Bachelor in Computer Application
Course Title: Financial Accounting
Coad No: CACS 152
Semester 2nd

Full Marks: 60
Pass Marks: 24
Time 3:00 hours

Candidates are required to answer the questions in their own words as far as possible.

Group B

Attempt any six questions   [6x5=30]

2. Describe about the scope of accounting.

3. You are given the following cash and banking transactions:

Ashad 1	: Balance of cash in hand Rs.100, 000 and at bank Rs.20, 000.
Ashad 4	: Goods sold on cash for Rs.35, 000.
Ashad 6	: Cash deposited into bank Rs.30, 000.
Ashad 8	: Purchased goods and issued a cheque of Rs.10,000.
Ashad 10	: Withdrawn cash from bank Rs.10,000 for office use and Rs.5, 000 for personal use.

Required: Triple Column Cash Book

4. Following information are given:

a) On Chaitra 30, cash book of XY ltd, showed a bank balance of Rs.80, 000.
b) Cheques deposited into bank but not cleared Rs. 20,000.
c) Service charge shown in pass book but not recorded in cash book Rs.5, 000.
d) Credit side of the bank column of cash book has been undercast by Rs. 3000.
e) Cheques of Rs. 20,000 were issued but not present for payment yet.
f) A customer has directly deposited Rs.5,000 into bank.

Required:- Bank reconciliation statement (BRS)

5. ABC co. purchased a plant for Rs. 500,000 on 1st Baishakh 2065. On 31st Chaitra 2067 the company sold the plant purchased on 1st Baishakh 2065, at loss of Rs. 50,000 and same date another new plant at a cost of Rs. 400,000 was purchased. The company depreciates @ 15% under diminishing balance method. The accounts are closed on 31st Chaitra.

Required:- Plant account from 2065 to 2067

6. Describe trial balance. Write any three objectives of trial balance.

7. Following are the transaction of material of a company for the month of Bhadra.

Bhadra 1	: Opening stock 800 units @Rs. 22 per unit.
"	6	: Purchased 1100 units @ Rs. 23 per unit.
"	14	: Issued 1400 units.
"	21	: Return to vender 100 units.
"	24	: Purchased 1700 units @ Rs. 24 per unit.
"	26	: Issued 400 units
"	28	: Shortage on stock verification 20 units

Required:- Store ledger under FIFO method

8. A company Limited invited application for 10,000 shares of Rs. 100 each at a premium of Rs. 20 per share payable as under.

On Application	Rs. 30.
on Allotment	Rs. 50 (including premium)
on 1st and final call	Rs. 40

The public applied for 15000 shares. Application for 3000 share were rejected and allotment of shares was made among the remaining applicants on pro-rate basis. It was decided to utilize excess application money in part payment of all.

One shareholders, holding 200 shares, failed to pay the money due on allotment and the calls.

Required: Journal entries for

a) Share application
b) share allotment
c) Share 1st and final calls

Bachelor in Computer Application

Course Title: Mathematics-II

Coad No: CAMT 154

Semester 2nd

Full Marks: 60
Pass Marks: 24
Time 3:00 hours

Candidates are required to answer the questions in their own words as far as possible.

Group B

Attempt any six questions

[6x5=30]

11. Evaluate: $\lim\limits_{x \to \theta} \dfrac{x\cos\theta - \theta\cos x}{x - \theta}$

12. Using L Hospital's rule, evaluate $\lim\limits_{x \to 0} \dfrac{\log(\tan x)}{\log x}$

13. Find the maximum and minimum value of the function $f(x) = x^3 - 6x^2 + 9x - 2$. Also, find the point of inflection (if any).

14. Evaluate: a) $\int \dfrac{2x+5}{\sqrt{x^2+5x}}\,dx$ b) $\int_0^1 \dfrac{1}{\sqrt{x}}\,dx$

15. Solve: $\dfrac{dy}{dx} = \dfrac{2x+y}{x}$

16. Use the Gauss-Seidel method to solve the given equations:

$4x - y + z = 8$, $2x + 5y + 2z = 3$, $x + 2y + 4z = 11$

17. A function $f(x)$ is defined as follows.

$$f(x) = \begin{cases} 2x + 3 \ for \ x < 1 \\ 4 \qquad\ for \ x = 1 \\ 6x - 1 \ for \ x > 1 \end{cases}$$

Is the function $f(x)$ is continues at x=1 ? If not, state how can you make it continuous at x=1?

Group 'C'

Attempt any two questions.

[2x10=20]

18. Define pivot element and pivot column.
Using simplex method, find the optimal solution of z = 7x+ 5y

Subject to $x+2y \leq 6$, $4x+3y \leq 6$, $x \geq 0, y \geq 0$

19. Define Roll's and Lagrange's mean value theorem with their geometrical interpretation. Verify Roll's theorem for the function $f(x)= \sin x$, $x \in [0,\pi]$. Also, find a point in the curve where the tangent is parallel to the x-axis.

