LOYOLA COLLEGE (AUTONOMOUS) CHENNAI – 600 034

B.Com. DEGREE EXAMINATION – **COMPUTER APPLICATIONS**

FIFTH SEMESTER – **NOVEMBER 2024**

UCC 5503 – ELEMENTS OF COST ACCOUNTING

Date: 16-11-2024 Dept. No. Max. : 100 Marks

Time: 09:00 am-12:00 pm

	SECTION A - K1 (CO1)	
	Answer ALL the Questions	**(10 x 1 = 10)**
1.	**Define the following terms.**	
a)	Cost Accounting.	
b)	Lead time.	
c)	Time and motion study.	
d)	Variable overheads.	
e)	Operation costing.	
2.	**MCQ**	
a)	The primary objective of cost accounting? a). To calculate profits b). To provide information for management decision making c). To calculate total revenue d). Value of stocks	
b)	In material costing, which of the following methods is used to issue materials from inventory? a). First-In, First-Out (FIFO) b). Just-in-Time (JIT) c). Absorption costing d). Marginal costing	
c)	The following is an example of direct labor? a). Salaries of factory supervisors b). Wages of machine operators c). Salaries of office clerks d). Wages of security personnel	
d)	The following is an example of a fixed overhead cost? a). Direct labor b). Factory rent c). Raw materials d). Utilities	
e)	In process costing, costs are accumulated by ____. a). Individual jobs b). Departments or processes c). Customers d). Suppliers	

	SECTION A - K2 (CO1)	
	Answer ALL the Questions	**(10 x 1 = 10)**
3.	**True or False**	
a)	Cost accounting is only concerned with historical costs and not future cost.	
b)	ABC (Activity-Based Costing) primarily focuses on assigning material costs to different cost objects.	
c)	Timekeeping is used to record the attendance and hours worked by employees.	
d)	The allocation of overheads to product is typically based on cost drivers such as machine hours or labour hours.	
e)	In process costing, the cost of abnormal losses is absorbed into the cost of good units produced.	
4.	**Match the following**	
a)	Variable cost	- Costs that remain constant irrespective of production
b)	Direct labour	- Wages paid for non-productive time
c)	Process costing	- Cost per kilometre
d)	Idle time	- Wages paid to labourers
e)	Transport industry	- Depreciation on machinery
	SECTION B - K3 (CO2)	
Answer any TWO of the following in 100 words each.		**(2 x 10 = 20)**
5.	Explain the various classifications of costs used in cost accounting. How do these classifications help in managerial decision-making? Provide examples to illustrate your points.	
6.	Calculate the amount of wages and bonus earned by the worker: Commenced job – Saturday, 23rd Jund, 8 a.m. Finished job – Wednesday, 4th July, 5 p.m. Number of pieces of work given out – 808 Number of pieces of work passed – 718 Worker's rate – Rs. 2 per hour Time allowed – 10 per hour Bonus – 50% of time saved Pay week commences at 8 a.m. on Wednesday. Assume that the employee worked an 8 hour a day and no overtime: Saturday, 4 hours.	

7.	A company named XYZ Manufacturing receives a special order for a custom product, **Job 101**, from a client. The company uses job costing to track the costs associated with the production of each custom order. The following information is available for **Job 101**: *Direct Materials:* o Raw Material A: 200 units @ $15 per unit o Raw Material B: 150 units @ $20 per unit *Direct Labor:* o Skilled Labor: 60 hours @ $25 per hour o Unskilled Labor: 40 hours @ $15 per hour *Factory Overhead:* o XYZ Manufacturing allocates factory overhead at a predetermined overhead rate based on direct labor hours. The overhead rate is $30 per direct labor hour. *Administrative Overheads* (allocated at 10% of total production costs). The company must calculate the total cost of **Job 101** and the cost per unit if 50 units are produced.
8.	A manufacturing company has four production departments, and six service departments. From the following information briefly apportion the service departments overheads to production departments only.

