

HIMALAYA DARSHAN COLLEGE
2081

Time: 2 Hrs 45 Min.

Full Marks: 60
Pass Marks: 30

BCA / Second Semester / CAEN 153: English II

PRE-BOARD EXAMINATION

Group B

Short Answer Questions:

Attempt any six questions (6x5=30)

1. Can human be replaced by machine according to Brian Aldiss in his story "Who Can Replace a Man?"
Attention.
Attention.
Interest.
Design
Offensive
2. How does the story 'Billennium' picture one of the most burning problems in cities-the shortage of space and the challenges faced by over-population?
3. Elaborate, the principle of AIDA in advertisement?
4. Discuss the five key rules of good writing of the twenty-first century.
5. What are the key points to remember while composing a letter?
6. Pick out the premises and conclusions of the following argument:
Sir Edmund Hillary is a hero not because he was the first to climb Mount Everest, but because he never forgot the Sherpas who helped him achieve this impossible feat. He dedicated his life to helping build schools and hospitals for them.

-Patre S. Rajashekhar, "Mount Everest," National Geographic, September 2003

7. What are the ways in which argument can be flawed? *Develop the idea.*
8. What are the steps in constructing strong arguments?

Group C

Long Answer Questions:

Attempt any two questions: (2x10=20)

9. Write a memo to your staffs in your company Nepal Apple Incorporation, informing them that, an international acclime¹ motivational speaker, Shiv Khara would be conducting a session in the company that you work. The venue of the session would be in the company hall, from 9 Am to 4 PM on 25th of September 2022, with a half hour break in between as that would be decided by key speaker. Please inform that the Company Executive Office (CEO) will also be taking part in the meeting as a participant.
10. What is the theme of Jack Williamson's story "The Metal Man"?
11. Write an argument supporting your view that "Democracy is a rule of the people, for the people and by the people".

HIMALAYA DAKSHAN COLLEGE 2081

Full Marks: 60
Pass Marks: 30

Time: 3 Hours

BCA / Second Semester / CACS 151: C-Programming

PRE-BOARD EXAMINATION

Group - B

Attempt any SIX questions: [6*5=30]

1. What is Computer Programming? Differentiate between top down and bottom up approach of programming. [1+4]
2. Define Keywords and Identifiers in C. Explain rules for defining valid identifiers in C. [2+3]
3. Define array? Write a program to generate following output. [1+4]

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

4. Why function is required in C programming? Write a program to find smallest number from the array using function. [1+4]
5. Explain Call by value and Call by reference with suitable examples. [2.5+2.5]
6. Why we DMA instead of array? Explain DMA with suitable example. [1+4]
7. What is use of initgraph() in C program? Write a program to draw circle and rectangle using graphic function. [1+4]

Group - C

Attempt any TWO questions: [2*10=20]

1. What do you mean by Software Development Life Cycle? Explain waterfall model with its advantages and disadvantages. [2+8]
2. What is one dimensional array? How it is initialized? Write a C program to find the sum of two matrix of order $m \times n$. [1+1+8]
3. Define structure and union? Write a C program using structure that reads the records of 35 students with members roll, name, address and display the record of students who have obtained greater than 250 marks. [2+8]

HIMALAYA DARSHAN COLLEGE

2081

Full Marks: 60
Pass Marks: 30

Time: 3 Hour

BCA / Second Semester / CMAT154: Mathematics II

PRE-BOARD EXAMINATION

Group - B

Attempt Any SIX Questions:

[6 x 5 = 30]

1. Let a function $f(x)$ defined by $(x) = \begin{cases} 2x + 1 & \text{for } x < 1 \\ 4 & \text{for } x = 1 \\ 3x & \text{for } x > 1 \end{cases}$, verify the limit of the function $f(x)$ exist at $x=1$. Is the function $f(x)$ is continuous at $x=1$? If not, state how can you make it continuous at $x=1$.

