

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BCA DEGREE EXAMINATION DECEMBER 2024
(Third Semester)

Branch - **COMPUTER APPLICATIONS**

ACCOUNTING & INSURANCE

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Journal is a book of _____ entry. a) Rough b) Original c) Double d) Illegal	K1	CO1
	2	_____ is a summary of ledger balances. a) Journal b) Ledger c) Trial Balance d) Final Accounts	K2	CO1
2	3	Which of the following is a liability shown on the Balance Sheet? a) Cash in hand b) Debtors c) Creditors d) Closing stock	K1	CO2
	4	The Balance Sheet shows the: a) Financial performance of the business b) Financial position of the business on a specific date c) Day-to-day expenses and income d) Total sales and purchases	K2	CO2
3	5	Which of the following is NOT a direct cost? a) Direct material b) Direct labor c) Factory rent d) Direct expenses	K1	CO3
	6	What are the three major elements of cost? a) Direct material, indirect labor, and overheads b) Direct material, direct labor, and overheads c) Indirect material, indirect labor, and selling costs d) Administrative costs, selling costs, and distribution costs	K2	CO3
4	7	Which type of risk in insurance refers to the possibility of both loss and gain? a) Pure risk b) Fundamental risk c) Speculative risk d) Particular risk	K1	CO4
	8	What is the primary role of insurance? a) To eliminate risk entirely b) To provide investment returns c) To transfer risk from the insured to the insurer d) To maximize profits for the insurer	K2	CO4
5	9	Fire insurance provides cover for _____. a) Tangible assets b) Intangible assets c) Fictitious assets d) Current assets	K1	CO5
	10	What is the primary purpose of marine insurance? a) Cover for life-threatening diseases b) Protection against losses during shipping and transportation c) Retirement income security d) Financial support for education	K2	CO5

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SECTION - B (35 Marks)Answer **ALL** questions**ALL** questions carry **EQUAL** Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO																														
1	11.a.	Journalise the following transactions in the books of Ram Prasad. 2016, December 1 Commenced business with cash ₹ 50,000 2 Paid into bank ₹ 15,000 10 Bought goods from Ramu ₹ 18,000 20 Sold goods to Shyam for cash ₹ 10,000 25 Paid wages ₹ 8,000 26 Paid cash to Ramu ₹ 17,500 received discount from Ramu ₹ 500 30 paid rent ₹ 1,500	K4	CO1																														
	(OR)																																	
	11.b.	Prepare a trial balance from the following details: - Cash in hand: Rs.22,000 - Sales: Rs.1,10,000 - Purchases: Rs.70,000 - Rent: Rs.12,000 - Wages: Rs.18,000 - Machinery: Rs.45,000 - Capital: Rs.90,000 - Creditors: Rs.40,000																																
2	12.a.	Prepare the profit and loss account from the following particulars: <table><tr><th>Particulars</th><th>Rs.</th></tr><tr><td>Gross profit</td><td>2,56,250</td></tr><tr><td>Rent</td><td>6,500</td></tr><tr><td>Commissions paid</td><td>3,250</td></tr><tr><td>Salaries</td><td>9,750</td></tr><tr><td>Taxes</td><td>9,750</td></tr><tr><td>Trade expenses</td><td>1,625</td></tr><tr><td>Bank charges</td><td>1,950</td></tr><tr><td>Printing & stationery</td><td>8,125</td></tr><tr><td>Packing charges</td><td>1,625</td></tr><tr><td>Carriage outward</td><td>6,500</td></tr><tr><td>Discount received</td><td>3,250</td></tr><tr><td>Discount allowed</td><td>2,112</td></tr><tr><td>Bad debts</td><td>2,438</td></tr><tr><td>Depreciation on plant</td><td>4,875</td></tr></table>	Particulars	Rs.	Gross profit	2,56,250	Rent	6,500	Commissions paid	3,250	Salaries	9,750	Taxes	9,750	Trade expenses	1,625	Bank charges	1,950	Printing & stationery	8,125	Packing charges	1,625	Carriage outward	6,500	Discount received	3,250	Discount allowed	2,112	Bad debts	2,438	Depreciation on plant	4,875	K4	CO2
	Particulars	Rs.																																
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Salaries	9,750																																	
Taxes	9,750																																	
Trade expenses	1,625																																	
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Discount allowed	2,112																																	
Bad debts	2,438																																	
Depreciation on plant	4,875																																	
(OR)																																		
12.b.	Mention the difference between Balance sheet and Trial balance.																																	
3	13.a.	Distinguish between Cost Accounting and Financial Accounting.	K4	CO3																														
	(OR)																																	

