is asymptotic notations? Explain each of the notations.
- 17. Write an algorithm for the implementation of the push and pop operations in stack.
- 18. Demonstrate linear search technique to search for the number 48 from following sequence 45, 3, 56, 23, 78, 48, 32, 77, 56.
- 19. Define tree. Explain the tree traversals with algorithms and examples.
- 20. Compare insertion sort and selection sort techniques.

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 — $(10 \times 2 = 20$ மதிப்பெண்கள்)

அனைத்து வினாக்களுக்கும் ஓரிரு 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. ഖത്യഖ് ഒത്താൻ ഒത്ത?
- 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 — $(5 \times 5 = 25 \text{ மதிப்பெண்கள்})$

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.

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- 18. உருவக அணியின் வகைகளைச் சான்றுடன் விவரி.
- 19. அறத்தொடு நிற்றல் விவரி.
- 20. மௌன மயங்கங்களில் சிற்பி கூறும் கருத்துக்களை விவரி.

Sub. Code

41B

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 — $(10 \times 2 = 20 \text{ marks})$

- 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?

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 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 individuals in an organization.
- 15. (a) How do you handle a social problem?

Or

(b) Examine the importance of cooperative learning skills.

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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.

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 — $(10 \times 2 = 20 \text{ marks})$

- 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?*

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

11. (a) Describe how Jim Corbett portrays the socioeconomic 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*.

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- (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.

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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 —
$$(3 \times 10 = 30 \text{ marks})$$

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?

Sub. Code 13043/13243

DISTANCE EDUCATION

B.Sc.(Computer Science)/B.Sc.(CS)(Lateral Entry) DEGREE EXAMINATION, DECEMBER 2024.

Fourth Semester

JAVA PROGRAMMING

(CBCS 2018 – 2019 Academic Year Onwards)

Time: Three hours Maximum: 75 marks

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

- 1. What is meant by variable?
- 2. Define data type.
- 3. Write syntax for if...else statement with example.
- 4. Give note about bitwise operator.
- 5. Define class and object.
- 6. What is wrapper classes?
- 7. Write down the stages in thread life cycle.
- 8. Define thread synchronization.
- 9. What is user of applet tag? List out their attributes.
- 10. Write down the methods used to draw line and ellipse with example.

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

11. (a) Elaborate java tokens.

Or

- (b) Explain various data types with necessary examples.
- 12. (a) Illustrate the assignment and logical operators with java program.

Or

- (b) Explain for and while loops with examples.
- 13. (a) Create sample and illustrate multi-level and hierarchical inheritances in java.

Or

- (b) Elaborate the overriding methods example.
- 14. (a) Explain thread life cycle.

Or

- (b) Explain exception handling in java.
- 15. (a) Elaborate the how will you prepare a simple applet.

Or

(b) Explain methods for drawing arcs and polygons with examples.

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

Answer any THREE questions.

- 16. Elaborate the history and features of java.
- 17. Analyze a java program to implement java branching statements.

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- 18. Explain about one and two-dimensional arrays with examples.
- 19. Illustrate creating your own packages, accessing the packages and using packages with example.

20. Elaborate applet life cycle.

Sub. Code 13051/13251

DISTANCE EDUCATION

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

Fifth Semester

OPERATING SYSTEMS

(CBCS 2018 – 2019 Academic Year Onwards)

Time: Three hours Maximum: 75 marks

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

- 1. Identify the components of operating system.
- 2. Compare process vs thread.
- 3. Define the term mutual exclusion.
- 4. What do you mean by semaphores?
- 5. List out the four conditions of deadlock.
- 6. Bring out the various scheduling criteria for CPU scheduling.
- 7. Comment on page fault.
- 8. What is swapping?
- 9. What is C-look disk scheduling?
- 10. How to optimize a file system?

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

11. (a) Illustrate the architecture of operating system.

Or

- (b) Define process. What are the different states of process?
- 12. (a) Elaborate on critical section problem with example.

Or

- (b) Distinguish between binary and counting semaphore.
- 13. (a) Explain deadlock with the help of resource allocation graph.

Or

- (b) Classify the different levels of scheduling.
- 14. (a) Describe the different levels of memory hierarchy and their characteristics.

Or

- (b) Analyze the concept of fixed partition multiprogramming.
- 15. (a) Summarize the role of file systems and database systems.

Or

(b) Evaluate the Shortest Seek Time First (SSTF) disk scheduling algorithm.

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Answer any THREE questions.