20. a) From the first principal, find the derivative of y= cosx.
b) Use Newton-Rapshon method to solve the equation $x^3+x-1=0$ in the interval [0,1] accurate within 10^{-4}.

Best of Luck

Bachelor in Computer Applications
Course Title: **English II**
Code No: CAEN 153
Semester 2nd

Full Marks: 60
Pass Marks: 24
Time 3:00 hours

Group B

6*5=30

Short Answer Questions

1. Discuss how H.G. Wells portrays the relationship between technology and war in *The Land Ironclads*.

2. What are the fundamental features of effective communication in a professional setting? Provide a brief explanation of each.

3. Imagine you are the manager of a software development company. Write an email to your team emphasizing the importance of maintaining a healthy work-life balance while meeting project deadline.

4. Create a textual brochure showcasing the unique features of Lumbini to promote it as a global destination.

5. Discuss the significance of Ward and Rossiter discovering the hidden room. How does it impact their lives and reflect the larger themes of the story?

6. What is meant by a fallacy in reasoning? How can arguments be weakened by fallacies?

7. Evaluate the reasoning in the following statement for fallacies:

8. "Since smart phones are so popular, the best way to improve education is to replace all textbooks with smart phone apps. This will ensure every student learns better."

Group C

Long Answer Questions (Attempt any TWO) (10*2=20)

9. Compare and contrast the portrayal of artificial intelligence and automation in *The Metal Man* (focused on robotic construction) and *Who Can Replace a Man?* (focused on robot labor in society). How do both stories reflect the ethical dilemmas and societal impacts of automation?

10. Write a report highlighting the growing popularity of fast food restaurants in urban areas over the past year.

11. Write a five-paragraph argumentative essay on the impact of digital marketing on consumer behavior and the role of social media in shaping purchasing decisions.

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Bachelor in Computer Application
Course Title: Microprocessor and Computer Architecture
Code No: CAMT 155
Semester 2nd

Full Marks: 60
Pass Marks: 24
Time 3:00 hours

Group B

Attempt any SIX questions.   [6×5=30]

2. What do you mean by microprocessor? Differentiate between microprocessor and microcontroller.   [1+4]

3. Explain the opcode fetch and memory read machine cycles for MVI A, 48H with timing for execution diagram.   [5]

4. Explain the addressing modes of 8085 microprocessor with suitable examples.   [5]

5. Write an ALP using 8085 to find the largest number from a given list of numbers.   [5]

6. Define instruction pipeline. Explain the four-segment instruction pipeline.   [1+4]

7. What do you mean by mapping of instructions? Explain the procedure for mapping from instruction code to microinstruction address.   [1+4]

8. Write short notes on (any two):   [2×2.5=5]
   a) Pipeline Hazards
   b) Microprogram
   c) Stack organization

Group C

Attempt any TWO questions: [10×2=20]

9. Differentiate between Symbolic and Binary microprogram with examples. Explain the address sequencing procedure.   [4+6]

10. What is parallel processing? Explain the benefits of parallel processing. Explain the classifications of parallel processing y M.J. Flynn.   [10]

11. Write down the different data copy/transfer instructions in the 8085 microprocessor and explain with examples.   [10]

Bachelor in Computer Applications (BCA)
Course Title: C Programming
Code No: CACS 151
Semester: II

F.M: 60
P.M: 24
Time: 3 hours

Candidates are required to answer the questions in their own words as far as possible

Group B

Attempt any SIX questions.   [6 x 5 =30]

11. Define data types. Explain different types of data types available in C Programming [2+3]

12. Differentiate between while loop and do while loop. Write a C program to find the input number is prime of composite. [2+3]

13. What is computer programming? Differentiate between top down and bottom-up approach of programming. [1+4]

14. What is recursive function? Write a C program to generate the Fibonacci series up to 13ᵗʰ term using recursive function [1+4]

15. Write a program to print the following pattern using loop. [5]

```
K
K O
K O S
K O S H
K O S H I
```

16. Explain any four graphic functions in C. Write a program to draw a circle with center (50, 50). [2+3]

17. What is DMA? Explain the malloc(), calloc(), realloc() and free() function. [1+4]

Group C

Attempt any ONE question.   [2 x 10 = 20]

18. What is one dimensional array? How it is initialized? Write a C program to find the sum of two matrix of order m x n. [1+1+8]

19. What is structure? Write a C program to enter id, name and address of 25 employees into structure variable called employee and display them. [2+8]

20. What is file handling in C? What is the difference between text and binary files? Write a program to create a file named student.txt in D:\ drive and write name, roll, address and marks of a student to the file [2+2+4]

~ Good Luck ~