3	13.b.	You are required to compile a statement showing cost and profit from the information given, showing clearly a) Materials consumed b) Prime Cost c) Works Cost d) Cost of Production e) Cost of Sales, f) Profit and g) Sales. <table><tr><th>Particulars</th><th>Rs.</th></tr><tr><td>Materials Purchased</td><td>2,00,000</td></tr><tr><td>Wages</td><td>1,00,000</td></tr><tr><td>Direct Expenses</td><td>20,000</td></tr><tr><td>Opening Stock of Materials</td><td>40,000</td></tr><tr><td>Closing Stock of Materials</td><td>60,000</td></tr></table> Factory overhead is absorbed at 20% on wages. Administration overhead is 25% on Work cost. Selling and distribution overhead are 20% on Cost of Production and Profit is 20% on sales.	Particulars	Rs.	Materials Purchased	2,00,000	Wages	1,00,000	Direct Expenses	20,000	Opening Stock of Materials	40,000	Closing Stock of Materials	60,000	K4	CO3
		Particulars	Rs.													
Materials Purchased	2,00,000															
Wages	1,00,000															
Direct Expenses	20,000															
Opening Stock of Materials	40,000															
Closing Stock of Materials	60,000															
4	14.a.	Classify the Various types of Risk associated with Insurance.	K4	CO4												
	(OR)															
	14.b.	Discuss the importance of Insurance.														
5	15.a.	List out the Unique Features of Marine Insurance.	K4	CO5												
	(OR)															
	15.b.	Explain the Concept of Fire Insurance.														

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO																																																				
1	16	The following balances are extracted from the ledger of Sun Moon Ltd., on 31 st March 2020. You are required to prepare a Trial Balance as on that date in proper form.	K4	CO1																																																				
		<table><tr><th>Particulars</th><th>Rs.</th><th>Particulars</th><th>Rs.</th></tr><tr><td>Drawings</td><td>6,000</td><td>Salaries</td><td>9,500</td></tr><tr><td>Capital</td><td>24,000</td><td>Sales return</td><td>1,000</td></tr><tr><td>Creditors</td><td>43,000</td><td>Purchase returns</td><td>1,100</td></tr><tr><td>Bills payable</td><td>4,000</td><td>Travelling expenses</td><td>4,600</td></tr><tr><td>Debtors</td><td>50,000</td><td>Commission paid</td><td>100</td></tr><tr><td>Bills receivable</td><td>5,200</td><td>Trading expenses</td><td>2,500</td></tr><tr><td>Loan from Karthick</td><td>10,000</td><td>Discount earned</td><td>4,000</td></tr><tr><td>Furniture and fixtures</td><td>4,500</td><td>Rent</td><td>2,000</td></tr><tr><td>Opening stock</td><td>47,000</td><td>Bank overdraft</td><td>6,000</td></tr><tr><td>Cash in hand</td><td>900</td><td>Purchases</td><td>70,800</td></tr><tr><td>Cash at bank</td><td>12,500</td><td>Sales</td><td>1,28,000</td></tr><tr><td>Tax</td><td>3,500</td><td></td><td></td></tr></table>			Particulars	Rs.	Particulars	Rs.	Drawings	6,000	Salaries	9,500	Capital	24,000	Sales return	1,000	Creditors	43,000	Purchase returns	1,100	Bills payable	4,000	Travelling expenses	4,600	Debtors	50,000	Commission paid	100	Bills receivable	5,200	Trading expenses	2,500	Loan from Karthick	10,000	Discount earned	4,000	Furniture and fixtures	4,500	Rent	2,000	Opening stock	47,000	Bank overdraft	6,000	Cash in hand	900	Purchases	70,800	Cash at bank	12,500	Sales	1,28,000	Tax	3,500		
		Particulars			Rs.	Particulars	Rs.																																																	
		Drawings			6,000	Salaries	9,500																																																	
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		Debtors			50,000	Commission paid	100																																																	
		Bills receivable			5,200	Trading expenses	2,500																																																	
		Loan from Karthick			10,000	Discount earned	4,000																																																	
		Furniture and fixtures			4,500	Rent	2,000																																																	
		Opening stock			47,000	Bank overdraft	6,000																																																	
		Cash in hand			900	Purchases	70,800																																																	
		Cash at bank			12,500	Sales	1,28,000																																																	
Tax	3,500																																																							

