TIME: 3 hours **Maximum Marks: 100**

Question No. 1 is compulsory
Answer any four from the rest.
Working Notes should form part of the answer.

1

a) **What is Cost Analysis? How it is useful in Decision Making**?

b) **List out the assumptions of Break Even Analysis**.

I. .

c) Fitwell Ltd a large manufacturing company has three factories namely factory 'A' factory 'B' and factory 'C'. All the three factories produce the same product which is sold at Rs. 375 per unit. The factory wise estimates of operating results for 1986 are as under:

	A	**B**	**C**	**Rs. in lacs**
	Rs.	**Rs.**	**Rs.**	**Total**
Sales	300	1200	600	2100
Costs:				
Raw material	75	350	145	570
Direct labour	75	280	140	495
Factory overheads –variable	20	110	55	185
Fixed	40	120	60	220
Selling & distribution Overheads – variable	23	70	40	133
Fixed	15	50	30	95
Administrative OH	20	90	40	150
Head office expenses	12	50	30	150
Total	280	1120	540	1940
Profit	20	80	60	160

When the above estimates were under finalisation, the company's legal departments advised that the least of factory 'A' was due to expire on 31st December, 1985 and that it could be renewed by enhancing the lease rent by Rs. 12 lacs per annum. Since this enhancement will have a heavy impact on the profitability of the company, the management will have a heavy impact on the profitability of the company; the management is constrained to examine the proposals which are as under:

I. Renew the lease and bear the impact

II. Close down factory 'A' sell off the plant, machinery and stocks and liquidate all liabilities including the staff and worker's retrenchment compensation from the sale proceed which are sufficient for this purpose.

In order however to maintain the customer relations the total planned output of the factory 'A' will be transferred to EITHR Factory 'B' OR factory 'C'. Plant capacity is available at both the factories to take over the manufacture. The additional cost involved in the manufacture of the extra output so transferred in factories 'B' and 'C' are estimated as under:

	Factory A	Factory B
(A) additional fixed overheads due to increased capacity utilisation (per annum)	Rs. 50 lacs	Rs. 40 lacs
(B) additional freight, selling and other overheads to produce and distribute the output to the present customers of factory 'A'	Rs. 25 per unit	Rs. 35 per unit

You are required to prepare comparative statements of profitability in the aforesaid alternative courses of action and give your recommendations.

2

a. **Difference between Marginal Costing and Absorption Costing.**

b. **Define the 'Sunk Cost'**.

c. The following data have been obtained from the records of a machine shop for an average month:

BUIDGET

Number of working days	25
Working hours per day	8
Number of direct workers	16
Efficiency	One standard hr per clock hr
Down time	20%
Over heads	Rs.
Fixed	15360
Variable	20480
The actual date for the month of September are as under	
Overheads	
Fixed	16500
Variable	14500
Net operator hours worked	1920
Standard hours produced	2112
There was a special holiday in September 1985	

Required to present a special report to departmental manager:
(i) Showing the three costs ratios you have chosen
(ii) Setting out the analysis of variances.

3

(a) **How are cost variance dispose off in a standard costing system?**

(b) In standard costing certain ratios are used to illustrate the effective use of the reasons of the company. Define any three of these ratios.

(c) Sterling Enterprises has prepared a draft budget for the next year as follows:

		10000 units
Sales Price Per unit		Rs. 30
Variable cost pre unit:	Rs.	
Direct material	8	
Direct labour (2 hrs × Rs. 3)	6	
Variable OH (2 hrs × Rs. 0.50)	1	15
Contribution per unit		15
Budgeted contribution		150000
Budgeted fixed cost		140000
Budgeted profit		10000

The Board of Directors is dissatisfied with this budget, and ask a working party to come up with an alternate budget with a higher profit figures.

The working party reports back with the following suggestion which will lead to a budgeted profit of Rs. 25000. The company should spend Rs. 28500 on advertising and put the sales price up to Rs. 32 per unit. It is expected that sales volume would also rise, in spite of the price increase, to 12000 units. In order to achieve the extra production capacity. However, the work force must be able to reduce the time taken to make each unit of the product. It is proposed to offer a pay and productivity deal, in which the wage rate per hour is increased to Rs. 4. The hourly rate for variable overhead will be unaffected.

Prepare a revised budget giving effect to the above suggestions.

4

(a) Critically examine "It is prudent to hold large inventories in an inflationary economy".

(**b) Explain the concept of activity based costing. How ABC system supports corporate strategy?**

(c) A company has 10 direct workers, who work for 25 days a month of 8 hours per day. The estimated down time is 25% of the total available time. The company received an order for a new product. The first unit of the new product requires 40 direct labour hours to manufacture the product. The company expects 80% (index is – 0.322) learning curve for this type of work. The company uses standard absorption costing and the cost data are as this type of work.

Direct material	Rs. 60 per unit
Direct labour	Rs. 6 per direct labour hour
Variable overhead	Rs. 1 per direct labour hour
Fixed overheads	Rs. 1700 per month

Required:

(i) Calculate the cost per unit of the first order of 30 units

(ii) if the company receives a repeat order for 20 units, what price will be quoted to yield a profit of 25% on selling price.

5

(a) Discuss the scope of cost reduction in the area of works services.

(b) State three applications of direct costing

(c) PYE Ltd produces and markets a very popular product called P. the company is interested in presenting its budget for the second quarter of 1993.

The following information's are made available for this purpose:

a) it expects to sell 50,000 bags of P during the second quarter of 1993 at the selling price of Rs. 9 per bag.

b) Each bag of P requires 2.5 kgs. Of a raw material called Q and 7.5 kgs. Of raw material called R

c) Stock levels are planned as follows

	Begin. of quarter	**End of quarter**
finished bags	15000	11000
Raw Material P (Nos)	32000	26000
Raw material (Q)	57000	47000
Empty bags	37000	28000

d) Q costs Rs. 1.20 per kg R costs 20 paise per kg and empty bag costs 80 paise each.

e) it requires 9 minutes of direct labour time of produce and fill one bag of P. labour cost is Rs. 5 per hour.

f) Variable manufacturing costs Re.0.45 per bag. Fixed manufacturing costs Rs.30,000 per quarter

g) Variable selling & distribution expenses are 5% of sales and fixed administration and selling expenses are Rs. 25,000 per quarter.

You are required to:

I. Prepare a production budget for the said quarter.

II. Prepare a raw material purchase budget for Q, R, and empty bags for the said quarter in quantity as well as in rupees.

III. Compute the budgeted variable cost to produce one bag of P

IV. Prepare a statement of budgeted net income for the said quarter and show both per unit and total cost

6. (a) The Secretary of a school is taking bids on the City's four school bus routes. Four companies have made the bids as detailed in the following table:

	Bids (in Rs)			
	Route 1	Route 2	Route 3	Route 4
Company 1	4,000	5,000	--	--
Company 2	--	4,000	--	4,000
Company 3	3,000	--	2,000	--
Company 4	--	--	4,000	5,000

Suppose each bidder can be assigned only one route. Use the assignment model to minimize the school's cost of running the four bus routes.

(b) One of the activities in a PERT project has an expected duration of 12 weeks with a standard deviation of 2 weeks. The most likely time estimate of this activity is 12 weeks, Calculate the optimistic and pessimistic time estimates for this activity.

(c) What are Pseudo-random numbers?

PRIME ACADEMY
28th SESSION MODEL EXAM
COST MANAGEMENT
SUGGESSTED ANSWERS

1

a) Cost analysis is the break up / classification of the aggregate costs into relevant types. Such an analysis of cost is an essential pre-requisite of controlling costs as well as of decision making.

Identifiability of cost (direct cost) with such units of products of operations is one such basis of cost classification. The importance of distinguishing costs as direct or indirect lies in the fact that direct costs have to be apportioned on the basis of certain assumptions. Thus, it is helpful for management if costs are classified on the basis of their identifiably with the units of products, processes or work orders. This is so because direct costs are controllable at the operational level where as indirect costs are not amenable to such control.

For the purpose of decision making and control, costs are distinguished on the basis of their relevance to the different types of decision and control functions. Thus, expenditure which has taken place, is irrecoverable in a situation, is regarded as Sunk Cost. Cost incurred as a result of past decisions which cannot be altered by another decision at a subsequent date is known as Sunk Cost. Thus, for decision with future implications, a sunk cost is an irrelevant cost. If a decision has to be made whether to replace the existing plant is to be regarded as a sunk cost as it is irrelevant to the question of its replacement. The decisive factor would be the difference in income which will result from the installation of a new plant, and the expected rate of return on the new investment.

Costs which are relevant are only to be taken into account and all such costs are analysed accordingly. Present and future cash expenditure connected with a decision is the result of proper cost analysis.

a) The assumptions underlying break even analysis as follows

I. All costs can be classified into fixed and variable components.
II. Both revenue and cost functions are linear over the range of activity under consideration.
III. Prices of output and input remain unchanged.
IV. Productivity of the factors of production will remain the same.
V. The state of technology and the process of production will not change.
VI. There will be no significant change in the level of inventory.
VII. The company manufactures a single product.
VIII. In the case of a Multi – Product Company, the sales mix will remain unchanged.

b) Fitwell Ltd a large manufacturing company has three factories namely factory ‘A’ factory ‘B’ and factory ‘C’. All the three factories produce the same product which is sold at Rs. 375 per unit. The factory wise estimates of operating results for 1986 are as under:

	A	B	C	Rs. in lacs
	Rs	**Rs.**	**Rs.**	**Total**
Sales	300	1,200	600	2,100
Costs:				
Raw material	75	350	145	570
Direct labour	75	280	140	495
Factory overheads –variable	20	110	55	185
Fixed	40	120	60	220
Selling & distribution Overheads – variable	23	70	40	133
Fixed	15	50	30	95
Administrative OH	20	90	40	150
Head office expenses	12	50	30	150
Total	280	1,120	540	1,940
Profit	20	80	60	160

When the above estimates were under finalisation, the company's legal departments advised that the least of factory 'A' was due to expire on 31st December, 1985 and that it could be renewed by enhancing the lease rent by Rs. 12 lacs per annum. Since this enhancement will have a heavy impact on the profitability of the company, the management will have a heavy impact on the profitability of the company; the management is constrained to examine the proposals which are as under:

I. Renew the lease and bear the impact

II. Close down factory 'A' sell off the plant, machinery and stocks and liquidate all liabilities including the staff and worker's retrenchment compensation from the sale proceed which are sufficient for this purpose.

in order however to maintain the customer relations the total planned output of the factory 'A' will be transferred to EITHR Factory 'B' OR factory 'C'. Plant capacity is available at both the factories to take over the manufacture. The additional cost involved in the manufacture of the extra output so transferred in factories 'B' and 'C' are estimated as under:

	Factory A	Factory B
(A) additional fixed overheads due to increased capacity utilisation (per annum)	Rs. 50 lacs	Rs. 40 lacs
(B) additional freight, selling and other overheads to produce and distribute the output to the present customers of factory 'A'	Rs. 25 per unit	Rs. 35 per unit

