



Tribhuvan University
Faculty of Humanities and Social Science
Semester: II

Subject: Microprocessor and Computer Architecture
2021 Batch

Group B

Attempt any SIX questions

2. Define addressing mode? Suppose content of register A and B is 37H and 57H respectively. Find the content of flag register after ADD B is performed.
3. What is the requirement of common bus System? Explain with figure.
4. Explain Symbolic Microinstruction and microinstruction format.
5. What is stack? Give the organization of register stack with all necessary elements.
6. What is pipeline conflict? Explain data dependency and handling of branch instruction in detail.
7. Explain the basic working principle of the Control Unit with timing diagram.
8. Explain the following instructions
 - a) LHLD 5050H
 - b) CPI 34H
 - c) JNZ 6080H

Group C

Attempt any TWO questions.

9. Draw the timing diagram for MOV B. For ten bytes of data starting from 7050H, write a program to sort the reading in ascending order.
10. Explain the steps of Address Sequencing in detail. Draw and explain selection of address for control memory.
11. Discuss four-segment instruction pipeline with suitable diagram.

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Tribhuvan University
Faculty of Humanities and Social Science
Semester: II
Subject: Mathematics II
2021 Batch

Group B

Attempt any SIX questions

2. Evaluate the limit, $\lim_{x \rightarrow \theta} \frac{x \cos \theta - \theta \cos x}{x - \theta}$
3. Find the derivative $y = e^{3x-1}$ by definition method.
4. Verify Rolle's theorem for the function $f(x) = \sin x$, $x \in [0, \pi]$ and find the point on the curve where the tangent is parallel to the x axis.
5. Find maximum and minimum value of the function $f(x) = x^3 + 6x^2 + 9x - 2$. Also find the point of inflection if any.
6. Evaluate the integral
 - a) $\int \frac{2x+5}{\sqrt{x^2+5x}} dx$
 - b) $\int e^{2x} \log x dx$
7. Evaluate $\int_0^2 \sqrt{1+x^3} dx$ by using Simpson's $\frac{1}{3}$ rule by taking $n = 4$.
8. Solve the differential equation: $2 \frac{dy}{dx} = \frac{2y}{x} + \frac{y^2}{x^2}$

Group C

Attempt any TWO questions.

9. Define pivot element, pivot column and consistency in the system of equations. Using simplex method, Maximize $F = 5x - 3y$ subject to $3x + 2y \leq 6$, $-x + 3y \geq -4$, $x \geq 0$ and $y \geq 0$
10. a) Verify Lagrange's mean value theorem for the function $f(x) = \sqrt{x-1}$, $x \in [1, 3]$.
b) Solve the differential equation $xy \frac{dy}{dx} = x^2 + y^2$.
11. Compute the approximate value of integrate $\int \frac{1}{1+x^2} dx$ by using composite trapezoidal rule with three points and compare the result with the actual value. Determine the error formula and numerically verify an upper bound on it.

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Tribhuvan University
Faculty of Humanities and Social Science
Semester: II
Subject: English II
2021 Batch

Group B

Attempt any SIX questions

2. You work for Mr. Sushil Kumar Golyan, Manager of the Synergy Hotel, Sharma Path, Birgunj, Nepal.

When guests 'sign out' before they leave they are able to make any comments on their feelings about the hotel and the service they have received, You have to write a report each month for Mr. Golyan on the points raised. These are the comments made by guests last month. Prepare a report with reference to these comments made by the guests before leaving the hotel. The service in the restaurant was not very good. We often had to wait half an hour between courses.

EVERYTHING WAS LOVELY-IT IS A WELL RUN HOTEL

"There aren't enough satellite channels on the TV - no movie channels.

"Very helpful staff - very polite."

'We had a splendid holiday - but the service in the restaurant could be quicker.'

'The best hotel in Birgunj city. Very good value'

'It was three days before the broken light in my room was repaired.'

'Lovely food - but poor service at meal times. Very slow.

'The gardens are beautiful.

'We will definitely come back. The staff are very friendly!'

3. Prepare the checklist for compiling reports. Describe any two of them.
4. Identify and correct the errors in these sentences.

- When you see Melanie later, please don't mention about her hair.
- Please give Linda or myself a call if you have any questions.
- I want to reiterate again that this behavior will not be tolerated.
- Please revert to me on this matter as soonest possible.
- The said invoice is 2 months overdue for payment.
- Will you be able to send me to the airport on Friday night?
- How have you been effected by the retrenchments?
- Can you spare me sometime tomorrow to discuss your report?
- The meeting will start promptly at 12.00 am.
- Who's to blame for spilling the water all over the table?

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5. What are the basic components of arguments? Explain with appropriate examples.
6. For each of the following, write a conclusion you can draw from the statements as shown in the example.