2	17	The following are the ledger balances extracted from the books of MSD & Co.				K4	CO2																																					
		<table><tr><th>Particulars</th><th>Amount</th><th>Particulars</th><th>Amount</th></tr><tr><td>MSD capital</td><td>50,000</td><td>Sales</td><td>3,01,000</td></tr><tr><td>Bank overdraft</td><td>8,400</td><td>Sales Return</td><td>5,000</td></tr><tr><td>Furniture</td><td>5,200</td><td>Discount (Cr)</td><td>800</td></tr><tr><td>Business premises</td><td>40,000</td><td>Taxes and insurance</td><td>4,000</td></tr><tr><td>Creditors</td><td>26,600</td><td>General expenses</td><td>8,000</td></tr><tr><td>Opening stock</td><td>44,000</td><td>Salaries</td><td>18,000</td></tr><tr><td>Debtors</td><td>36,000</td><td>Commission allowed</td><td>4,400</td></tr><tr><td>Rent from tenants</td><td>2,000</td><td>Carriage on purchases</td><td>3,600</td></tr><tr><td>Purchase</td><td>2,20,000</td><td>Provision for doubtful debts</td><td>1,000</td></tr><tr><td>Bad debts written off</td><td>1,600</td><td></td><td></td></tr></table>	Particulars	Amount	Particulars			Amount	MSD capital	50,000	Sales	3,01,000	Bank overdraft	8,400	Sales Return	5,000	Furniture	5,200	Discount (Cr)	800	Business premises	40,000	Taxes and insurance	4,000	Creditors	26,600	General expenses	8,000	Opening stock	44,000	Salaries	18,000	Debtors	36,000	Commission allowed	4,400	Rent from tenants	2,000	Carriage on purchases	3,600	Purchase	2,20,000	Provision for doubtful debts	1,000
Particulars	Amount	Particulars	Amount																																									
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Bad debts written off	1,600																																											
		Adjustments: (i) Stock on hand on 31-12-2022 was estimated as Rs. 40,120 (ii) Write off depreciation on business premises Rs.600 and furniture Rs.520 (iii) Make a provision of 5% on debtors for bad & doubtful debts (iv) Allow interest on capital at 5% and carry forward Rs.1, 400 for unexpired insurance Prepare final accounts for the year ended 31-12-2022																																										
3	18	Bombay Manufacturing Company submits the following information on 31-3-2023 Sales for the year 2,75,000 Inventories at the beginning of the year- - Raw Materials 3,000 - Work in Progress 4,000 - Finished Goods 1,10,000 Purchase of materials 65,000 Direct Labour 6,000 Inventories at the end of the year - - Raw Materials 4,000 - Work in Progress 6,000 - Finished Goods 8,000 Other expenses for the year – Selling expenses 27,500 Administrative expenses 13,000 Factory overheads 40,000 Prepare Statement of cost				K4	CO3																																					
4	19	Asses the Principles of Insurance.				K4	CO4																																					
5	20	What is Life Insurance? Classify the Life Insurance.				K4	CO5																																					