Fitwell limited
Impact on profit of continuance of production by renewing the lease

		FACTORIES			
		A Rs.	**B Rs.**	**C Rs.**	**Total Rs.**
Sales	**(a)**	**300**	**1200**	**600**	**2100**
Costs:					
Raw material		75	350	145	570
Direct labour		75	280	140	495
Factory overheads (variable)		20	110	55	185
Selling & Distribution overheads					
Variables		23	70	40	133
Total variables	**(b)**	**193**	**810**	**380**	**1383**
Contribution	**(a – b)**	**107**	**390**	**220**	**717**
Factory overheads (fixed)		40	120	60	220
Selling & distribution (fixed)		15	50	30	95
Administration overheads		20	90	40	150
Head office expenses		12	50	30	92
Additional lease rent		12	-	-	12
Total fixed overheads		99	310	160	569
Profit	**(c)**	**8**	**80**	**60**	**148**

Working notes:

(a) variable and fixed costs when the production of factory ‘A’ is transferred to factory ‘B’ Rs. in lacs			
	Sales	Variable costs	Fixed costs
B	1,200	810.00	310
A	300	202.50 (see note 1)	-
Additional costs		20.00 (see note 2)	50
Total	**1,500**	**1,032.50**	**360**
(b) variable and fixed costs when the production of factory ‘A’ is transferred to factory ‘C’			
	Sales	Variable costs	Fixed costs
C	600	380	160
A	300	190 (see note 3)	-
Additional costs		28 (see note 4)	40
Total	**900**	**598**	**200**

Comparative Statements of Profitability

	When production of factory A is transferred to factory B			**When production of factory A is transferred to factory C**		
	A Rs.	**B Rs.**	**Total Rs.**	**C Rs.**	**D Rs.**	**Total Rs.**
Sales	1500.50	600	2100.00	1200	900	2100
Variable costs	1032.50	380	1412.50	810	598	1408
Contribution	467.50	220	687.50	390	302	692
Fixed costs	360.00	160	520.00	310	200	510
Profit	107.50	60	167.50	80	102	182

Since, transfer of production of factory 'A' to factory 'C' yields highest profit, i.e Rs. 182 lacs, this course is recommended.

Notes:

I. 810 / 1200 × 300 = 202.5 lacs
II. Additional units = 80000 units
additional V.C = 80000 × Rs. 25 = 20 lacs
III. 380 / 600 × 300 = 190 lacs
IV. (80000 × Rs. 35) = 28 lacs.

2)

a. Difference between Marginal Costing and Absorption Costing.

S.No	Marginal Costing	Absorption Costing
1	Only one variable costs are considered for pricing decision making	Both fixed and variable costs are considered for product pricing and inventory valuation
2	Fixed costs are regarded as period costs. The profitability of different products is judged by their P/V ratio	Fixed costs are charged to the cost of production. Each products bears a reasonable shares of fixed costs and thus the profitability of a product is influenced By an apportionment of fixed costs
3	Costs data presented highest the total contribution of each product	Cost data are presented on a conventional pattern. Net profit of each product is determined after subtracting the fixed costs are along with the variable cost.
4	The difference in the magnitude of opening stock and closing stocks does not affect the unit cost of production.	The difference in the magnitude of opening and closing stock affects the unit cost of production due to the impact of the related fixed cost.
5	The classification of the expenses is based on behaviour of expenses as fixed and variable.	The classification of expenses is based on the a functional basis
6	Contribution from various products is used as a fund which fixed are deducted to get profit & hence there will be no under or over absorption of fixed overheads.	Fixed expenses are distributed over produce on a pre determined basis and as expenses fixed expenses are constant this procedure will lead to under or over recovery of fixed overheads.
7	Marginal costing aids decision making	Absorption costing distort decision making

b. **Define the 'Sunk Cost'**.

Costs which do not change under given circumstances and do not play any role in decision making process are known as sunk costs. They are historical costs incurred in the past. In other words, these are the costs which have been incurred by a decision made in the future. These costs are however, best basis of preceding future costs. Amortisation of past expenses is the clearest kind of sunk cost.

c. The following data have been obtained from the records of a machine shop for an average month:

BUDGET

Number of working days	25
Working hours per day	8
Number of direct workers	16
Efficiency	One standard hr per clock hr
Down time	20%
Over heads	Rs.
Fixed	15360
Variable	20480
The actual date for the month of September are as under	
Overheads	
Fixed	16500
Variable	14500
Net operator hours worked	1920
Standard hours produced	2112
There was a special holiday in September 1985	

Required to present a special report to departmental manager:

(i) Report to departmental manager showing the cost ratios

(a) Efficiency ratio:

$$\frac{\text{Standard hours produced}}{\text{actual hours worked}} = \frac{2112}{1920} \times 100 = 110\%$$

(b) Activity ratio

$$\frac{\text{Standard hours produced}}{\text{Budgeted std. hours}} = \frac{2120}{2560} \times 100 = 82.50\%$$

(c) Standard capacity usage ratio:

$$\frac{\text{Budgeted hours}}{\text{Max. Possible hrs}} = \frac{2560}{3200} \times 100 = 80\%$$

(d) Actual capacity utilisation ratio

$$\frac{\text{Actual hours}}{\text{Budgeted hours}} = \frac{1920}{2560} \times 100 = 75\%$$

(e) Calendar ratio:

$$\frac{24}{25} \times 100 = 96\%$$

(ii) Report to the Departmental Manager setting out the Analysis of Variances

Standard fixed overhead rate pre hour: $\frac{\text{Rs.15360}}{2560}$ = Rs. 6

A. fixed overheads	**Rs.**
(a) charged to production 2,112 × Rs. 6	12,672
(b) actual hours × std. rate 1920 × Rs. 6	11,520
(c) revised budgeted hours × std. hrs 24 × 8 × 16 × 80 /100 × Rs. 6	14,746
(d) original budgeted overheads	15,360
(e) actual overheads	16,500
Variances	**Rs.**
Efficiency (a-b)	1,152 (F)
Capacity variance (b-c)	3,226 (A)
Calendar variance (c-d)	614 (A)
Volume variance (a-d)	2,688 (A)
Expenditure variance (d-e)	1,140 (A)
Total variance (a-e)	3,828 (A)
B. variable overheads	**Rs.**
Std. variable rate per hour Rs. 20480 / 2560 = Rs. 8	
(a) charged to production 2112 × Rs. 8	16,896
(b) actual hours × std. rate 1920 × Rs. 8	15,360
(c) actual overheads	14,500
variances	
efficiency variance (a-b)	1,536 (F)
Expenditure variance (b-c)	860 (F)
Total variance (a-c)	2,396 (F)
NOTE: F stands for Favorable A stands for adverse	
Working notes:	
Maximum possible hours (25 × 8 ×16)	3,200
Budgeted hours : 3200 less 20% down time	2,560
Actual hours	1,920
Budgeted std. hours	2,560
Standard hours produced	5,112
Budgeted working days b	25
Actual working days	24

3) (a) There is no unanimity of opinion among Cost Accountants regarding the disposition variances. The following are commonly used for their disposition:

1. transfer all variances to profit & loss A/C. under this method, stock of work in progress, finished stock and cost of sales are maintained at standard cost and variances arising are transferred to profit & loss A/C

2. Distributing variances on pro – rata basis over the cost of sales, work in progress a finished goods stocks by using suitable basis.

3. Write off quantity variance to profit & loss A/C and spread price variance over C cost of sales, work in progress and finished goods. The reason behind apportioning price variance to inventories and cost of sales is that they represent costs although they are derived as variances.

(b) Definition of ratios used in standard costing:

I. **Efficiency ratio**
Represents the standard hour's equivalent to work produced expressed as a percentage of actual hours spent in producing the work.

II. **Activity ratio**
is the number of standard hours equivalent to work produced, expressed as a percentage of the budgeted standard hours.

III. **Standard capacity usage ratio**
is the relationship between the budgeted number of working hours and the maximum possible working hours in a budget period

IV. **Actual capacity usage ratio**
is the relationship between the actual number of working hours and the budgeted number of working hours in a period.

V. **Calendar ratio**
is the relationship between the actual number of working days in a period and the number of working days in relative budget period.

(c) Sterling Enterprises has prepared a draft budget for the next year as follows:

	10000 units
Sales Price Per unit	Rs. 30
Variable cost pre unit: Rs. Direct material 8 Direct labour (2 hrs × Rs. 3) 6 Variable OH (2 hrs × Rs. 0.50) 1	15
Contribution per unit Rs.	15
Budgeted contribution Rs.	150000
Budgeted fixed cost Rs.	140000
Budgeted profit Rs.	10000

The Board of Directors is dissatisfied with this budget, and ask a working party to come up with an alternate budget with a higher profit figures.

The working party reports back with the following suggestion which will lead to a budgeted profit of Rs. 25000. The company should spend Rs. 28500 on advertising and put the sales price up to Rs. 32 per unit. It is expected that sales volume would also rise, in spite of the price increase, to 12000 units. In order to achieve the extra production capacity. However, the work force must be able to reduce the time taken to make each unit of the product. It is proposed to offer a pay and productivity deal, in which the wage rate per hour is increased to Rs. 4. The hourly rate for variable overhead will be unaffected.

Working notes:

	Rs.	Rs.
(I) the revised target contribution will be		
Target profit (A)		25,000
Original budgeted fixed cost	140,000	
Advertising cost	28,500	
Total fixing cost (B)		168,500
Revised target contribution (A+B)		193,500
(II) the target variable cost will be:		
Budgeted sales revenue (A) (12000 × Rs. 32)		384,000
Target contribution (B)		193,500
Target variable cost (A-B)		190,500

(III) the target labour and variable overhead costs will be: Of the above target variable costs, some are direct material costs, and the rest consist of labour and variable overhead (based on hourly rate of Rs. 4 and Rs. 0.50 respectively)		
		Rs.
Target variable cost		190500
Less: material cost (12000 × Rs. 8)		96000
Target labour and variable overhead costs		94500
(IV) The target production time per unit will be:		
Sales unit		12000
Target labour and variable OH cost per unit 94500 / 12000		Rs. 7.875
Rate per hour (Rs. 4 + Re. 0.50)		Rs. 4.50
Target production time–labour & overhead (Rs. 7.875 /Rs. 4.50)		1.75 hours
A time of 1.75 hours per unit will be required to achieve a profit of Rs. 25000		

Revised Budget

Number of units sold		12000
	Rs.	Rs.
Sales price per unit		32
Variable cost per unit:		
Material	8	
Direct labour (1.75 hrs × Rs. 4)	7	
Variable overhead (1.75 hrs × Rs. 0.50)	0.875	15.875
Contribution per unit		16.125
Budgeted contribution (12000 × Rs. 16.125 (A))		193500
Budgeted fixed costs (140000 +28500) (B)		168500
Budgeted profit (A-B)		**25000**

4)

(a)

In an inflationary economy, prices rise rapidly. Holding large inventories will affect the inventory carrying cost including interest on funds blocked. However, there are other risks like obsolescence, deterioration in quality, and limited shelf-life in case of certain Materials etc. In addition to these risks, cheaper substitutes may be available at a later date. New sources of supply may be available at competitive rate or else price may fall. Hence speculation should be avoided.