Example: The pond is frozen this morning. It was not frozen yesterday. The temperature must have dropped to below freezing point overnight.

- a) There is a flu epidemic sweeping through the school. Gitta, one of the pupils, has a very high temperature and aching muscles, both of which are symptoms of flu.
 - b) The winter has been very severe. When we have a severe winter, the daffodils usually come into flower late.
 - c) Jane arrived before Jim, although they set off at the same time, and they were both travelling by car.
7. What are flaws in arguments? List out the major flaws and explain any one of them with at least one example.
 8. Review the story Billennium by J. G. Ballard, or Burning Chrome by William Gibson. Consider plot, characters and the writer's technological imagination among other elements in your answer.

Group C

Attempt any TWO questions.

9. Compare and contrast the stories Who Can Replace a Man? by Brian Aldiss and The Metal Man by Jack Williamson.

Or

Discuss Who Can Replace a Man? by Brian Aldiss as a science fiction story. You should consider plot, character and theme in your answer.

10. You work for Mr David Gupta, Manager of Kathmandu Fashions, Ganesh Man Street, Thamel, Kathmandu.

Mr Gupta has just been told that some urgent repair work is being made to the staff car park next week and the car park will be closed for three days from 8 to 10 August. During this time staff who use their cars to come to work can use the customers' car park but there isn't a lot of room in this. It would be helpful if staff didn't use their cars for these three days and would use the bus or make alternative transport arrangements to get to the shop. It would also help if staff could give each other lifts to work so there won't be so many cars using the car park. Mr Gupta has asked you to write a notice about the car park to be placed on the staff notice board. Write the notice.

11. In recent time, the number of electric vehicles (Two/Four Wheelers) is increasing in Nepal. In this context, write an argumentative essay about the advantages and disadvantages/challenges of using the electric vehicles. Come to a conclusion as to whether the use of electric vehicles can be a good thing or bad thing in the context of prices, taxes, battery backup and durability, among other things.

Or

12. Explain the major ways of assessing the reliability of authorities in arguments with examples.

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Tribhuvan University
Faculty of Humanities and Social Science
Semester: II
Subject: C programming
2021 Batch

Group B

Attempt any SIX questions

2. Define programming technique. Differentiate between top-down and bottom-up approach with suitable example.
3. Define Data Types. Explain different data types available in C Programming.
4. Explain bitwise and conditional operator with example.
5. Write a program to print the following pattern using loop.
U
UN
UNI
UNIV
UNIVE
UNIVER
UNIVERS
UNIVERSI
UNIVERSIT
UNIVERSITY
6. Define Array. Write a program to search an element from an array of 10 numbers.
7. Define function Write a program that find xy using function.
8. Define pointer. Write a program to find sum of 10 numbers using pointer.

Group C

Attempt any TWO questions.

9. What are the characteristics of a good program? Explain types of languages processor.
Explain any two system design tools.
10. Define file opening modes. Write a program to delete specific record from a file.
11. Differentiate between structure and Union. Locate a structure named student with members roll no, name, address. Write a program that displays name of only those students whose addressing is Kathmandu

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Tribhuvan University
Faculty of Humanities and Social Science
Semester: II
Subject: Financial Accounting
2021 Batch

Group B

Attempt any SIX questions

2. Explain about accounting cycle.
3. A company purchased a machine on 1 Baishak 2073 at Rs. 5,50,000 and spend installation cost Rs.50,000. On 1 Kartik 2074 the company purchased second machine at Rs.6,00,000 and spend for transportation and installation cost Rs. 1,00,000. On 1 Kartik 2076 machine purchased on 1 Baishak 2073 has found out of order and sold at Rs. 1,75,000. The company closed account end of Chaitra each year. The company applying diminishing method of depreciation @ 15% on assets.

Required: Machinery account for 2073 to 2076.

4. The following purchase transactions of provided to you
The following information of a Cloth Merchant has been provided to you.
April 1st Sold to Bulbule Store,
30 pieces Coat @ Rs.8000 each
10 pieces shirt @ Rs. 1,500 each (Trade discount 10 percent)
April, 12 sold to Gurung Store
100 pieces T shirt @ Rs.1500 each trade discount 20 percent
200 pieces ladies ware @ Rs. 1200 each
25 April sold to Tamang Store
150 pieces coat @ Rs.3000 each on cash
50 pieces ladies paint @ Rs.1400 each on cash
Required: Sales book and sales account