me: Three E

Maximum: 75 Marks

$$(10 \times 1 = 10)$$

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO																		
1	11.a.	Represent the data in a percentage subdivided bar diagram	K4	CO1																		
		<table><tr><td>Year</td><td>2010</td><td>2011</td><td>2012</td><td>2013</td><td>2014</td></tr><tr><td>Production in Branch A</td><td>200</td><td>400</td><td>500</td><td>300</td><td>600</td></tr><tr><td>Production in Branch B</td><td>800</td><td>1200</td><td>400</td><td>1000</td><td>600</td></tr></table>			Year	2010	2011	2012	2013	2014	Production in Branch A	200	400	500	300	600	Production in Branch B	800	1200	400	1000	600
		Year			2010	2011	2012	2013	2014													
Production in Branch A	200	400	500	300	600																	
Production in Branch B	800	1200	400	1000	600																	
(OR)																						
	11.b.	Calculate the average wages using arithmetic mean	K5	CO2																		
		<table><tr><td>Wages</td><td>75</td><td>100</td><td>120</td><td>150</td><td>200</td></tr><tr><td>No. of No. Of Labourers</td><td>5</td><td>12</td><td>20</td><td>14</td><td>9</td></tr></table>			Wages	75	100	120	150	200	No. of No. Of Labourers	5	12	20	14	9						
		Wages			75	100	120	150	200													
No. of No. Of Labourers	5	12	20	14	9																	
(OR)																						
2	12.a.	Explain the types of correlation using scatter diagram.	K5	CO2																		
		(OR)																				
		Compute the Karl Pearson's coefficient of correlation.																				
	12.b.	<table><tr><td>X</td><td>6.9</td><td>8.2</td><td>7.8</td><td>4.8</td><td>9.6</td><td>8.0</td><td>7.7</td></tr><tr><td>Y</td><td>1.9</td><td>3.5</td><td>6.5</td><td>1.3</td><td>5.5</td><td>3.5</td><td>2.2</td></tr></table>	X	6.9	8.2	7.8	4.8	9.6	8.0	7.7	Y	1.9	3.5	6.5	1.3	5.5	3.5	2.2				
		X	6.9	8.2	7.8	4.8	9.6	8.0	7.7													
		Y	1.9	3.5	6.5	1.3	5.5	3.5	2.2													
(OR)																						
3	13.a.	Random samples of weekly child births at the local maternity hospital showed the average number of births on each day of the week as follows.	K3	CO3																		
		<table><tr><td>Day</td><td>Mon</td><td>Tue</td><td>Wed</td><td>Thu</td><td>Fri</td><td>Sat</td><td>Sun</td></tr><tr><td>No. of births</td><td>65</td><td>53</td><td>35</td><td>38</td><td>62</td><td>54</td><td>43</td></tr></table>			Day	Mon	Tue	Wed	Thu	Fri	Sat	Sun	No. of births	65	53	35	38	62	54	43		
		Day			Mon	Tue	Wed	Thu	Fri	Sat	Sun											
No. of births	65	53	35	38	62	54	43															
(OR)																						
	13.b.	A random sample of 10 boys had the following I.Q.'s: 70, 120, 110, 101, 88, 83, 95, 98, 107, 100. Do these data support the assumption that the IQ of the population is 100?	K4	CO4																		
		(OR)																				
		(OR)																				
4	14.a.	Explain the components of LPP.	K4	CO4																		
		(OR)																				
		A person wants to decide the constituents of a diet which will fulfill his daily requirements of proteins, fats and carbohydrates at the minimum cost. The choice is to be made from three different types of foods. Food A has 3 units of proteins, 2 units of fat and 6 units of carbohydrates. FoodBA has 4 units of proteins, 2 units of fat and 4 units of carbohydrates.																				
	14.b.	Food C has 8 units of proteins, 7 units of fat and 7 units of carbohydrates. The minimum requirement of protein, fat and carbohydrate are 800units, 200 units and 700 units. The minimum cost in rupees per unit of food types A, B and C are 45, 40 and 85 respectively. Formulate the problem as a LPP.																				
		(OR)																				
		(OR)																				

Cont...