The funds so blocked may be invested for expansion or diversification, which may result into higher profitability than the benefit arising from holding large inventory. Hence normal level of inventory may be held to avoid stock-out leading to loss of production.
In view of above points all inventory control techniques may be applied for deciding the amount to be invested in inventory. Inflationary economy is one factor. There are several other considerations for deciding the quantum of inventory.

(**b)** ABC is an accounting methodology that assigns costs to activities rather than products and services. This enables resources and overhead costs to be more accurately assigned to products and services that consume them when compared to traditional methods where either labour or machine hrs are considered as absorption basis over cost centers. In order to correctly associate costs with products and services, ABC assigns cost to activities based on their resources. It then assigns cost to 'Cost objects', such as products and customers, based on their use of activities. ABC can track the flow of activities in organization by creating a link between the activity and the cost objects.

ABC supports corporate strategy in many ways such as:

- ABC system can effectively support the management by furnishing data, at the operational level and strategic level. Accurate product costing will help the management to compare the profits of various customers, product lines and to decide on price strategy etc. · Information generated by ABC system can also encourage management to redesign the products.

- ABC system can change the method of evaluation of new process technologies, to reduce setup times, rationalization of plant lay out in order to reduce or lower material handling cost, improve quality etc.

- ABC system will report on the resource spending.

- ABC analysis helps managers' focus their attention and energy on improving activities and the actions allow the insights from ABC to be translated into increased profits.

- Performance base accurate feedback can be provided to cost centre managers.

- Accurate information on product costs enables better decisions to be made on pricing, marketing, product design and product mix.

(c)

1) **By the theory of learning curve**
   Yx = KXs
   here X is the cumulative number of units or lots produced, Y is the cumulative average unit time of those X units. K is the average time of the first unit or lot, s is the improvement exponent or the learning coefficient or the index of learning.
   taking log on both sides of relation (i) we have
   Yx = log K + s log X

2) **Time required for 30 units order** (when the time required for the first unit is 40 hours)

log 40 + (-0.3322) log 30	= 1.6027+(-0.322)(1.4771) = 1.6021-0.4756
	= 1.1264
anti log of 1.1264	= 13.38
hence hrs required pre unit	= 13.38
total time required per unit	= 30 units × 13.38 hours = 401.40

3) **Time required for 50 units order** (when the time req. for first unit is 40hrs)

log 40 + (-0.322) log 50 = 1.6021 +(-0.322) 1.6990 = 1.055

anti log of 1.055 = 11.35

hence hours required per unit 11.35 hours

total time required for 50 units = 11.35 hours × 50 unit = 567.5 hours

4) **Fixed overhead recovery rate per labour hour**

total labour hours (10 men × 25 days × 8 hours)	2000
less: 25% down time (in hours)	500
total effective time	1500
total fixed OH per months Rs.	7500
fixed OH recovery rate per labour hour (Rs.) [Rs. 7500 / 1500 hours]	5

(i) computation of cost per unit of the first order of 30 units	
	Rs.
Direct material (30units × Rs. 60))	1800.00
Direct labour (401.4 hours × Rs. 6)	2408.40
Variable overheads (401.4 hours × Re.1)	401.40
Fixed overheads	2007.00
Cost per unit (Rs. 6616.80 / 30units)	220.56
(ii) cost per unit, when a repeat order for 20 units is also placed	
Direct material (20 units × 60)	1200.00
Direct labour [(567.5 hours × 401.40 hours) × Rs. 6]	996.60
Variable overheads [166.1 hours × Re.1]	166.10
Fixed overheads [166.1 hours ×Rs. 5]	830.50
Total cost of 20 additional units	3193.20
Cost per unit [Rs. 3,193.20 / 20 units]	159.66
(iii) price to be quoted to yield a profit of 25% on selling price	
If selling price is Rs. 100 then profit is Rs. 25 and cost is Rs. 75	
Hence, selling price per unit = 100 / 75 × 159.66 = Rs. 212.88	

5)

(a)Scope of cost reduction in the area of works services:
The scope for cost reduction in the area of works services may be discussed as under:

I. Keeping records of consumption of power and coal to analyse the potential of cost reduction.

II. A detailed study of the influence of power factor and maximum demand upon electricity charges and avoidance of waste by power generation, etc.

III. Boiler house instrumentation as an aid to efficient utilisation of coal.

IV. Introduction of preventive maintenance plans to avoid frequent breakdown and the resultant loss of production.

V. Consideration of maintenance cost bill viz –a-viz plant replacement cost to effect long run economies.

VI. Introduction of quality control techniques to ensure the maintenance of quality of products.

VII. Study and review of clerical procedures and systems to avoid duplication of work, elimination of unnecessary reports and making effective use of the information recorded for formulating policies, planning and control.

(b) Three applications of direct costing are as follows

1) Stock valuation
2) Minimum quantity to be produced to recover pattern or mould cost.
3) close down decisions – like closing down of a department or shop

(c)

(i) Production Budget P for the second quarter

	Bags (Nos)
Budgeted sales	50,000
Add: desired closing stocks	11,000
Total requirements	61,000
Less: opening stock	15,000
Required production	46,000

(ii) Raw materials purchased budget in quantity as well as in rupees for 46,000 bags of P.

	Q kgs	**R kgs**	**Empty bags Nos**
Production requirements	2.5	7.5	1
Production needs	115000 (46000 ×2.5)	345,000 (46,000 ×7.5)	46,000 (46,000 × 1)
ADD: desired closing stock	26,000	47,000	28,000
Total requirements	141,000	392,000	74,000
LESS: opening stock	32,000	57,000	37,000
Quantity to be purchased	109,000	335,000	37,000
Cost per kg /bag	Rs. 1.20	Re. 0.20	Re. 0.80
Cost pf purchase (Rs.)	130,800	67,000	29,600

(iii) Computation of budgeted variable cost of production of one bag of P

	Rs.	**Rs.**
Raw material Q 2.5 kgs @ 1.20 P 7.5 kgs @ 0.20	3.00 1.50	 4.50
Empty bags		0.80
Direct labour (Rs. 5 ×9/60)		0.75
Variable manufacturing overheads		0.45
Variable cost of production (per bag)		6.50

(iv) Statement of budgeted net income for the second quarter

	Per bag	Total
Sale value (50000 bags) (a)	9.00	450,000
Less: variable cost		
Production cost	6.50	325,000
Admn.& selling expenses (5% of sale price)	0.45	22,500
(b)	6.95	347,500
Budgeted contribution (a-b)	2.05	102,500
Less: fixed expenses Manufacturing	 Rs. 30,000	
Admn. & selling	Rs. 25,000	55,000
Budgeted net income		47,500

6 (a): Since some of the companies have not made bids for certain routes, let us assign very high bid M for all such routes, the assignment model becomes as given below:

Bids				
	Route 1	Route 2	Route 3	Route 4
Company 1	4000	5000	M	M
Company 2	M	4000	M	4000
Company 3	3000	M	2000	M
Company 4	M	M	4000	5000

Apply assignment algorithm to the above mentioned problem.
The optimum solution is

Bids				
	Route 1	Route 2	Route 3	Route 4
Company 1	0	0	M	M
Company 2	M	0	M	0
Company 3	1000	M	0	M
Company 4	M	M	0	0

The assignment is as given below:

Company 1 ----------- Route 1 4000
Company 2 ----------- Route 2 4000
Company 3 ----------- Route 3 2000
Company 4 ----------- Route 4 5000

15,000

Thus, the minimum cost of running the four bus routes is Rs 15,000.

6 (b): Most likely time estimate = t_m = 12 weeks.

Expected duration = t_E $= \dfrac{t_o + 4t_m + t_p}{6} = 12$ weeks

Subtracting the value of tm in the above equation, we get = 24 $t_p + t_o = 24$

we are also given that standard deviation $= \dfrac{t_p - t_o}{6} = 2$ weeks

By substituting the above $t_p = 18$
$t_o = 6$

thus, optimistic time for the activity is 6 weeks and the pessimistic time estimate is 18 weeks.

6 (c): The methods commonly used to generate random numbers are not random processes. Random numbers are called pseudo-random numbers when they are generated by some deterministic process but they qualify the predetermined statistical test for randomness. The sequence of numbers generated by such process is completely determined by the input data or the first random number used for the method.

NS

TIME: 3 hours **Maximum Marks: 100**

*Question No.1 is compulsory. Answer **any four** questions from the remaining.*

1. (a) What are the conditions to be satisfied before a Certifying Authority can issue a Digital Signature Certificate? What are the duties of subscribers to Digital Signature Certificate under the IT Act, 2000? **(10 Marks)**

(b) You are appointed as a systems auditor for an organisation to carry out the audit of the program development and acquisition process. Prepare an audit framework for the said audit process. **(10 Marks)**

2. **(a)** Explain any five of the eight core principles of information security. **(10 Marks)**

(b) Explain the term CASE Tools. Describe Testing Work Bench **(10 Marks)**

3. (a) "There are many reasons why organisation's fail to meet system's development objectives"- Explain **(10 Marks)**

(b) Why is personnel training important for successful implementation of information system? What type of training to be imparted to system operator, users? **(10 Marks)**

4. (a) Explain briefly the steps involved in ERP Implementation (**10 Marks)**

(b) Discuss the various output control methods **(10 Marks)**

5. **(a)** "All businesses should assess the adequacy of the controls to protect their information system assets against fraud"- Comment.? **(10 Marks)**

(b) Distinguish between Programmed and Non-Programmed decisions **(5 Marks)**

(c) Explain briefly the sources of personnel information systems **(5 Marks)**

6. (a) How are audit trails preserved in a computerised environment? **(10 Marks)**

(b) Define and distinguish Transaction File, Master File and Reference File **(5 Marks)**

(c) Explain the terms **(5 Marks)**

i. System Entropy

ii. Open and closed systems

7. Write Short Notes on any four of the following: **(4 x 5 = 20 Marks)**

a. Systems Manual

b. Structured Walk-Through as a method of program debugging

c. Callback Devices

d. Operator intervention controls

e. Risk in end-user Development approach

PRIME ACADEMY
28th SESSION MODEL EXAM
MANAGEMENT INFORMATION AND CONTROL SYSTEMS
SUGGESSTED ANSWERS

1(a)

S.35 of the IT Act, 2000 provides that no digital signature certificate shall be granted unless the Certifying Authority is satisfied that-

(a) the applicant holds the private key corresponding to the public key to be listed in the Digital Signature Certificate;

(b) the applicant holds a private key, which is capable of creating a digital signature;

(c) the public key to be listed in the certificate can be used to verify a digital signature affixed by the private key held by the applicant:

The application is to be made in the prescribed format along with the stipulated fees.

S.36 also states that while issuing a digital signature certificate, the CA should certify that is has complied with the provisions of the Act , rules & regulations and also with the other conditions mentioned in the digital signature certificate.