- 16. Describe the methods for implementing IPC using message passing systems.
- 17. Summarize the challenges in concurrent programming.
- 18. Evaluate on FCFS and RR scheduling algorithm. What are its strength and weakness?
- 19. Compare and contrast contiguous and non-contiguous memory allocation.
- 20. Illustrate the working principles of SCAN disk scheduling algorithm.

Sub. Code 13052/13252

DISTANCE EDUCATION

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

Fifth Semester

RELATIONAL DATABASE MANAGEMENT SYSTEMS

(CBCS 2018 – 2019 Academic Year Onwards)

Time: Three hours Maximum: 75 marks

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

- 1. What is a database system?
- 2. Define data abstraction.
- 3. Write a note on primary key constraint.
- 4. What is called view in a database?
- 5. List the uses of aggregate functions in SQL.
- 6. Write the purpose of triggers in database.
- 7. Define a transaction in database.
- 8. Comment on atomicity in databases.
- 9. Explain a primary index in a database.
- 10. What is cluster index?

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

11. (a) Explain the concept of data abstracting.

Or

- (b) Analyze the roles and responsibilities of database administrators.
- 12. (a) Briefly explain the purpose of the SELECT operation.

Or

- (b) Compare and contrast tuple relational calculus and domain relational calculus.
- 13. (a) Discuss the basic structure of an SQL query with an example.

Or

- (b) Briefly explain the concept of an outer join in SQL.
- 14. (a) Explain the ACID properties of transactions.

Or

- (b) Summarize the log-based protocol.
- 15. (a) Differentiate between primary and secondary indexes.

Or

(b) Discuss the indexed sequential access method.

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Answer any THREE questions.

- 16. Illustrate Entity-Relationship (E-R) model in detail.
- 17. Describe the concept of integrity constraints.
- 18. Explain the concept of normalization in database design.
- 19. Compare and contrast different concurrency control protocols used in database systems.
- 20. Summarize the B+ tree data structure.

Sub. Code 13053/13253

DISTANCE EDUCATION

B.Sc.(Computer Science)/B.Sc.(CS)(Lateral Entry) DEGREE EXAMINATION, DECEMBER 2024.

Fifth Semester

COMPUTER ARCHITECTURE

(CBCS 2018 – 2019 Academic Year Onwards)

Time: Three hours Maximum: 75 marks

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

- 1. Define addressing modes.
- 2. List out the operations and number of variations in TM32 CUP.
- 3. How control dependency is preserved?
- 4. Define correlating predictors.
- 5. State tree height reduction with an example.
- 6. Mention some of the limitations of hardware intensive approach.
- 7. When does a system failure occurs? Why?
- 8. Define module availability.
- 9. State the difference between private and shared data.
- 10. Bring out the purpose of multi-threading.

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

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

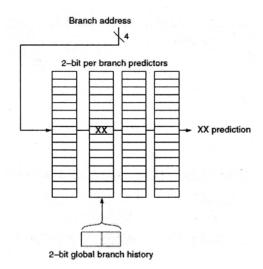
11. (a) What do you mean by "One computer is faster than another"? Explain.

Or

- (b) With a neat diagram, write a note on instruction layout for MIPS.
- 12. (a) Bring out the steps involved its instruction execution with a neat sketch.

Or

(b) How many bits are in the (0, 2) branch predictor we examined earlier? How many bits are in the branch predictor shown below?



13. (a) Show how the process of optimizing the loop overhead by unrolling the loop actually eliminates data dependences.

Or

2

(b) Elucidate on the 10-stage pipeline of an Itanium processor.

14. (a) Assume we have a computer where the Clocks Per Instruction (CPI) is 1.0 when all memory accesses hit in the cache. The only data accesses are loads and stores, and these total 50% of the instructions. If the miss penalty is 25 clock cycles and the miss rate is 2%, how much faster would the computer be if all instructions were cache hits?

Or

- (b) Write down the series of steps to follow in designing an I/O system.
- 15. (a) Show how the cache miss rates affect CPU performance.

Or

(b) Explain short on how simultaneous multi-threading converts thread-level parallelism into instruction-level parallelism.

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

Answer any THREE questions.

- 16. Elaborate on the different types of control-flow instructions.
- 17. Discuss the advantages and disadvantages of a superscalar implementation, a super-pipelined implementation, and a VLIW approach in the context of MIPS. What levels of ILP favour each approach? What other concerns would you consider in choosing which type of processor to build? How does speculation affect the results?
- 18. Give a detailed note on basic VLIW architectural approach.

- 19. Explicate on how hit time affects the clock of the processor.
- 20. Implement a blocked matrix multiply using only shared memory and using the DMA facilities with shared memory. Is the latter faster? How much? What factors make the use of a block data transfer facility attractive?