Production Departments		**Service Departments**	
P1	Rs. 30,000	S1 (Power)	Rs. 18,000
P2	Rs. 30,000	S2 (Purchasing Dept.)	Rs. 15,000
P3	Rs. 24,000	S3 (Stores Dept.)	Rs. 12,000
P4	Rs. 16,000	S4 (Canteen)	Rs. 9,000
		S5 (Labour Welfare)	Rs. 6,000
		S6 (Time Keeping)	Rs. 4,500

Additional Information	**P1**	**P2**	**P3**	**P4**
Horse power of machine	600	600	300	300
Value of materials purchased (Rs. In lakhs)	5	4	4	2
Number of stores requisitions	4	3	3	2
Number of workers	18	16	14	12

SECTION C – K4 (CO3)

Answer any TWO of the following in 100 words each. **(2 x 10 = 20)**

9.	The cost of sale of product A is made up as follows:

Materials used in manufacturing	Rs. 60,000

Materials used in primary packing	Rs. 10,000
Materials used in selling the product	Rs. 1,500
Materials used in the factory	Rs. 750
Materials used in the office	Rs. 1,250
Labour required in producing	Rs. 10,000
Labour required for factory supervision	Rs.2,000
Indirect Expenses-Factory	Rs. 1,000
Administration Expenses	Rs. 1,250
Depreciation on Office Building and Equipment	Rs. 750
Depreciation on Factory Building	Rs. 1,750
Selling Expenses	Rs. 3,500
Freight on materials purchased	Rs. 5,000
Advertising	Rs. 1,250

Assuming that all the products manufactured are sold, what should be the selling price to obtain a profit of 20% on selling price?

10. From the following transactions, prepare separately the stores ledger account, using the following methods: (i) FIFO and (ii) LIFO.

Jan 1	Opening balance	100 units @ Rs. 5 each.
Jan 5	Received	500 units @ Rs. 6 each
Jan 20	Issued	300 units
Feb 5	Issued	200 units
Feb 6	Received back from work order	10 units
Feb 7	Received	600 units @ Rs. 5 each
Feb 20	Issued	300 units
Feb 25	Returned to supplier	50 units purchased on 07th Feb
Feb 26	Issued	200 units
March 10	Received	500 units at Rs.7 per unit
March 15	Issued	300 units

Stock verification on 15th March revealed a shortage of 10 units.

11. Compute the Machine Hour Rate from the following data:

A company named ABC Industries uses a machine for the production of customized metal parts. The company wants to calculate the **Machine Hour Rate** to accurately allocate machine costs to each job. The machine has the following details:

- Cost of the machine: $120,000
- Expected life of the machine: 10 years

- Salvage value: $10,000
- Annual maintenance costs: $4,000
- Annual electricity consumption: 30,000 kWh @ $0.10 per kWh
- Operator's wages: $15 per hour
- Other variable overheads: $5 per machine hour
- Annual working hours: 2,500 hours
- Machine downtime for maintenance and repairs: 500 hours per year

The company wants to calculate the Machine Hour Rate considering both fixed and variable costs.

12. From the following data relating to two vehicle A & B, compute the cost per running mile.

	Vehicle A Miles	**Vehicle B Miles**
Mileage run (Annual)	15,000	6,000
Estimated life of vehicles	1,00,000	75,000
Miles run per gallon of fuel	20	15
	Rs.	***Rs.***
Cost of vehicle	25,000	15,000
Road tax (annual)	750	750
Insurance (annual)	700	400
Garage rent (annual)	600	500
Supervision & salaries	1200	1200
Drivers wages per hour	3	3
Cost of fuel per gallon	3	3
Tyre allocation per mile	0.80	0.60
Repairs & maintenance per mile	1.65	2.00

Charge interest at 5% per annum on cost of vehicles. The vehicles run 20 miles an hour on average.