<u>Duties of Subscribers under the IT Act, 2000</u>

S.40, S.41 & S.42 deal with the duties of the subscribers.

1. **S.40 Generating key pair**

   On acceptance of the Digital Signature Certificate the subscriber shall **generate a key pair using a secure system.**

2. **S.41. Acceptance of Digital Signature Certificate**

   A subscriber shall be deemed to have accepted a Digital Signature Certificate if he publishes or authorises the publication of a Digital Signature Certificate--

   (a) to one or more persons,
   (b) in a repository, or

   Otherwise demonstrates his approval of the Digital Signature Certificate in any manner.

   By accepting a Digital Signature Certificate that subscriber certifies to all who reasonably rely on the information contained in the Digital Signature Certificate that--

   (a) the subscriber holds the private key corresponding to the public key listed in the Digital Signature Certificate and is entitled to hold the same;

   (b) all representations made by the subscriber to the certifying authority and all material relevant to the information contained in the digital signature certificate are true;

   (c) all information in the Digital Signature Certificate that is within the knowledge of the subscriber is true.

3. S.42. Control of private key

The subscriber shall take all reasonable care to retain control over his private key corresponding the public key listed in his digital signature certificate.

1(b)

Errors in program development/acquisition

↓	↓
Inadvertent program errors	Unauthorised program errors
Due to misunderstanding system Specifications or careless program.	Deliberate insertions into the programs

Both the above problems can controlled by requiring management and user authorisation , approval through testing and proper documentation

Role of IS auditor in systems development:

- Should be restricted to independent review of the systems development activities. He should not be involved in developing the system (to maintain his independence)

- During review, the auditor should gain understanding of the development procedures and **discuss the same with** management, users and IS department. He should also **review the** policies, procedures and documentation etc.

- **To test development controls :**

  - ❖ Interview managers and users
  - ❖ Examine the development approvals
  - ❖ Review minutes of development team meetings
  - ❖ Review thoroughly the **test documents** to ensure that all changes were tested before implementation
  - ❖ Review of test data and test results to see how problems were sorted out.

- Sometimes strong processing controls can compensate for inadequate development controls.(called as **compensating controls)**

If compensating processing controls relied on:

-

1. Auditor should **carry out compliance tests** like independent processing of test data. If this evidence cannot be obtained, auditor has to conclude that material weakness in internal control exists and risks of errors and frauds are unacceptably high.

2(a) EIGHT CORE PRINCIPLES OF INFORMATION SECURITY

1.	Accountability	5.	Integration
2.	Awareness	6.	Reassessment
3.	Multidisciplinary	7.	Timeliness
4.	Cost Effectiveness	8.	Societal Factors

1. Accountability

Meaning:

- It refers to **making responsibility and accountability explicit** among data owners, process owners, technology providers and users.
- This accountability **should be formalised and communicated to the respective persons.**

Issues/ points to be considered

1. Specifying as to who would **own data and information**
2. Identification of **user access to systems**
3. How activities are to be tracked used **management audit trail** (so that responsibility can be fixed for various activities)
4. Who should be assigned responsibility for **maintenance of data and information**
5. How to enable investigative and remedial procedures to **deal with a breach or attempted security breach** (**Ex:** Failed log-in attempts)

2. Awareness

Meaning:

- Awareness of risks and security measures should be created among information/data owners and process owners **who are genuinely interested to learn the existence of risks facing the organisation and the security measures taken to counter them.**

Issues/ points to be considered

1. Care should be taken to **disclose such details as would not compromise security** (i.e. giving detailed information may itself lead to a risk)
2. All **parties who have the right to know should be apprised** and not restricted to end users alone.
3. Good practice is to **build awareness as part of new employee induction/joining**
4. Awareness once created **should be maintained on a continual basis**.(i.e. it is not just a one time effort; should be periodic)

3. Multidisciplinary:

Meaning:

- Security should address **both technological and non-technological issues** (administrative, organisational, legal issues).
- Technical standards should be backed by code of practice, audit, regulatory requirements and training and education.

Issues/ points to be considered

1. The value of asset and its sensitivity to business should be identified.
2. The impact of organisational and technological changes on the administration of security should be studied
3. What are the technologies available to meet security objectives (biometrics, VPN, Encryption etc.)?
4. What are the regulatory requirements and industry standards/bench-mark as regards security issues?
5. How to manage advanced security techniques ? (this is critical since security technique if mismanaged could generate a risk. For **Ex:** if one does not know how to open/close a electronic bolt lock)

4. Cost Effectiveness:

Meaning:

- Level of security and associated costs should be compatible with the value and benefit of information .

Issues/ points to be considered

1. The dependency level on an information asset should be understood.
2. Value of data and information based upon level of confidentiality or sensitivity
3. What are the threats, how severe are they and their probability of occurrence should be understood
4. The safeguards to minimise the threats and their related costs
5. How to balance between providing a safeguard and the associated costs?

5. Integration:

Meaning:

- There should be an **internal co-ordination** of security measures, practices and procedures and **co-ordination with that of the third party service providers** so that a coherent/comprehensive system of security is created.

- It would be possible only if all related cycles of information processing, sharing and storing are covered.

Issues/ points to be considered

1. Security policy and management **should form part of overall management of the organization.**
2. Security systems should be developed concurrently with information systems or there should be harmonization / synchronisation of all security processes to provide a consistent security framework.
3. Review of interrelated systems to ensure that their security levels are compatible
4. Review of risk relating to third party on whom the organisation process depends (**Ex:** ISPs, Courier companies, BPO companies).

6. Re-assessment:

Meaning:

- The **information systems and their security requirements keep changing.** Hence **security should be reassessed periodically** to ensure that they are update and comprehensive to cover changes.

Issues/ points to be considered

1. If there is an increase in dependence on information systems, might require an updation to BCP (**Ex:** If manual accounts are converted to system based accounts, BCP should be suitably altered to provide for such changes)

2. If there is any changes to information systems & their infrastructure, might require a change in the security policy (**Ex:** If stand alone systems converted into a LAN, security policy should be modified to provide for network level security as well)

3. If there are new threats, might require better safeguards
4. New technologies provide better security

5. Change in organisational structure and legislation may require change in security levels (**Ex:** If a DBA /Network administrator is appointed, access controls should be suitably changed)

7. ***Timeliness:***

Meaning:

- Security procedures should **provide for timely monitoring and response** to attempted/real security breaches
- With use of real time systems, damage **of an attack happen rapidly** and hence **require quick reaction.**

Issues/ points to be considered

1. Present day business transactions are instantaneous and irrevocable and hence require adequate real-time response
2. **Automated tools** (like network monitors) are available for real-time and after the fact monitoring
3. Security breaches should be escalated (reported) to appropriate levels quickly to facilitate prompt action.

8. ***Societal Factors***

Meaning:

- Information systems security should be so provided **that it respects the rights and interests of others**

Issues/ points to be considered

1. Ethical use and disclosure of data and information obtained from others
2. Fair (unbiased) representation of data or information to others
3. Providing for **secure destruction of data or information that is sensitive but no longer required. Ex:** Medical records of a deceased patient.

2(b)

- CASE stands for **COMPUTER AIDED SOFTWARE ENGINEERING**
- **Software engineering** is concerned with **creation and building of software**
- Refer to **open workbenches** that evolve to **suit the needs of the system being tested**

- Some of the tools are :

S.No.	TOOL	MEANING
1.	Test manager	• **Manages the running & reporting** of program tests. • Involves **keeping track of test data, expected results, program facilities tested.**
2.	Test data generator	• **Generates test data.** This is done by selecting sample data from dbase or by using patterns to generate random data
3.	Oracle	• Generates predictions of expected results
4.	File compactor	• Compares results of program test vs. results of previous tests and reports differences
5.	Report generator	• Helps in **report definition & generation** for test results
6	Dynamic analysers	• Adds codes to a program to **keep track of number of times each statement is executed**
7.	Simulators	• **Ex:** Target simulation, user interface simulators, I/O simulators etc.

3(a) Some reasons which can be attributed for failure of systems development objective are:

1. **Lack of senior management effort and involvement:**

- Developers and users watch as to which projects are getting senior manager attention. They would shift focus from projects they feel is not getting the required attention of top management.

- Also it is the top management which commits resources to the projects and controls its progress.

2. **Shifting user needs** (called as **scope creep- due to lack of software baselining)**

- User requirements for information systems keep changing. More changes imply more requests for systems development and more development projects.

- Also if changes occur during development effort, there would be no baseline and developers find it very difficult to provide for every change request.

Ex: Say a accounts software is in the process of development. A user request comes asking for additional report generation not stated in earlier requirement specification. When this development is being done another user may come with further requests and so on, there is no end to it.

3. **Development of unstructured or strategic systems.**

- The requirements, specification and objectives of strategic systems are difficult to define and hence it would be difficult to determine if development effort is successful or not.(**Ex:** Expert Systems)

4. **New technologies**

- When management tries to leverage new technology to its competitive advantage, it may face a problem that personnel are not familiar with the technology.

Ex: An organisation may want to achieve good results by implementing an ERP package, but may face a problem if users' do not know how to use the package.

5. **Lack of standard project management and systems development methodologies.**

- Lack of formal project management methodologies makes it difficult to stick to time schedules/budget schedules.

6. **Over-worked or under-trained development efforts.**

- Systems development team is over-worked due to constant requests

- Most of the company's do not invest in employee training and hence the employees are not up-date on current technologies.

7. **Resistance to change**

- Any development effort is countered by resistance to change.
- If employees perceive that as a result of business process re-engineering their power position will be affected or that there may be "down-sizing/retrenchment" they will work against the development effort.

Example: When computerisation was introduced in banks, in the early stages it faced lot of resistance from employee unions who felt it would adversely affect their job security.

8. **Lack of user participation**

- If users are not involved in the development efforts, they may not feel responsible for the success of the projects. Also there may be resistance to change.

- Hence user involvement is critical to the success of the project.

9. **Inadequate testing and user training.**

- If new systems are not tested properly, they may not meet the business objectives. Also it may give rise to control risks.

End user training on the new system is critical since any system is as effective as the user who uses it.

3(b) Importance of training

- A system can succeed or fail depending on how it is operated or used. Hence quality of training received by various personnel (systems operators and other users) decides the success or failure of the implementation effort.

(**Ex:** An ERP package's success depends on how well the end users are trained in its usage and maintenance)

How is training imparted? : Training is imparted through classes and through hands-on learning techniques for both hardware and software.

Who are the people to be trained ?: Training should be imparted to :

SYSTEMS OPERATORS   END USERS

Training of systems operators

- System operators are responsible for keeping equipment running + providing support services.
- Training should cover all types of operations ; both routine and extra-ordinary.
- Areas of training should include :
  - How to switch on a new equipment
  - What are the normal operations of the new system
  - What are the common malfunctioning/problems that might arise, how to recognise them and what action is to be taken **(trouble shooting).**
  - Who are the contact persons in case of unusual problems, how to get in touch with them (**Ex:** Vendor help desk number etc.)