Sub. Code 13061/13261

DISTANCE EDUCATION

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

Sixth Semester

COMPUTER NETWORK

(CBCS 2018 – 2019 Academic Year Onwards)

Time: Three hours Maximum: 75 marks

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

- 1. Define a computer network.
- 2. What is called network topology?
- 3. Write about the concept of error detection.
- 4. Explain about block coding.
- 5. Explain datagram.
- 6. Write down the concept of congestion control.
- 7. What is called remote login?
- 8. Expand HTTP.
- 9. Write short note on encryption.
- 10. What does DES stand for?

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

11. (a) Write down the different types of transmission modes.

Or

- (b) Compare LAN, WAN and MAN.
- 12. (a) Write a short note on Cyclic Redundancy Check (CRC).

Or

- (b) Explain about the stop-and-wait protocol.
- 13. (a) Explain about the circuit switching

Or

- (b) Describe the routing algorithms
- 14. (a) Write short note on UDP.

Or

- (b) Write about the DNS.
- 15. (a) Explain transposition and substitution ciphers.

Or

(b) Describe symmetric key cryptography.

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

Answer any THREE questions.

2

- 16. Illustrate OSI models with seven layers.
- 17. Compare ALOHA, CSMA and CSMA/CD.

- 18. Write a note on the concept of shortest path routing.
- 19. Describe the HTTP is used to transmit web pages and resources over the internet.
- 20. Discuss asymmetric key cryptography with an example.

Sub. Code 13062/13262

DISTANCE EDUCATION

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

Sixth Semester

VISUAL BASIC PROGRAMMING

(CBCS 2018 – 2019 Academic Year Onwards)

Time: Three hours Maximum: 75 marks

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

- 1. Define GUI.
- 2. What is the use of tool bar?
- 3. Define literal.
- 4. What is subroutine?
- 5. How do you create procedure?
- 6. Define an index.
- 7. How do you create menu?
- 8. Define MDI.
- 9. What is record set?
- 10. Differentiate between commit and rollback.

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

11. (a) Briefly explain properties window.

Or

- (b) Describe the programming structure of visual basic.
- 12. (a) How do you declare variables? Give its usage.

Or

- (b) Explain the following VB controls:
 - (i) Directory list box
 - (ii) File list box.
- 13. (a) Write a short note on date and time function.

Or

- (b) Describe about event handling.
- 14. (a) How do you add code to menus? Discuss.

Or

- (b) Explain shortly basic building MDI forms.
- 15. (a) Explain briefly database object and properties.

Or

2

- (b) Narrate about the following:
 - (i) MovePrevious
 - (ii) MoveNext.

Answer any THREE questions.

- 16. Explain in detail about working with forms and controls.
- 17. Describe about looping and decision control structures.
- 18. Narrate on numeric function and recursive function.
- 19. Describe about creating MDI child forms.
- 20. Explain the steps of adding, editing records in database.

Sub. Code

13063/13263

DISTANCE EDUCATION

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

Sixth Semester

SOFTWARE ENGINEERING

(CBCS 2018 – 2019 Academic Year Onwards)

Time: Three hours Maximum: 75 marks

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

- 1. Define the term software engineering.
- 2. Mention the four phases of unified process.
- 3. What is requirement validation in software engineering?
- 4. Point out the four basic components of behavioral modeling.
- 5. What is the role of software architecture?
- 6. Name the three types of design in software engineering.
- 7. Compare verification and validation.
- 8. What is software quality measure?
- 9. What is the role of risk in software testing?
- 10. What is meant by risk mitigation?

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

11. (a) Identify and explain the three common management myths in software development.

Or

- (b) Analyze the advantages and disadvantages of waterfall model.
- 12. (a) What are the key steps involved in requirement engineering process? Discuss.

Or

- (b) Classify the different types of data models used in software engineering.
- 13. (a) Elaborate on architectural styles and patterns with neat diagram.

Or

- (b) What are the key importances of design evaluations? Explain.
- 14. (a) Describe the metrics used for analysis model and design model.

Or

- (b) Explain software measurement and its role in software engineering.
- 15. (a) Compare reactive vs proactive risk strategies in software development.

Or

2

(b) Examine the concept of risk mitigation in software engineering.

Answer any THREE questions.

- 16. Describe the two types of evolutionary process models with neat diagram.
- 17. Elaborate on scenario-based modeling and its importance in requirement engineering.
- 18. Discuss the role of architectural design in software development.
- 19. Explicate the metrics used to assess software quality and software process.
- 20. Classify the types of software reviews conducted during the development process.