2. Find the derivative of $f(x) = e^{\sin x}$ by using definition.

3. Determine whether the integral is convergent or divergent $\int_0^1 \frac{dx}{1+x^2}$

4. Using L'Hospital rule to evaluate

$$\lim_{x \rightarrow 0} \frac{7x^3 + 4}{2x^3 + 6x + 2}$$

5. Find the interval in which the functions $f(x) = 6 + 12x + 3x^2 - 2x^3$ is increasing or decreasing.

6. Solve the differential equation:

$$\frac{dy}{dx} + 10y = 5$$

7. Find out the consistency of the system of equation and solve if possible.

$$x_1 + x_2 - x_3 = 1, \quad 2x_1 + 3x_2 + 4x_3 = 3, \quad x_1 - 3x_2 + 3x_3 = 2.$$

Group - C

Attempt Any Two Questions:

[10x2=20]

8. State Mean Value Theorem. Give geometrical interpretation of Rolle's Theorem. Verify Rolle's theorem for the given function on given interval $f(x) = x^2 - 4$, $-2 \leq x \leq 2$.

9. Using composite rectangular rule, compute $\int_0^2 \frac{1}{1+x} dx$ with four intervals. Find the absolute error of approximation from its actual value.

10. Use simplex method to maximize

$$\text{maximize: } z = 5x + 3y$$

subject to :

$$2x + y \leq 40$$

$$x + 20y \leq 50$$

$$x, y \geq 0$$

Himalaya Darshan College

Pre-Board Examination 2081

Bachelor in Computer Applications
Course Title: Financial Accounting
Code No: CAAC 152
Semester: II

Full Marks: 60
Pass Marks: 24
Time: 3 hours

Group B

Attempt any SIX questions:

[6×5 = 30]

11. Define accounting. What are its function? [1+4]

12. Following transactions relating to a business were given to you 31st November 2018.

- Balance as per cash book Rs.35,000
- Cheque issued for payment but not presented at bank Rs.5,000
- Cheque sent for collection at bank but not credited by the bank Rs.15,000
- A customer directly deposited Rs.10,000 to the bank but not recorded in cash book.
- The bank has paid electricity bill of Rs.4,000 under preapproval from the firm but not recorded in cash book.

Required: Bank reconciliation statement

(5)

13. The following information were provided to you by Gurung Suppliers, Mhendra Pool, 1 November 2018 sales of goods to Shrestha store at Birauta

- 50 bags Mansuli rice @ Rs. 2,000 each.
- 30 bags Pokharali masino rice @ 2,500 per bag 70 bags Onion @ 1500 per bag.
- 15 November. Sales of goods to Bindabasini store at Bazar
- 30 bays potato @ Rs.1000 per bag
- 10 bags Sugar @ Rs.3000 per bag (Trade discount 10%)

20 November, Goods sold on cash to Raji Bhai 15 bags potato @Rs.900 per bag. 28 November, Goods sold to Hirachan store matepani

- 20 bags Rice @ Rs.1,500 per bag
- 20 bags sugar @ 3000 per bag
- 100Kg Chee @Rs.800 per Kg

Required: a) Sales book b) Sales account [4+1]

14. Furniture purchased on 1st January 2013 at Rs.5,50,000. Another furniture purchased on 1st July 2016 at Rs.5,00,000. The furniture purchased on 1st January 2013 has found unsuitable and sold at Rs.30,000 on 31st December 2016. The account of the business is closed 31st December each year. The company applied diminishing method of depreciation @ 10 percent per year.

Required: Furniture account for five years. [5]

15. The following transactions of cash and bank of Tharu Co. for the month of July has given to you.

2018, July, 1 Opening balance of cash Rs.45,000 and bank Rs.50,000.

- July 5 Goods purchase at Rs. 50,000 and payment made by cheque.
- July, 8. A cheque of Rs.40,000 received from a customer and deposited into bank.
- July 16, Goods sold at Rs.50,000 out of which partial payment received Rs.20,000 in cash.

July, 19 A cheque of Rs.20,000 issued to Hiral supplier July, 22, Cash sales @ Rs.30,000

- July, 23, Cash deposited into bank Rs.20,000
- July, 27, Rent paid to house owner Rs.13,000 by cheque July, 28 Salary paid in cash Rs.8,000

July, 30, Electricity bill of Rs.5,000 and telephone bill of Rs.3,000 paid by cheque.