Training of users

- It may involve **use of equipment** i.e. how to operate the system.
- They may be trained in **trouble-shooting.** This involves identification as to whether a problem is caused due to software or is it a hardware problem.
- They are also trained in **data handling.** This includes data editing, data coding, designing queries and deleting records.

Users are trained in **system maintenance activities** like preparing disks, loading papers in printers and changing printer cartridges/ribbons.

4(a) Steps in ERP implementation (Each step to be explained in brief)

i. Identifying needs for implementing ERP package
ii. Evaluation of the present/existing business condition(called as "As is" condition)
iii. Deciding on the desired/expected condition (called as "Would be" condition after ERP implementation)
iv. Reengineering business processes (BPR) to achieved desired results
v. Evaluation of the various ERP packages- to assess their suitability.
vi. Deciding on a suitable ERP
vii. Installing the required hardware and networks for the selected ERP
viii. Deciding on the implementation consultants who would assist in the implementation efforts.

4(b)

Meaning : Refers to controls that ensure that system outputs are not:

- ❖ Lost
- ❖ Misdirected
- ❖ Corrupted
- ❖ Privacy is not violated

Ex: If the cheques issued by a company are lost, it may loose its credibility. If patient medical records are disclosed , may result in legal liability.

Types of controls to implement

Depends on type of processing used. Batch processing systems are more susceptible to exposures and hence require greater degree of control than real-time systems.

Controls over batch-processing outputs

Two broad classifications of controls are :

Tape & Disk output controls

Output control for printed output

Verification of

Distribution Procedure for Output

of outputs acting on exceptions

1. Tape & Disk Output controls

- Computer outputs on files /tapes not visible to human eye ,unlike printed outputs. Hence require controls to ensure accuracy of encoding / writing of information.

Some **examples** of controls:

a. **Hardware controls** like parity bit and software controls like check digits can be carried along with information output. This ensures that no data loss occurs in transmission.

b. Echo check:

System writes/records on to a disk /tape

⇩

Compared with initial output

If both are identical signals that recording has occurred correctly

If there is any variation, implies that some hardware error has occurred

A second write attempt is initiated

Notifies computer operator for alternate action

c. <u>File labels:</u>

- Involves updating of information in trailer records to reflect new status of the file.

- **Ex:** The number of logical records / physical records in the file should be updated in the trailer record. This would be used as a processing control when file later used for input.

- File retention date should be carefully checked by the program. It should be updated if need to reflect a longer retention period.

2. Controls over printed output

A. Verification of output:

- It is based on the relationship of the output bears to the input and the processing that is carried out.
- Outputs can be of three types :

  i. Outputs directly related to inputs
  ii. Outputs indirectly related to inputs
  iii. Exception reports.

i. Outputs directly related to inputs

These can be of two types:

Outputs identical to the inputs

Usually results from updating or creating files & takes the form of lists or documents

Ex: List of purchase invoices

Output in part identical with input+ additional standard information

Ex: Payroll produced from clock rates and rates of pay

ii. Outputs indirectly related to input:

These would include output generated by programs taking into account:

a. Current input data
b. Previous or latest input data
c. All input for a given period of time

How are these outputs controlled? These outputs are verified manually using cumulative controls established over the input (**Ex:** Control totals) and placing emphasis on correct functioning of computer programs.

iii. Exception reports:

- Refers to variations thrown out by the system, when on scrutiny of input data / master files , conditions / validations are not satisfied. (**Ex:** Overtime hours total exceeding the maximum allowable hours)

- It may not be practicable to verify exceptional reports with control totals. It depends on correct functioning of the computer programs.

B. Distribution of output:

If user department checks the controls and acts on the output

Will know if it has received all the outputs

If one department checks reports controls and a different department uses the output

Procedures should be in place to ensure that user department receives all output

This will be enforced by usage of output registers / sequential nos.

C. Procedure for acting on exception reports

- Exceptional reports provide information for important control functions.

- A high degree of control is required over investigation of the exception reports and the resulting action taken. Independent review to be done to ensure that exceptional items are investigated and prompt action taken.

Controlling real-time systems-output

- Real-time systems direct their output to the end-users computer screens, printers etc.

- This reduces the number of intermediaries in the distribution channel and hence reduces the associated risks and exposures.

- Primary threat to real-time system outputs are attack on the communication channel that may lead to data interception, corruption or destruction.

- Primary sources of threats are :

  1. Failure of networking equipments (like switches, bridges, hubs, routers)

Subversive threats where an attacker intercepting message as it moves over the communication channels.

5(a)

a. Companies are becoming increasingly dependent on computers either stand alone or networked.

b. Companies have started subscribing to **electronic payment systems.** **Ex**: ECS, Credit card payments etc.

c. With the growth of E-Commerce, more systems on the internet and hence a higher risks of hacking

How are computer frauds different from other conventional frauds?

- **Easily hidden & Hard to find:** Unlike conventional frauds, there may be no recognizable audit trail & frauds are hidden in enormous volumes of data.

- **Evidence hard to find / difficult to legally prove:** In computer frauds, evidence are hard to find and difficult to prove as per relevant statutes .

- **Easily committed and may not be obvious:** It involves manipulation of invisible data. Just a few key strokes may be needed, with remote access this problem is increased (as we cannot physically see a person committing fraud).

Also with increase in media capacity, huge amounts of data can be written within a short time. This increases the speed of fraud.

5 (b)

i. Programmed decisions:

- **Meaning**: Refer to decisions which are made on problems and situations by referring to predetermined set of precedents, procedures, techniques and rules.
- **Characteristic:** Well-structured in advance and time-tested for validity, consistent over situations and time.
- When a problem/issue requires decision making, the relevant pre-determined rule/ procedure applied and hence decision arrived at.

- Such decisions are made in respect of familiar, routine, recurring problems which are amenable to structured solutions by applying well-known operating procedures.

- Organisations create a repository/collection of such rules and procedures based on manager's previous experience and familiarity.

  Note: Structured/ programmed decision does not necessarily mean simple problems. Organisations can also solve complex problems through structured decisions.

ii. Non- programmed decisions:

- **Meaning**: Decisions made on situations and problems which are novel and non-repetitive and about which not much information is available.
- They are non-programmed implying that they are not made by applying any standard procedures, rules or guidelines.
- They are solved by using the managerial intelligence, experience and judgment
- No single best solution may be available as the decision environment is uncertain. The solutions and decisions may be unique or unusual.

Note: In real business situations most of the decisions share a feature of programmed and non-programmed decisions

5(c) Sources of Personnel Information:

Majority of personnel information is generated in the accounting information system through payroll, human resource accounting and cost estimation for wages negotiations.

Payroll processing: Such systems take inputs from swipe card data, job tickets and clock cards. Some inputs help mapping an employee service to particular project/department for better cost allocation.

The payroll system generates some outputs like pay slips, pay cheques, absenteeism report, overtime reports analysis, total man hours worked. Such statistical analysis provides basis for measuring departmental efficiencies.

Cost estimation for wage negotiations:

This involves decisions on various fronts like pay hike, paid holidays, overtime rates and employee benefit contributions.

The personnel department provides data in the form of personnel files and job specifications. The personnel files would contain information about educational background, past experience, state of health and medical history and physical traits . The job specification details the requirement for each job in terms of training and experience.

Another source of information are departmental heads/supervisors who are in a position to evaluate the performance of their team members based on parameters like personality, attitude, character, leadership and group working ability.

External source of personnel information include manpower agencies, labour unions, government placement cells and HR Consulting firms.

6(a)

1. Preservation of audit trail is an important objective of the process control.
2. In manual systems , every transaction can be traced from its source to its destination
3. In computerised environment, audit trails are fragmented and difficult to follow.

   Hence every operation should be documented.

Methods of preserving audit trails in a computerised environment

S. No.	***Technique***	***Meaning***
1.	Transaction logs	• Every successfully processed transaction should be logged. This acts as a journal • Reasons for creating transaction logs : 1. Acts as a permanent record of successfully processed information. 2. Not all records in the validated transaction file are processed → the rejected entries are placed in an error file **Transaction log records + Records in error file = Total number of records in a batch.**
2.	Transaction listing	• System should print a hard copy of the transaction listing of all successful transactions. It is given to appropriate users for reconciliation with the inputs.
3.	Log of automatic transactions	• Some transactions are triggered internally by the system (**Ex:** ERP package placing purchase orders if inventory falls below safety stock levels , requires no manual intervention) • All such internally generated transactions should be placed in a transaction log to provide for audit trail.
4.	Listing of Automatic transactions	• End user should receive a detailed listing of all internally generated transactions. This acts as a control over automatically generated transactions (**Ex:** at the end of the day, the purchase department may generate a listing of the automatically generated purchase orders to see if it is in order)
5.	Unique transaction identifiers	• Refers to unique numbers given to each transaction to enable tracing it in a large database of thousands / millions of records. • In systems using physical source documents - the source document number can be assigned to transactions • In real time systems – where no source documents exist. System should generate a unique number for every transaction.
6.	Error listing	• Listing of errors are given to users. This helps in error correction and resubmission.

6(b) Transaction Files: These are files which represent collection of transaction inputs. These are only of temporary interest to the management. They are important only for audit trail purposes. Ex: Sales journal data

Master File : These are files which are relatively permanent of nature. These are of interest to the management. Ex: Customer Account

Reference file/ table file: These refer to the various look-up files like master price list, tax rates, customer codes etc. They are necessary for data processing.

6(c)

i. System Entropy:

Entropy refers to a process of degeneration/degradation of systems. Entropy prevented through inputs to repair, replenish and maintain systems. Such maintenance inputs are called as **"Negative Entropy"**

ii. Open and closed systems

Open Systems:

Interacts with the external environment, receives input and gives output. Tends to adapt to changes in external environment for survival and growth

Closed Systems:

- Self contained
- Donot interact with environment
- Tend to degenerate

7: a. Systems Manual :

The deliverable of the Design phase is a document containing description of the activities to be carried out with diagrammatic representations like flowcharts. This document is called as systems manual/job specification manual.

Contents of a Systems Manual

- An overview of the existing system in place
- Information and process flows of the existing system
- The outputs and the intended recipients of the existing system
- A description of the proposed system
- Data and process flows of the proposed system
- Outputs and departments for which they are intended
- Input layout and departments responsible for various inputs
- Description of the various files to be maintained- temporary files, permanent files etc. and the contents of each file
- A program listing which would constitute the new system

- Estimates as regards the probable time involved in development (expressed in terms of computer hours, man days etc.)
- Proposed controls and audit trails to be enabled in the new system

b. Structured Walk-Through as a method of Program Debugging

Meaning: It is the **mental execution** of the program by the programming team. (Team may include programmers other than those who have developed the program)

How is structured walkthrough done?