5	15.a.	Write the mathematical model of a Transportation problem. When will you say that it is balanced?					K3	CO5																											
	(OR)																																		
	15.b.	Obtain the initial basic feasible solution using North West Corner rule. <table><tr><td>Origin/Destination→</td><td>D1</td><td>D2</td><td>D3</td><td>Supply</td></tr><tr><td>O1</td><td>2</td><td>7</td><td>4</td><td>5</td></tr><tr><td>O2</td><td>3</td><td>3</td><td>1</td><td>8</td></tr><tr><td>O3</td><td>5</td><td>4</td><td>7</td><td>7</td></tr><tr><td>O4</td><td>1</td><td>6</td><td>2</td><td>14</td></tr><tr><td>Demand</td><td>7</td><td>9</td><td>18</td><td>34</td></tr></table>							Origin/Destination→	D1	D2	D3	Supply	O1	2	7	4	5	O2	3	3	1	8	O3	5	4	7	7	O4	1	6	2	14	Demand	7
Origin/Destination→	D1	D2	D3	Supply																															
O1	2	7	4	5																															
O2	3	3	1	8																															
O3	5	4	7	7																															
O4	1	6	2	14																															
Demand	7	9	18	34																															

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO																																
1	16	From the following prices of gold in a week in two cities, identify the city in which the prices are stable. <table><tr><td>Day</td><td>Mon</td><td>Tue</td><td>Wed</td><td>Thu</td><td>Fri</td><td>Sat</td></tr><tr><td>City A</td><td>498</td><td>500</td><td>505</td><td>504</td><td>502</td><td>509</td></tr><tr><td>City B</td><td>500</td><td>505</td><td>502</td><td>498</td><td>496</td><td>505</td></tr></table>	Day	Mon	Tue	Wed	Thu	Fri	Sat	City A	498	500	505	504	502	509	City B	500	505	502	498	496	505	K4	CO1											
Day	Mon	Tue	Wed	Thu	Fri	Sat																														
City A	498	500	505	504	502	509																														
City B	500	505	502	498	496	505																														
2	17	In a random sample of 1000 persons from city A, 400 are found to be consumers of wheat. In a sample of 800 from city B, 400 are found to be wheat consumers. Do these data reveal a significant difference between the two cities as far as the proportion of wheat consumers are concerned?	K3	CO3																																
3	18	The following table gives the weights of 8 pigs before and after introducing a particular food variety. Test whether there is any significant difference in weights at 5% level of significance. <table><tr><td>Food A</td><td>49</td><td>53</td><td>51</td><td>52</td><td>47</td><td>50</td><td>52</td><td>53</td></tr><tr><td>Food B</td><td>52</td><td>55</td><td>52</td><td>53</td><td>50</td><td>54</td><td>53</td><td>54</td></tr></table>	Food A	49	53	51	52	47	50	52	53	Food B	52	55	52	53	50	54	53	54	K3	CO3														
Food A	49	53	51	52	47	50	52	53																												
Food B	52	55	52	53	50	54	53	54																												
4	19	Use Simplex method to solve LPP Max $Z=4X_1+10X_2$ Subject to $2X_1+X_2\leq 50$ $2X_1+5X_2\leq 100$ $2X_1+2X_2\leq 90$ and $X_1, X_2\geq 0$	K4	CO4																																
5	20	Using the data given below, find the critical path. <table><tr><td>Act</td><td>1-2</td><td>1-3</td><td>2-4</td><td>2-5</td><td>3-5</td><td>4-6</td><td>5-6</td></tr><tr><td>t_o</td><td>1</td><td>1</td><td>2</td><td>1</td><td>2</td><td>2</td><td>3</td></tr><tr><td>t_m</td><td>1</td><td>4</td><td>2</td><td>1</td><td>5</td><td>5</td><td>6</td></tr><tr><td>t_p</td><td>7</td><td>7</td><td>8</td><td>1</td><td>14</td><td>8</td><td>15</td></tr></table>	Act	1-2	1-3	2-4	2-5	3-5	4-6	5-6	t_o	1	1	2	1	2	2	3	t_m	1	4	2	1	5	5	6	t_p	7	7	8	1	14	8	15	K3	CO5
Act	1-2	1-3	2-4	2-5	3-5	4-6	5-6																													
t_o	1	1	2	1	2	2	3																													
t_m	1	4	2	1	5	5	6																													
t_p	7	7	8	1	14	8	15																													