[5]

16. The following material transactions of manufacturing company is provided to you:

- 2018, December, 1, Opening stock of raw material 1100 units @ Rs.10 each
- 2018, December, 5, Purchased 300 units @ Rs.9 each.
- 2018, December, 9, Issued 800 units.
- 2018, December, 14, Issued 500 units.
- 2018, December, 18, Purchased 1,000 units @11 each.
- 2018, December, 22, Returned 10 units from issued of 9 December.

2018. December, 25, purchased 500 units @10 each.
2018. December, 30, issued 900 units.

Required: Closing stock of material on 31 December, 2018 under First in First out (FIFO) method. [5]
17. The Hydropower company Ltd is issued 1,00,000 shares of Rs.100 each. The money called on application Rs.20, on allotment Rs.40 and Rs.30 on first call. The application is received for 90,000 only. The Board of director decided that all the share applications allotted in full. All the shareholders paid money in full except Shrijana holds 300 in first call.

Required: Journal entries in the book of company.

[5]

Group-C

[2x10=20]

Attempt any two questions:

18. Defined company. What are the types of company? Justify share differ with debenture.

19. The following train actions provided by Kathmandu trader to you.

- July 1, 2018 Started business on cash Rs.5,50,000 and Furniture Rs.50,000
- July 2, Cash deposited into bank Rs.1,00,000
- July 6, Goods purchased from Newa store on credit Rs. 1,00,000 and cash Rs.50,000.
- July 8, Goods sold on cash Rs.30,000.
- July 12, Goods sold to Dangol store at Rs.45,000.
- July 18, Goods of Rs.25,000 purchase from Tamang store.
- July 22, Payment made by cheque to Newa Store Rs. 90,000 in full settlement (discount received Rs.10,000).
- July 25, Cash received from Dangol store as partial payment in cash Rs.24,000 and discount given Rs. 1,000.
- July 28, Purchase of computer for office use at Rs.50,000 and paid made by cheque.
- July 29, Goods of Rs.5000 drawn by owner for private purpose.
- July 30, Paid salary in cash Rs. 12,000 and rent by cheque Rs.8,000

Required: a. Journal entries b. Purchase accounts c. Sales account

20. The following trial balance of a trader as on 31 December 2018 given below. [5+2.5+2.5]

Particular	Rs.	Particulars	Rs.
To opening stock T	43,000	By sales	2,76,000
To purchase T	1,87,500	By capital	80,000
To wages T	18,000	By 12 % bank loan	50,000
To carriage inward P	5,000	By creditors P	35,000
To Office stationery P	4,000	By Discount and commission P	3,000
To Office expenses P	3,000		
To telephone and water P	2,000		
To drawing P	2,500		
To interest on loan P	5,000		
To Computer P	50,000		
To Furniture P	40,000		
To debtors P	30,000		
To prepaid insurance P	25,000		
To bad debts P	2,000		
To discount P	4,000		
To Cash in hand P	8,000		
To cash at bank	15,000		
	4,44,000		4,44,000

Additional information:

- a. Closing stock found Rs.45,000
- b. Provide depreciation on computer and furniture by 10 percent.
- c. Prepaid insurance expired by 15,000
- d. Interest payable Rs.1,000
- e. Discount and commission receivable Rs.2,000

Required:

- a. Trading account
- b. Profit and loss account
- c. Balance sheet

HIMALAYA DARSHAN COLLEGE

2081

Time: 3 Hours

Full Marks: 60

Pass Marks: 30

BCA / Second Semester / CACS 155: Microprocessor & Computer Architecture

PRE-BOARD EXAMINATION

Group - B

Short Answer Questions:

Attempt any SIX questions:

[6 x 5 = 30]

1. What do you understand by program interrupt? Explain its types.
2. Explain the opcode fetch machine cycle for JDA 2000 with timing diagram.
3. Explain the 8085 Instruction addressing modes with example.
4. Explain microprogram sequencer.
5. Explain the organization of Microprogrammed Control Unit.
6. Define control word. Explain the procedure for generating control word for specific operation.
7. WAP to transfer 10 consecutive data from one block of memory to another. Take necessary assumption for memory location.

Group - C

Long Answer Questions:

Attempt any Two Questions:

[10 x 2 = 20]

8. For the expression $y = (A+B) * (C+D)$ write down the code for one address, two address, and three address instruction formats
9. Explain the design and control logic of Accumulator.
10. Explain the different data transfer and manipulation instructions with example.