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5. The following transactions of cash and bank of Kamalamai Trading House provided to you
- 1-5-2022 Opening cash balance Rs.60,000 and bank balance Rs.60,000
 - 2-5-2022 Purchased goods from Hari for Rs.25,000 partial payment is made by Cheque Rs. 20,000.
 - 10-5-2022 Goods sold to Kiran Rs.25,000 but partial payment received Rs. 15,000 only.
 - 12-5-2022 Payment made to a creditors Rs.7,500 through Cheque.
 - 15-5-2022 Cash received from Kiran Rs.9,500 in full settlement of his account
 - 20-5-2022 Payment made to Rs.4,500 in full settlement of Hari by Cheque.
 - 23-5-2022 Purchased goods on credit from Bishal Rs.50,000
 - 30-5-2022 Cash deposited into bank Rs.5,000
- Required: Triple Column Cash Book.
6. The following store transactions of a company provides to you
- May, 1, Opening stock 2,000 units @ Rs.20 each
 - May, 3, Issued 1,800 units
 - May, 7, Purchased 1,500 units @ Rs.21 each
 - May, 10, Issued 720 units
 - May, 15, Purchased 1000 units @Rs.22 each
 - May, 18, Issued 1,400 units
 - May, 20, Return to Seller, purchased on May, 15, 30 units
 - May, 22, Return back from work order issued in 3, May 50 units
 - May, 24, Issued 500 units
 - May, 26, Purchased 600 units @ Rs.25 each
 - May, 27, Issued 470 units
 - May, 29, Stock surplus found 20 units on stock verification.
- Required: Store ledger under LIFO method.
7. A company issued 1,00,000 shares @ Rs.100 each. The money called Rs.50 on application, Rs.40 on allotment (including discount) and Rs.20 on final call. The company received 1,50,000 share applications. The board of director decided that 20,000 share application were returned and balance are adjusted in subsequent calls. A shareholder holds 1,000

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shares failure to pay final call and forfeited after final call. All the forfeited shares were reissued at Rs. 90 each. Required: Journal entries in the of company.

8. The following information are provided to you

Overdraft balance as per pass book Rs. 16,000

Cheque issued but not presented for payment Rs. 10,000

Cheque deposited but not yet collected by the bank Rs.6,000

Bank charge recorded Rs.200 as bank charge and recorded only is pass book.

A customer directly deposited into the bank Rs. 4,000

Electricity bill of Rs. 11,400 paid by the bank as per agreement but not recorded in cash book.

Required: Find out the balance as per cash book.

Group C

Attempt any TWO questions.

9. The following transactions of Superstar Supplier provided to you

1-1-2023 Started business with cash Rs,6,00,000, Computer Rs.50,000 and furniture Rs.30,000

4-1-2023 Goods purchase on cash Rs. 1,00,000 from Kalanki Suppliers.

8-1-2023 Goods purchased from Pratima Supplier Rs. 2,00,000

9-1-2023 Goods sold on Cash Rs.1,00,000

14-1-2023 Payment made to Pratima Supplier Rs. 1,95,000 as full settlement.

19-1-2023 Furniture purchased at Rs.55,000 and paid by Cheque.

2-1-2023 advertisement, Rs.10,000, rent Rs. 10,000 paid in cash, outstanding rent Rs.5,000 but office expenses Rs. 6,000 paid by Cheque.

28-1-2023 goods lost by fire Rs. 10,000 but insurance company accept 7,000 will be compensated.

28-1-2023 Loan taken from Ramchandra for business Rs.3,00,000

29-1-2023 Bad debt Rs. 3,000.

30-1-2023 Depreciate Furniture By Rs.5,000

30-1-2023 Commission earned but not received Rs.5,000.

Required a) Journal entries b) Ledger account of Pratima supplier, Furniture.

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10. The following is the trial balance of Kanchan Store on 31st December, 2022;

Heads of Accounts	Debits	Credits
Machinery	2,50,000	
Building	1,80,000	
Salaries and wages	2,32,450	
Bills receivable	1,20,000	
Goodwill	50,000	
Sundry debtors	1,38,000	
Office expenses	50,400	
Purchases	5,20,500	
Carriage outward	14,000	
Carriage inward	42,500	
Wages	29,600	
Rent	52,000	
Opening stock	1,30,000	
Discount	42,000	
Sales return	12,000	
Bad debt	4550	
Interest on bank loan	24,000	
Cash in hand and bank	26,650	
Creditors		1,28,000
Provision for doubtful debt		7,550
Sales		10,40,600
Discount received		15,000
12% Bank loan		3,00,000
Capital Notes		3,00,000
Commission		17,500
Bills payable		1,10,000
Total	19,18,650	19,18,650

Additional Information

- Closing stock Rs.2,20,000
- Depreciate machinery and building by 10% p.a.
- Further bad debt Rs. 3,000
- create provision for bad debts 5% of debtors
- One month rent Rs. 4,000 prepaid and outstanding interest Rs. 12,000
- Goods lost by fire of Rs. 12,000 and Insurance Company has admitted the claim for Rs. 7,000 only.
 - Trading Account
 - Profit and Loss Account
 - Balance sheet

11. Define double entry bookkeeping system and explain users of accounting information.

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