SECTION D – K5 (CO4)

Answer any ONE of the following in 250 words **(1 x 20 = 20)**

13. A company produces **Product A** and **Product B** in a single manufacturing facility. The following costs are incurred:

Direct Materials:

- Product A: $25,000
- Product B: $20,000

Direct Labor:

- Product A: $15,000
- Product B: $12,000

Factory Overheads (allocated based on direct labor hours):

- Factory Rent: $12,000
- Depreciation: $8,000
- Power and Utilities: $10,000
- Indirect Labor: $6,000

Administrative Overheads (allocated equally to both products): $10,000

Selling and Distribution Overheads:

- Product A: $4,000
- Product B: $3,000

Production Quantity:

- Product A: 500 units
- Product B: 400 units

You need to prepare a cost sheet for both products, allocating factory overheads based on labor hours.

14. a). During first week of April 2008 the workman Mr. Kalyan manufactured 300 articles. He receives wages for a guaranteed 48 hour week at the rate of Rs.4 per hour. The estimated time to produce one article is 10 minutes and under incentive scheme the time allowed is increased by 20%. Calculate his gross wages according to:

i) Piece work with a guaranteed weekly wage, ii) Rowan premium bonus, iii) Halsey premium bonus 50% to workman. **(10 marks)**

b). A company manufactures 5,000 units of a product per month. The cost of placing an order is Rs.100. The purchase price of the raw materials is Rs.10 per kg. The reorder period is 4 to 8 weeks. The consumption of raw materials varies from 100 kgs. To 450 kgs. Per week; the average consumption being 275 kgs. The carrying cost of inventory is 20% per annum. You are required to calculate reorder quantity, maximum level, minimum level and average level.

(10 marks)

SECTION E – K6 (CO5)

Answer any ONE of the following in 250 words **(1 x 20 = 20)**

15. A company has two production departments and two service departments. The data relating to a period are as under:

	Production Departments		**Service Departments**	
	PD1	**PD2**	**SD1**	**SD2**
Direct Materials (Rs.)	80,000	40,000	10,000	20,000
Direct Wages (Rs.)	95,000	50,000	20,000	10,000
Overheads (Rs.)	80,000	50,000	30,000	20,000

Power Requirement at Normal Capacity Operations (KWH)	20,000	35,000	12,500	17,500
Actual Power Consumption during the Period (KWH)	13,000	23,000	10,250	10,000

The power requirement of these departments are met by a power generation plant. The said plant incurred an expenditure, which is not included above, of Rs. 1,21,875 out of which a sum of Rs. 84,375 was variable and the rest fixed.

After apportionment of power generation plant costs to the four departments, the service department overheads are to be redistributed on the following bases:

	PD1	**PD2**	**SD1**	**SD2**
SD1	50%	40%	-	10%
SD2	60%	20%	20%	-

Your are required to:

i). Apportion the power generation plant costs to the four departments.

ii). Re-apportion service department cost to production departments.

iii). Prepare the overhead rates per direct labour hour of production departments, given that the direct wage rates of PD1 and PD2 are Rs.5 and Rs.4 per hour respectively.

16. The following details are extracted from the costing records of Abraham oil mill for the year ended 31st March 2021 purchase of 500 tons of copra Rs. 200,000.

Particulars	**Crushing**	**Refining**	**Finishing**
Cost of labour	2,500	1,000	1,500
Electric power	600	360	240
Sundry material	100	2,000	-
Steam	600	450	450
Repairs of machinery	280	330	140
Factory expenses	1,320	660	220

Cost of casks Rs. 7,500

300 tons of crude oil were produced.

250 tons of oil were produced by the refining process.

248 tons of refined oil were finished for delivery.

Copra sacks sold for Rs. 400.

175 tons of copra residue sold for Rs. 11,000

Loss in weight in crushing 25 tons. 45 tons of by-products obtained from refining process Rs. 6,750.

You are required to show the account in respect of each of the following stages of manufacturing for the purpose of arriving at the cost per ton of each process and the total cost per ton of the

	finished oil. (a) Copra crushing process (b) Refining process (c) Finishing process including casking.

****