The programming team going to do the walkthrough gets a basic idea of the program by examining the source text

⇩

Then an mental execution of the program covering all its logical path (branches / menus of the program)

⇩

Any errors surfacing in a logical path is noted

⇩

Interface of the module with other modules – either for input or for output is examined

⇩

All errors are consolidated and then given to the programmer(s) who have written the program (called as author of the program)

Ex: A group of programmers carrying out a structured walkthrough of the income-tax module of payroll software – first get an idea about the program by looking at the source code text

⇩

Then do an <u>mental execution</u> of the program ➔ what happens if a salary of a person is in the range 0 – 1,00,000, > 1,50,000/- etc., may find an error that program does not provide for tax calculation when salary is exactly 1,50,000/- (at the boundary of class intervals)

⇩

Such errors are noted

⇩

Check for interaction with HR module for input and accounts module for output ➔ errors like debit/credit to wrong general ledger etc., if any are noted.

⇩

All errors are consolidated ➔ given to author of the program for necessary correction

Advantages of structured walkthroughs:

1. **Many errors in program logic are identified** even before testing is carried out.

2. Programmers other than those who developed the program become familiar with the working of the system. This helps in case any maintenance activity is to be carried out in future.

3. While checking interface with other modules, some errors in those modules may also surface and be corrected.

c. Callback Devices

- They are used as a security measure typically for remote log-in (**Ex:** sales persons from different regions trying to log-into the main server at head office)

- Most important aspect of network security is to keep the intruder off and prevent entry into the LAN. It is better to be prevent unauthorised access than to impose security after he has entered the LAN.

A call -back device requires dial-in-user to enter a password and identify himself

⇩

System will then break the connection, check the user-id and password and performs an user authentication.

If the caller is authorised Call-back device dials the callers number to establish a new connection and allow access to the LAN	If the caller is not authorised Call-back device will not call back and hence he will never be allowed to enter the LAN

- Hence this method limits access only from authorised terminals or authorised telephone numbers.
- Prevents intruder from masquerading as legitimate user.

d. Operator intervention controls

- System may sometimes require operator intervention to initiate some actions like :
    - Entering control totals for a batch of records
    - Providing parameter values
    - Activating program from a different point (other than from start point) while re-entering semi-processed error records.

- Operator intervention increases chances of human errors. Hence systems with limited operator's intervention are less prone to processing error.

Operator intervention cannot be eliminated. However they can be reduced by logical derivation of parameter values, program start points etc.

e. Risks in end-user Development approach:

- With increased availability of low-cost technology like micro computers and rapid application development tools (RAD, Object Oriented Programming), it is end users who are responsible for systems development and not the EDP department.

- The systems development methodology followed by end user may differ from the formal procedures as in traditional approach.

Risks in end-user development

- **Decline in standards & controls** since in end-user development paper walk-through unlikely to be carried out and standards and policies are unlikely to be enforced with the same seriousness as done when an analyst is involved.

- **Requirement specification may not be comprehensive** as users may not have the competency as that of an analyst to capture the accurate requirement specification.

- **Reduction in quality assurance and stability of the system** due to lack of adequate requirement specification.

- **Increase in unrelated & incompatible systems** (called as lack of standardisation)

  Each department would choose their own software and hardware leading to incompatibility- i.e. system of one department would not be able to communicate with that of other. Hence management would not be able to implement corporate wide data base.

- **Difficult to access a common database** as different systems run varied applications.

DS

TIME: 3 hours **Maximum Marks: 100**

Answer ALL questions

1. Walls Ltd is engaged in the business of manufacturing of goods in India for domestic market. The audited profit and loss account for the year ended 31st March 2009 is as follows.

	Rs.			Rs.
Cost of goods sold	1,378,100		Sales	4,270,500
Office Expenses	130,000		Rent from	
Salary to employees	1,280,000		- Quarters given to works	60,000
Expenditure on scientific research	84,000		- Commercial Property (rented to a foreign company)	130,000
Bad debts	10,000		Sale proceeds of Gold	
Advertisement Expenditure	227,000		(not being stock in trade)	260,000
Travelling Expenses	320,000		Amount received from persons	
Interest	82,000		using the guest house	10,000
Advance Fringe Benefit Tax	30,000			
Income and Wealth Tax	86,400			
Sales Tax, Excise Duty and Customs duty	176,000			
Municipal Taxes				
- On quarters given to workers	16,000			
- On Commercial Property	12,000			
Repairs				
- On quarters given to workers	12,000			
- To Commercial Property	7,000			
- To Factory	10,000			
Insurance	36,000			
Land Revenue				
- On quarters given to workers	2,000			
- To Commercial Property	6,000			
Depreciation	186,000			
Other expenses	110,710			
Net Profit	529,290			
	4,730,500			**4,730,500**

Other information

1. Cost of goods sold includes the following
   (a) Goods of Rs.3,80,000 purchased from AB Ltd in which a director's wife holds 70% of capital. The same goods are purchased from market at Rs.2,86,000
   (b) Goods worth Rs.90,000 is purchased by bearer cheque

2. Salary to employees includes
   (a) Rs.30,000 of employees' contribution of which Rs.17,500 is paid within the due date
   (b) Rs.28,600 is bonus paid on 13th September 2009
   (c) Rs.40,000 paid outside India without deducting tax at source
   (d) Rs.6,100 being capital expenditure for promoting family planning amongst employees

3. Expenditure on scientific research includes Rs,30,000 being cost of land and Rs.16,000 paid to an approved National Laboratory for undertaking scientific research under an approved program.

4. Advertisement expenditure includes Rs.22,000 paid in cash

5. Out of Rs.1,60,000 being expenditure incurred on foreign tour, Rs.9,000 is incurred in Indian rupees and the balance in foreign currency. This expenditure is for an 8 day tour to Germany of which 2 days is spent for personal touring.

6. The interest includes an amount of Rs.15,000 payable to IDBI which is paid on December 6th 2009

7. The payment details of various taxes are as given below
   (a) Income / Wealth Tax – May 31st 2009
   (b) Sales Tax – December 13th 2009

8. Insurance includes a sum of Rs.4,000 paid towards the commercial building

9. Other expenses include Rs.6,000 towards repair of the guest house and also Rs.4,000 towards expenses not deductible u/s.37(1)

10. Indexed cost of acquisition of gold – Rs.2,41,000

Determine the total income of the company for the assessment year 2009-10. Substantiate your answer with suitable explanation wherever necessary.

(20 Marks)

2. (a) Mr.Vijay submitted the following information relevant for the previous year ending on March 31st 2009

Particulars	Amount – Rs.
Profit of business carried on in India	90,000
Loss of business B carried on India	(-) 30,000
Profits of Business C carried on in Tokyo (income is earned and received in Tokyo and business is controlled from Tokyo)	52,000
Loss of business D carried on in Tokyo (Though the profits are not received in India the business is controlled from Chennai)	(-) 46,000
Unabsorbed depreciation of business D	63,000
Income from property situated in India	22,000
Income from property situated in Singapore (received in Singapore)	1,92,000

Determine the income of Mr.Vijay for the assessment year 2009-10 on the assumption that he is:

(i) Resident and ordinarily resident in India

(ii) Resident but not ordinarily resident in India

(iii) Non-resident in India. **(9 Marks)**

(b) What are the powers of the authorized officer during a search proceeding. **(7 Marks)**

3. Examine the correctness of the following statements by explaining the provisions of the Income Tax Act

(a) Income arising by way of enhancement of value of agricultural produce in order to make those produces fit for market is also to be treated as agricultural income.

(b) Transfer by a subsidiary company of its assets to its parent company in a scheme of amalgamation amounts to distribution of dividend to the extent of accumulated profits under section 2(22)(a) and (c)

(c) The existence of the relationship of husband and wife at the time of transfer alone is sufficient enough to attract the clubbing provisions

(d) The deduction u/s.80QQB can be claimed by a co-author of the book assuming he satisfies all the other conditions for claiming such deduction.

(e) For the maintainability if applications pertaining to more than one year before the settlement commissioner u/s.245C, the assese has to declare an additional income of Rs.3,00,000 for each such year

(f) The Income Tax officer has the power to levy any amount as penalty without giving the opportunity of being heard

(g) The best judgment assessment of FBT is not done u/s.144 but under a separate section.

(h) Tax need not be deducted at source u/s194I on the payment of rent arrears.

(8x2=16Marks)

4. (a) Write short notes on any **two** of the following

(i) Section 10BA Special Provisions in respect of export of certain articles or things
(ii) Section 47A – Withdrawal of exemption
(iii) Section 94 – Avoidance of tax by certain transactions in securities

(2 x 4 = 8 Marks)

(b) Image Limited gives the following particulars for the previous year 2008-09 for you t compute the interest if any payable u/s.115WJ

Particulars	**Amount – Rs.**
Advance tax paid on June 10th 2008	1,56,000
Advance tax paid on September 12th 2008	2,50,000
Advance tax paid on December 9th 2008	15,000
Advance tax paid on March 13th 2009	20,000
Advance tax paid on March 27th 2009	25,000
Tax liability as per return of Fringe Benefit Tax	11,15,270
Tax liability as per assessment order u/s.115WE(2)	16,10,780

(5 Marks)

(c) Mr.John sublets his property taken on rent to Oswal Ltd. The property is sublet along with furniture and fixtures and Mr.John receives the following amounts as consideration for the subletting during the financial year 2008-09

Arrears of rent for the period 01.09.2004 to 31.03.2005	- Rs. 70,000
Rent for the period 01.04.2008 to 31.03.2009	- Rs.1,20,000
Furniture hire charges for the period 01.04.2008 to 31.03.2009	- Rs. 12,000
Non-Refundable deposit received during the year	- Rs. 50,000

What is the liability of Oswal Ltd for deduction of tax at source?

(3 Marks)

5. (a) Discuss:

(i) Explanation 1 to section 32(1) provides for depreciation on building not owned by the assessee but in respect of which the assessee holds a lease or other rights of occupancy. What is the meaning of "Other Rights" in this context and will this include tenancy rights?

(ii) The assessee has inherited a property from his father during the previous year 2002-03. The property was originally acquired by assessee's father in the previous year 1993-04. Is the assessee right in claiming that he would index the cost from 1993-04 at the time of sale?

(2 x 2 = 4 Marks)

(b) As assessment was completed by the assessing officer u/s.143(3) on the basis of the return submitted and other information furnished by the assessee. The assessing officer accepted the cost of land after waiting for a reasonable period for report of the valuation officer to whom a reference was made. Subsequent to receiving the valuation report it is revealed that there is a variation of Rs.3 lakhs. On the basis of this valuation report the Commissioner issued a notice u/s.263 to set aside the completed assessment. Justify the action of the Commissioner.

(3 Marks)

(c) Elaborate the meaning of Advance Ruling under the Income Tax Act. **(3 Marks)**

(d) Sam Traders is a partnership firm consisting of the father and three major sons. The partnership deed provided that after the death of father the business shall be continued by the sons, subject to the condition that the firm shall pay 25% of the profits to the mother. Father died in March 2008. In the previous year ending 31st Mach 2009 the reconstituted firm paid Rs.50,000 (equivalent to 25% of the profits) to the mother and claimed the amount as deduction from its income. Discuss the validity of the following claims. **(3 Marks)**

(e). Compute the Book Profit of Zee Ltd with the following information given for the year ended March 31st 2009

Net Profit of the company – Rs.14,56,500

Credit side of the Profit & Loss account includes

Sale Proceeds (Domestic sales – Rs.22,23,900. Sale proceeds (Export sales) – Rs.5,76,100. Amount withdrawn from general reserve – Rs.2,00,000. Amount withdrawn from revaluation reserve – Rs.1,50,000.

