

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester BVOC AUTOMOBILE/BVOC SD Degree Examination, November 2025

A11 – Basic Mathematics and General Awareness

(2022 Admission onwards)

Time: 2 ½ hours

Max. Marks : 80

PART A

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

1. If 30% of $(X + Y)$ is equal to 50% of $(X - Y)$, find the ratio $X : Y$.
2. Find the simple interest on ₹50,000 at 10% per annum for 3 years.
3. In how many ways can a committee of 5 members be formed from 8 men and 6 women, if it must include 3 men and 2 women?
4. In a row, Raju's position from the left is 12th and from the right is 15th. How many students are there in the row?
5. If green is called black, black is called white, white is called rosy, rosy is called yellow, yellow is called blue and blue is brown, what is the colour of ice?
6. Five girls are sitting on a bench to be photographed. Sita is to the left of Rani and to the right of Bindu. Mary is to the right of Rani, and Reeta is between Rani and Mary. Who is second from the left in the photograph?
7. Gaurav walks 20 km towards the north. He turns left and walks 40 km, then turns left again and walks 20 km. Finally, after turning left once more, he walks 20 km. How far is he from his starting point?
8. State an objective of the literature review in research.
9. What is meant by a research design?
10. Define macros in MS Excel.
11. What is the difference between system software and application software?
12. What is the purpose of a network router?
13. Differentiate a cheque from a demand draft in banking.
14. Name any two digital banking services in India.
15. State two key benefits of having insurance.

[Ceiling: 25 Marks]

PART B

Answer *all* questions.

Each question carries *Five* marks.

16. The difference between a number increased by 25% and the same number decreased by 30% is 22. What is the original number?
17. In how many different ways the letters of the word 'DIGEST' be arranged so that the vowels are never together?
18. Explain the difference between fundamental and applied research.
19. Write a note on the importance of research ethics.
20. Explain the benefits of using MS Office in academics.
21. Explain the main functions of an operating system.
22. Describe any kind of bank card and its uses.
23. Describe the types of shares traded in the stock market.

[Ceiling: 35 Marks]

PART C

Answer any *two* questions.

Each question carries *Ten* marks.

24. (a) The mean of five observations $x, x + 3, x + 6, x + 9, x + 12$ is 15. Find the mean of the last three observations.
(b) Two cards are drawn at random from a pack of 52 cards. What is the probability that both are black or both are queens?
25. Explain different steps in the research process.
26. What is a Database Management System? Explain its merits and demerits.
27. What are the different functions of Reserve Bank of India (RBI)?

[2 x 10 = 20 Marks]

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester BVOC AUTOMOBILE/BVOC SD Degree Examination, November 2025

A12 – Professional Business Skills

(2022 Admission onwards)

Time: 2 ½ hours

Max. Marks : 80

**PART A: Answer the following questions. Each carries 2 marks
(Ceiling 25 Marks)**

1. What is the meaning of professionalism?
2. What is the role of verbal communication in business?
3. Mention two common presentation postures.
4. What is e-learning?
5. Define digital age learners.
6. List any two e-learning platforms.
7. What is cyber informatics?
8. Name two Cybersecurity tools.
9. What is internet governance?
10. What is big data?
11. Define artificial intelligence.
12. Mention two sources of business data.
13. Name two digital marketing platforms.
14. What is the difference between B2C and B2B marketing?
15. Define SEO.

**PART B: Answer the following questions. Each carries 5 marks
(Ceiling 35 Marks)**

16. Describe any five soft skills essential for business success.
17. Explain the role of e-books and e-journals in education.
18. What are MOOCs? Explain their role in digital education.
19. Explain the role of social media in digital marketing.
20. Explain the role of citizen in e waste disposal.
21. What are cyber ethics? Discuss their importance.
22. Discuss how data analytics helps improve customer experience.
23. What are intelligent agents? Give examples.

PART C: Answer two questions. Each question carries 10 marks
(Ceiling 20 Marks)

24. Discuss the advantages and disadvantages of online learning
25. Describe PPC advertising and its benefits.
26. What are the objectives of Cybersecurity? Explain briefly.
27. Discuss the types of digital marketing with examples.

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester BVOC SD Degree Examination, November 2025

SDC3IT11 – Software Engineering

(2022 Admission onwards)

Time: 2 hours

Max. Marks : 60

PART – A

Answer all questions.

Each question carries 2 mark.