Debit side of the Profit & Loss account includes

Depreciation (Normal) – Rs.6,16,000. Depreciation (due to revaluation) – Rs.2,70,000. Salaries and wages – Rs.2,10,000. FBT – Rs.10,000. Income Tax – Rs.3,50,000. Customs duty (not yet paid) – Rs.17,500. Proposed dividend – Rs.60,000. Consultation fee paid – Rs.21,000. Other Expenses – Rs.1,39,000

(3 Marks)

6 **(a).** Mr.Sudhakar, a person of Indian origin was working in London from 1992. He returned to India for permanent settlement during May 2007 when he remitted money to India. Following particulars are furnished for the valuation date 31st March 2009. You are required to compute the taxable wealth of Mr.Sudhakar. Substantiate the inclusion and exclusions.

Sl.No	Particulars	Amount Rs.
1	Building constructed on a freehold land and let out for 260 days. Net maintainable rent (Rs.60,000) and Market value (Excess of unbuilt area over specified are is 20% of the aggregate area)	Rs.20,00,000

2	Jewelry (i) Bought in February 2007 out of money remitted to India from London (ii) Purchased in March 2002	 Rs.6,00,000 Rs.1,50,000
3	Motor car used in business of running them on hire	Rs.4,00,000
4	Value of interest in urban land held by a firm in which he is partner	Rs.7,00,000
5	Bonds held in companies	Rs.2,50,000
6	Vacant plot of 450 sq.mts (purchased on December 2001) market value	Rs.9,00,000
7	Urban land purchased in the year 2006 out of withdrawal from NRE account	Rs,10,00,000
8	Cash in hand (Out of sale proceeds of agricultural land)	Rs.85,000
9	Shares held in Private Limited Company	Rs.3,00,000
10	Loan borrowed for sister's marriage	Rs.2,75,000

(10 Marks)

(b). Write short notes on wealth escaping assessment.

(3 Marks)

(c). Mr.Rajan is a member of a co-operative society and he is allotted a house under the house building scheme. During the previous year 2008-09, Mr.Rajan transfers his membership to his brother. Discuss the taxability of the property in the hands of Mr.Rajan for the assessment year 2009-10.

(3 Marks)

PRIME ACADEMY
28th SESSION MODEL EXAM
DIRECT TAXES
SUGGESSTED ANSWERS

1.

Particulars	**Amount – Rs.**
Net profit as per Profit and Loss account	5,29,290
Adjustments	
Advance Fringe Benefit Tax	(+) 30,000
Income Tax and Wealth Tax	(+) 86,400
Excess cost of purchasing goods from AB Ltd (not allowed u/s.40A(2)	(+) 94,000
Payment of Rs.90,000 by bearer cheque (i.e.100% of Rs.90,000)	(+) 90,000
Employees contribution to PF not paid within due date (treated as income)	(+) 12,500
Salary paid outside India without deducting tax at source (disallowed by virtue of section 40(a)	(+) 40,000
Capital expenditure on family planning (1/5th is deductible over a period of 5 years	(+) 4,880
Cost of land (not deductible u/s.35)	(+) 30,000
Payment to approved National Laboratory (1.25 of Rs.16,000)	(-) 4,000
Advertisement expenditure – (100% disallowed)	(+) 22,000
Travelling expenses disallowed – (6/8 * Rs.1,60,000) = Rs.1,20,000. Hence amount disallowed Rs.1,60,000 less Rs.1,20,000	(+) 1,20,000
The interest payable to IDBI paid after the due date	(+) 15,000
Sales Tax paid after the due date for furnishing the return	(+) 6,000
Municipal Taxes on commercial property given on rent	(+) 12,000
Repairs of commercial property given on rent	(+) 7,000
Insurance on commercial property given on rent	(+) 4,000
Land revenue paid on commercial property given on rent	(+) 6,000
Expenses not deductible u/s.37(1)	(+) 4,000
Rent on property given on rent to foreign company	(-) 1,30,000
Sale proceeds of Gold	(-) 2,60,000
Income under the head "Profits and Gains from business or Profession" – (A)	**7,19,070**

Income from House Property	**Amount – Rs.**
Gross annual value (being rent of commercial property)	1,30,000
Less : Municipal Taxes	12,000
Net Annual Value	1,18,000
Less : Deduction u/s.24	
Standard Deduction (30% of Rs.1,18,000)	35,400
Income from House Property – (B)	**82,600**

Capital Gains	**Amount – Rs.**
Sale proceeds of Gold	2,60,000
Less : Indexed cost of acquisition	2,41,000
Long Term Capital Gains – (C)	**19,000**

Gross Total Income – (A + B + C)	Rs.8,20,670
Less : Deduction u/ch. VIA	Rs. Nil

Total Income	Rs.8,20,670
	=========

2.

Particulars	Resident and ordinarily resident Rs.	Resident but not ordinarily resident Rs.	Non-resident Rs.
Business Income			
Business A	90,000	90,000	90,000
Business B	(-) 30,000	(-) 30,000	(-) 30,000
Business C – Note 1	52,000	Nil	Nil
Business D – Note 2	(-) 46,000	(-) 46,000	Nil
Unabsorbed depreciation of Business D – Note 2	(-) 63,000	(-) 63,000	Nil
Business Income/Loss	**3000**	**(-) 49,000**	**60,000**
Income from property situated in India	22,000	22,000	22,000
Income from property situated in Singapore	1,92,000	Nil	Nil
Gross Total Income	**2,17,000**	**(-) 27,000**	**82,000**
Less : Deduction under chapter VIA	Nil	Nil	Nil
Total Income	**2,17,000**	**(-) 27,000****	**82,000**

Note 1 – U/s.5 of the Income Tax Act incidence of tax depends on the both the residential status as well as the place nad time of the accrual or receipt of the income. In the given case the income from business C is earned and received in Tokyo and the business is also controlled from Tokyo. Hence the income is taxable only in the case of resident and ordinarily resident in India

Note 2 – The income not received in India though the business is controlled from India is not taxable in the hands of non-resident. Hence any loss arising from such business is also not allowed to be set-off. Similar treatment is applicable for unabsorbed depreciation also.

** The loss of Rs.27,000 will be carried forward.

2(b)

The powers exercisable by an authorised officer are:

1. Enter and search any building, place, vessel, vehicle or aircraft where he has reason to suspect that books of accounts or other documents, money, bullion, jewelry or other valuable article or thing is kept.

2. Break open the lock of any door, box, locker, safe and admiral or other receptacle for exercising the powers conferred in (1) above where the keys thereof are not available.

3. Search any person who has got out of or is about to get into, or is in the building, place, vessel, vehicle or aircraft if the authorised officer has reason to suspect that such person has secreted about his person any such books of accounts or other documents, money, bullion, jewellery or other valuable article or thing.

4. Require any person who is found to be in possession or control of any books of account or other documents maintained in the form of electronic record to afford the necessary facility to inspect such books of accounts or other documents.

5. Seize (including constructive seizure) any such books of accounts, other documents, money, bullion, jewellery or other valuable article or thing not being stock in trade found as a result of such search.

6. Place marks of identification on any books of accounts or other documents or make, or cause to be made, extracts or copies therefrom.

7. Make an inventory of any such money, bullion, jewellery or other valuable article or thing.

8. Examine on oath any person who is found in possession or control of any books of accounts, documents, valuable article or thing etc.

3.

(a) This statement is correct. Sometimes it becomes difficult to find ready market of the crop as harvested. In order to make the produce a commodity which is saleable it becomes necessary to perform some kind of process on the produce. The income arising by way of enhancement of value of such produce by performing such process to make the raw produce fit for market is also agricultural income. However the following conditions must be satisfied

(i) The process must be one which is ordinarily employed by a cultivator or receiver of rent in-kind and

(ii) The process must be applied to render the produce fit to be taken to market.

(b) This statement is correct. Transfer by a subsidiary company of its assets to its parent company in a scheme of amalgamation amounts to distribution of dividend to the extent of accumulated profits under section 2(22)(a) and (c)

(c) This statement is not correct. Existence of relationship of husband and wife is mandatory both at the time of transfer and at the time when the income is accrued. So any transfer which happen before marriage will not attract clubbing provisions.

(d) This statement is correct. The deduction u/s.80QQB is available even to the co-author or the joint author of the book. The conditions to be satisfied are

(i) The book authored should be a work of literary, artistic or scientific nature.
(ii) The tax payer is a resident in India
(iii) The tax payer's income includes the income of royalty or copy right fees or lump sum consideration received for transfer of copy right in a book.
(iv) The tax payer should obtain a certificate in Form No.10CCD.

(e) This statement is not correct. For the maintainability of applications pertaining to more than one year before the settlement commissioner u/s.245C, it is sufficient if the assessee declares an additional income of Rs.3,00,000 for all the years put together

(f) This statement is incorrect. Under section 274 no order imposing penalty shall be made unless the assessee has been heard or has been given a reasonable opportunity of being hear. Further the income tax officer cannot pass a penalty order for an amount exceeding a sum of rupees Ten Thousand except with the prior approval of the Joint Commissioner of Income Tax.

(g) This statement is correct**.** A best judgment assessment is contemplated by section 115WF where there is a failure on the part of the assessee to furnish a return of income u/s.115WD either voluntarily (whether belated or revised or otherwise) or in response to a notice u/s.115WD(2). Best judgment assessment is also contemplated for a failure to comply with a notice u/s.115WE(2) or for a failure to comply with a direction of special audit u/s.142(2A). Apart from the fact that section 115WL specifically provides that the other provisions of the Act shall in so far as may be apply to an assessment under this Chapter, the fact that section 115WF provides for a best judgment assessment for failure to comply with a direction of special audit also makes it clear that a special audit can be directed even with regard to completing an assessment of fringe benefits. However, it is felt that where a special audit is directed in the course of assessment of income, a non compliance thereof cannot lead to a best judgment assessment of fringe benefits. Section 115WF also provides that an assessment under this section cannot be made unless a show cause has been given to the assessee except where a notice u/s.115WD has already been issued prior to making the assessment. Though the language used is that a best judgment assessment can be made without giving the assessee an opportunity to show cause in a case where a notice u/s.115WD(2) has been issued, it is felt that no such order can be made without the valid service of the notice u/s.115WD(2). Of course if an opportunity is to be given, the service of the notice u/s.115WD(2) need not be proved. It may be noted that like in section 144 there is no express provision for refund where an assessment is made u/s.115WF.

(h) The statement is incorrect. Section 194I does not make a any distinction between rent and arrears of rent. Hence the arrears of rent whether paid or credited to the account of the payee is liable for tax deduction at source.