Ceiling – 20 Marks

1. What do you mean by software engineering?
2. Why are software components important in development?
3. Mention any two key characteristics of software.
4. What is the Software Development Life Cycle (SDLC)?
5. Name two commonly used software development models.
6. What is a feasibility study, and why is it needed?
7. What does SRS stand for? What is its purpose?
8. What is a Data Flow Diagram (DFD)?
9. What is meant by cohesion in the context of software design?
10. Define software architectural style.
11. What does software validation ensure?
12. How does white box testing differ from black box testing?

PART – B

Answer all questions.

Each question carries 5 marks.

Ceiling – 30 Marks

13. Describe the different phases involved in the Software Development Life Cycle.
14. Compare the Waterfall model with the Spiral model.
15. Explain how requirements are gathered during requirement elicitation.
16. What is Software Quality Assurance (SQA)? Why is it important?

17. Write a short note on software architectural design principles.
18. Explain the difference between top-down and bottom-up testing.
19. What are the different types of software maintenance?

PART – C

Answer any one question.

Each question carries 10 marks.

20. Discuss the IEEE standards commonly followed in creating SRS documents.
21. Explain different software design techniques with suitable examples.

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Third Semester BVOC SD Degree Examination, November 2025

SDC3IT12 – Programming in Python

(2022 Admission onwards)

Time: 2 ½ hours

Max. Marks : 80

PART – AAnswer *all* questions.Each question carries **Two** mark.**Ceiling -25 Marks**

1. List any two features of Python?
2. Define a data type with an example in Python ?
3. Write the syntax of a Python function ?
4. What is an object in Python?
5. Differentiate between instance variable and class variable ?
6. What do you mean by inheritance in Python?
7. Write the syntax of creating an email link using the anchor tag ?
8. Define the difference between ordered list and unordered list in HTML?
9. What is the purpose of the <frameset> tag ?
10. Expand CGI in the context of web programming?
11. What is the role of validation in form handling?
12. Differentiate between client-side and server-side scripting ?
13. List any two features of MySQL?
14. Mention two Python modules used for MySQL database connection ?
15. What is a cursor object in Python's MySQL connection ?

PART – B

Answer *all* questions.

Each question carries **Five** marks.

Ceiling -35 Marks

16. Explain the role of the Python interpreter and IDLE with examples ?
17. Differentiate between while loop and for loop in Python with examples ?
18. Describe function overloading in Python. Give a simple program example?
19. Explain exception handling in Python?
20. Differentiate between internal and external links in HTML. Give examples ?
21. Write HTML code to create a form containing a text box, password box, and a submit button.?
22. Differentiate between XAMPP and WAMP servers ?
23. Discuss the process of displaying MySQL database data on a webpage using Python ?

PART - C

Answer any *two* questions.

Each question carries **Ten** marks.

24. Discuss Python data structures (list, tuple, set, dictionary) in detail with examples ?
25. Explain different types of inheritance in Python with examples ?
26. Write HTML code to create a table that displays student information (Name, Roll No, Marks, Grade). Apply border, bgcolor, and alignment attributes ?
27. Write a Python server-side script to process a login form (username and password). Include form data capturing, validation, and error handling ?

2 x 10 = 20 Marks

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SDC3IT13 – Computer Networking concept

(2022 Admission onwards)

Time: 2 ½ hours

Max. Marks : 80

PART – A**Answer all questions.****Each question carries Two marks.****Ceiling – 25 Marks**

1. What is meant by a computer network?
2. Define the term "protocol" in networking.
3. What is the use of NAT in computer networks?
4. Write a short note on packet switching.
5. Distinguish between IPv4 and IPv6.
6. Define multiplexing and list any two types.
7. What is checksum?
8. Explain the term 'line discipline'.
9. What is meant by network congestion?
10. Define QoS.
11. What is MAC address used for?
12. Differentiate between packet switching and message switching.
13. What is a socket in networking?
14. Write a short note on PAN.
15. What is the use of SNMP?

PART – B**Answer all questions.****Each question carries Five marks.****Ceiling – 35 Marks**

16. Describe the functions of each layer in the OSI model.
17. Explain the working of Distance Vector Routing algorithm.
18. Compare TCP and UDP protocols.
19. Explain CSMA/CA with a diagram.
20. Describe the importance of cryptographic algorithms in network security.

21. Write a short note on WLAN IEEE 802.11.
22. Discuss the functioning of client-server communication using sockets.
23. Explain any two congestion control techniques in networks.

PART – C

**Answer any two questions.
Each question carries Ten marks.**

24. Explain TCP/IP reference model in detail.
25. Describe the architecture, protocols, and services of electronic mail.
26. Discuss error detection and correction methods with suitable examples.
27. Explain the working of OSPF and Link State Routing algorithm.