4. (a)

(i) Section 10BA Special Provisions in respect of export of certain articles or things

Nature and Period of Deductions
Deduction is available in respect of Profits and Gains derived by the assessee from such Industrial Undertaking. No deduction however can be claimed under this section beyond the assessment year 2009-2010

Quantum of Deduction
Profits derived by the undertaking x Export Turnover of the undertaking / Total Turnover of the undertaking

Conditions Prescribed
The Industrial Undertaking to be eligible for deduction under sections 10A and 10B should satisfy the following conditions

1. It should not be formed by splitting up or the reconstruction of a business already in existence.

2. It should not be formed by the transfer to a new business of machinery or plant previously used for any purpose. The value of machinery or plant previously used for any purpose can however be upto 20% of the total value of machinery or plant of the undertaking. Machinery or plant used outside India on which depreciation has not been claimed in India will not be treated as machinery or plant previously used.

3. If manufactures or produces article or thing without the use of imported raw material

4. 90% or more of the sales is by way of export of the eligible articles or things.

5. It employs 20 or more workers during the previous year in the process of manufacture or production

6. The undertaking does not claim deduction under sections 10A or 10B

General

1. The sale proceeds of articles or things exported out of India should be received in or brought into India by the assessee in convertible foreign exchange within a period of 6 months from the end of the previous year or within such further periods as the competent authority may allow in this behalf.

2. The deduction under section 10BA shall be admissible only if the assessee furnishes along with the return of income a report in a prescribed form given by a Chartered Accountant certifying that the deduction has been claimed correctly.

3. Export turnover means the amount brought into India by the assessee in convertible foreign exchange, but does not include freight, telecommunication charges or insurance attributable to the delivery of the articles or things outside India.

4. Total turnover means the turnover as per books but does not include freight, telecommunication charges or insurance attributable to the delivery of the articles or things outside India.

(ii) Section 47A – Withdrawal of exemption

1) If tax on capital gains has been exempt U/S 47 in case of transfer of a capital asset by a holding company to its subsidiary or vice-versa, the capital gains so exempt shall be chargeable to tax in the year of transfer if:

    i) the holding company does not continue to hold the whole of the share capital of the subsidiary for a period of 8 years from the date of transfer or

    ii) The transferee company converts the capital asset into stock-in-trade within a period of 8 years from the date of transfer.

2) If the condition stipulated regarding the succession of proprietary concern or firm by the company whereby capital gain tax is not levied are not complied with, the benefits availed by the sole proprietor or the firm, as the case may be, shall be deemed to be profit and gains of the successor company chargeable to tax in the year in which the condition in section 47 is violated.

(iii) Section 94 – Avoidance of tax by certain transactions in securities

If the owner of securities sells or transfers the same and reacquires it the interest payable to the original transferee shall be deemed as the income of the original transferor. This will not apply if it can be shown that there was no avoidance of tax or that the avoidance was exceptional and not systematic and that there was no such avoidance in the three years preceding the previous year. The Assessing Officer may require the original owner to furnish details of transactions in respect of all securities in writing giving the original owner not less than 28 days to furnish particulars.

Section 94(7) provides that if

Any person buys or acquires any securities or unit within a period of three months prior to the record date; such person sells or transfer such securities or unit within a period of three months after such date; the dividend or income on such securities or unit received or receivable by such person is exempt,

then, the loss, if any, arising to him on account of such purchase and sale of securities or unit, to the extent such loss does not exceed the amount of dividend or income received or receivable on such securities or unit, shall be ignored for the purpose of computing his income chargeable to tax.

4(b)

Computation of Interest u/s.115WJ(5)

Particulars	**Amount – Rs.**
Tax paid during the assessment year 2009-10 - (a)	4,66,000
Tax liability as per assessment order – (b)	16,10,180
90% of assessed Tax - 90% of (b) = (c)	14,49,702
Short fall in tax (b) minus (a)	11,44,180
Interest u/s.115WJ(5) from 1st April 2009 to the date of order i.e. April 6th 2010 – 13 months @ 1% p.m.	**1,48,733**
Tax liability as per return of Fringe Benefit Tax – (x)	11,15,270
15% of (x)	1,67,291
Advance tax paid up to June 15th 2008	1,56,000
Short fall of first installment	11,200
Interest on short fall	**336**
45% of (x)	5,01,872
Advance tax paid up to September 15th 2008	4,06,000
Short fall of second installment	95,800
Interest on short fall	**2,874**
75% of (x)	8,36,452
Advance tax paid up to December 15th 2008	4,21,000
Short fall of third installment	4,15,400
Interest on short fall	**12,462**
100% of (x)	11,15,270
Advance tax paid up to March 15th 2008	4,41,000
Short fall of fourth installment	6,72,200
Interest on short fall	**6,742**

4(c)

Oswal Ltd is liable to deduct tax at source on the entire sum of Rs.2,52,00. CBDT vide circular No.718 dated 22nd August 1995 has clarified queries relating to deduction of tax in respect of rent payments to the effect that TDS is required on non-refundable deposits. Similarly section 194I does not make a distinction between rent and arrears of rent and hence tax has to be deducted on the arrears of rent also. The payment of furniture hire charges is done under the tenancy agreement for use of furniture and hence falls within the purview of the term rent. So this is also subject to TDS u/s.194I.

5(a)

(i) The term "Other right of occupancy" mentioned in explanation 1 to section 32(1) will mean any right similar to a lease and will certainly include tenancy rights also. It will also include rights of occupancy arising in the case of ownership flats in cooperative societies / companies / AOPs or rights arising under similar agreements or arrangements. The basic requirement will be that the right must be a right of occupancy and not any other type of right and it must be an enforceable one.

(ii) According to section 49 if the asset is acquired by an assessee by way of gift or will then the cost of acquisition will be the cost to the previous owner. Indexed cost of acquisition means an amount which bears to the cost of acquisition the same proportion as the cost inflation index for the year in which the asset is transferred bears to the cost inflation index for the **first year in which the asset was held by the assesse"** or 1st April 19881 whichever is later. Hence the assessee in the given case can index only from the year 2002-03 and not from 1993-94.

5(b) The Commissioner of Income tax u/s.263 may call for the records of any assessee and initiate the proceedings only when the order passed by the assessing officer is erroneous and prejudicial to the interest of the revenue. The word "record" used in section 263(1) would mean records as it stands at the time of examination by the Commissioner and not as it stands at the time of order passed by the assessing officer. This view was upheld by the Supreme Court in *CIT vs. Shree Manjunathesware Packing & Camphore Works (1998) 231 ITR 335*. Hence the Commissioner is not justified in issuing a notice u/s.263 on the basis of the valuation report.

5(c)

Section 245N (a) – Advance Ruling means –

(i) a determination by the Authority in relation to a transaction which has been undertaken or proposed to be undertaken by a non-resident applicant or

(ii) a determination by the authority in relation to the tax liability of non-resident arising out of a transaction which has been undertaken or proposed to be undertaken by a resident applicant with such non-resident and such determination shall include the determination of any question of law or of fact specified in the application

(iii) a determination or decision by the authority in respect of an issue relating to computation of total income which is pending before any income tax authority or the Appellate Tribunal and such determination or decision shall include the determination or decision of any question of law or of fact relating to such computation of total income

5(d) The concept of "Diversion of income at Source overriding title" is well recognized under tax laws. In the given case the amount of Rs.50,000 equivalent to 25% of share of profits paid to mother stands diverted at source by the charge in her favour created in accordance with the terms of the deed of partnership. Such an income never reaches the assessee and gets diverted to the other person. Even if the assessee receives any such income it is received only for and on behalf of the person who possesses the overriding title. *CIT vs.Nariman B Barach & Sons (1980) 130 ITR 863.* There fore in the case of Sam Traders Rs.50,000 paid to partners mother should be excluded.

5(e)

Particulars	**Amount – Rs.**
Net profit as per P&L account	14,56,500
Add	
Depreciation (Rs.6,16,000 + Rs.2,70,000)	8,86,000
Income Tax	3,50,000
Proposed Dividend	60,000
Less:	
Amount withdrawn from general reserve	(-) 2,00,000
Depreciation normal	(-) 6,16,000
Amount with drawn from revaluation reserve	(-) 1,50,000
Book profits	**17,86,500**

6(a)

Computation of Net wealth of Mr.Sudhakar

Particulars	**Amount – Rs.**
Building – Note 1	10,50,000
Jewelry – (Rs.6,00,000 + Rs.1,50,000)	7,50,000
Motor car used in business of running them on hire	4,00,000
Vacant plot of 450 sq.mts (purchased on December 2001) market value	9,00,000
Urban land purchased in the year 2006 out of withdrawal from NRE account	10,00,000
Cash in hand (Out of sale proceeds of agricultural land) – In excess of Rs.50,000	35,000
	41,35,000
Add : Deemed wealth u/s.4	
Value of interest in urban land held by a firm in which he is partner	7,00,000
Gross Wealth	**48,35,000**
Less : Exempt u/s.5	
Jewelry	6,00,000
Motor car	4,00,000
Urban land purchased in the year 2006 out of withdrawal from NRE account	10,00,000
Vacant plot	9,00,000
Net wealth	**19,35,000**

Note

1. Net maintainable rent	Rs..60,000
Capitalised assuming the property is constructed on a free Hold land (60,000 X 12.5)	Rs.7,50,000
Add : 40% of Rs.7,50,000 (since excess of unbuilt area over Specified area is 20%) premium	Rs.3,00,000

Value for wealth tax purposes	**Rs.10,50,000**
	=========

Since building is used for residential purposes for less than 300 days it is chargeable to tax.

2. Motor car used in business for running them in hire is exempt from tax.

3. Every assessee individual or HUF is entitled to avail exemption of one house or part of a house or a house plot not exceeding 500 sq.mts. Hence the plot of land measuring 450 sq.mts is exempt.

4. The urban land bought of money standing to the credit of the NRE account is exempt u/s.5(v) of the Wealth Tax Act.

5. In the case of a person of Indian origin who returns to India for permanent settlement any asset acquired out of moneys remitted in to India at any time within one year before the date of return shall qualify for exemption. Hence jewelry bought in February 2007 out of money remitted from London is exempt from wealth tax.

6(b) **Wealth escaping assessment – Section 17**

If the assessing officer has reason to believe that the net wealth chargeable to tax in respect of which any person is assessable has escaped assessment for any assessment year, he may serve a notice on such person notice requiring him to furnish a return in the prescribed form. The notice shall be issued only after recording reasons for the issue of the notice and the return shall be required to be furnished within such period as may be specified in the notice.

The assessing officer is empowered to assess or reassess such net wealth other than the net wealth which is the subject matter of any appeal reference or revision which is chargeable to tax and has escaped assessment.

6(c) Where an assessee is a member of a cooperative society for whom a house was allotted under the house building scheme and where he subsequently ceases to be the member of the society and transfers his membership to his spouse or others he could not be treated as the owner if the property. Therefore the property shall not be assessed to wealth tax in the hands of the assessee subsequent to such transfer. This is held so in the case of *Ram Saran Das Tandon vs CWT 2007 292 ITR 546 (All)*. Hence in the given case the property can not be assessed to wealth tax in the hands of Mr.Rajan.