(一) (16%) 中正製造公司某部門2月份生產報告資料如下：

產量資料：	
期初在製品（材料完成100%，加工完成50%）	16,000單位
本月開始製造	92,000單位
完成轉入次部門	
甲產品	120,000單位
乙產品	60,000單位
丙產品	10,000單位
期末在製品（材料完成100%，加工完成60%）	?
製造正常損失	?
製造非常損失	2,000單位
成本資料：	
期初在製品	
材料	$4,800
人工	508
製造費用	752
本月份	
材料	$49,200
人工	12,232
製造費用	17,868

中正公司於本月份開始投入生產單位的同時，亦加入與投入單位數相同數量之蒸餾水(假設不增加任何成本)。製造過程的末期發生損壞，其中正常損壞率為本期全部處理單位的1.5%。

甲、乙為主產品，為增進市場銷售能力，必須進一步加工處理，分別增加再加工成本$9,840及$6,360。最後售價每單位甲產品$0.70，每單位乙產品$0.60，丙為副產品，每單位售價$0.30，2月份一共出售了10,000單位之副產品，發生相關銷售費用$1,800，副產品不分攤聯合成本，其淨收入作為主產品再加工成本之減項，減除金額依售價法分攤。聯合成本分攤以分離點時之假定市價為基礎。試作：

1. 採用加權平均法編製部門生產成本報告單（請依數量資料、成本資料與成本分配三部分列示）。
2. 編製部門聯合成本分攤表。

(二) (16%) The Min-Hsiung Company has two products. Product 1 is manufactured entirely in department X. Product 2 is manufactured entirely by department Y. To produce these two products, the Min-Hsiung Company has two support departments: A (a material-handling department) and B (a power-generating department). An analysis of the work done by departments A and B in a typical period follows:

	Used by			
Supplied by	A	B	X	Y
A	-	100	250	150
B	500	-	100	400

The work done in department A is measured by the direct labor-hours of materials-handling time. The work done in department B is measured by the kilowatt-hours of power. The budgeted costs of the support departments for the coming year are as follows:

	Department A (Materials-handling)	Department B (Power Generation)
Variable indirect labor and indirect materials costs	$ 70,000	$ 10,000
Supervision	10,000	10,000
Depreciation	20,000	20,000
	$ 100,000	$ 40,000
	+Power costs	+ Materials-handling costs

The budgeted costs of the operating departments for the coming year are $1,500,000 for department X and $800,000 for department Y. Supervision costs are salary costs. Depreciation in department B is the straight-line depreciation of power-generation equipment in its 19th year of an estimated 25-year useful life; it is old, but well-maintained, equipment.

1. What are the allocations of costs of support departments A and B to operating departments X and Y using (a) the step-down method and (b) the reciprocal method?
2. An outside company has offered to supply all the power needed by the Min-Hsiung Company and to provide all the services of the present power department. The cost of this service will be $40 per kilowatt-hour of power. Should Min-Hsiung Company accept? Explain.

(三) (18%) 會資公司採行標準成本制度，本年12月份相關帳戶之餘額(未分攤差異前之標準成本)及各項生產要素成本差異如下：

直接原料，期末存貨	$12,500
在製品，期末存貨	50,000
製成品，期末存貨	150,000
銷貨成本	300,000
直接原料價格差異	32,000
直接原料數量差異	12,500
直接人工工資率差異	2,500
直接人工效率差異	12,500
實際製造費用	105,000
已分攤製造費用	85,000
銷貨收入	450,000
銷管費用	90,000

原料價格差異於購置時衡量，假設在製品、製成品及銷貨成本所含直接原料、直接人工及製造費用之標準成本的比例相同。直接原料因素佔在製品、製成品及銷貨成本期末餘額之60%，所有差異均為不利差異；本期無期初存貨，且無銷管費用差異，而變動及固定製造費用均計入存貨成本中。試作：

1. 編表列示將各項成本差異分攤至銷貨成本與存貨帳戶。
2. 編製結轉差異帳戶之會計分錄。
3. 依據下列兩種方式編製綜合損益表。
   a. 將成本差異結轉至銷貨成本。
   b. 將成本差異結轉至銷貨成本與存貨帳戶。
4. 計算製成品期末存貨（未分攤差異前）餘額所包含之直接人工成本金額。

(四)（13%）大中科技公司於2011年初成立，主要進行消費性電子產品之製造與銷售，目前的產品有三種，分別為數位相機、智慧手機與平版電腦，全部銷售至歐盟各國。在2011年底時，公司召開高階主管會議，討論下一年度的產銷計畫，並編製以下預計營運狀況表：

項目	數位相機	智慧手機	平版電腦	總計
銷售數量	15,000	35,000	20,000	80,000
產品單位售價	€100	€250	€450	
銷貨收入	€1,500,000	€8,750,000	€9,000,000	€19,250,000
單位變動成本	€50	€150	€200	
變動成本	€750,000	€5,250,000	€4,000,000	€10,000,000
固定成本				€7,770,000
營運所得				€1,480,000

假設大中公司適用的稅率為30%，請回答下列問題，需附簡要之計算過程：

1. 此三種產品之銷售組合比例不變下，請計算公司的損益兩平銷售數量。(3分)
2. 假設歐盟為了振興經濟而進行減稅方案，使公司適用稅率下修為25%，請問對上一小題的損益兩平銷售數量有何影響？(3分)
3. 不考慮第2小題之條件，假設營運長希望在下一年度的營運所得能達到€2,4050,000，則三項產品各應該銷售多少數量？(3分)
4. 不考慮第2小題之條件，假設實際上此三種產品的銷售數量分別為：數位相機10,000台、智慧手機40,000隻、平版電腦30,000台，則其營運所得為何？又在此新銷售組合下，損益兩平銷售數量有何改變？(4分)

(五)（15%）致正生物科技公司主要生產減脂茶與護肝飲兩種健康食品，過去都使用直接人工成本這單一動因來分攤間接製造費用。不過在面對競爭對手頻頻價降促銷的壓力下，對外徵詢管理顧問公司的建議，決定改以大型企業慣用的作業基礎成本制（ABC），重新評估現有產品的成本與競爭力。經過王顧問的研究分析後，發現間接製造費用中，大部分使用在安裝作業與設計作業，因此被選為新的成本庫。其餘剩下的製造費用，仍延續以前採用直接人工成本作為分攤基礎。以下是致正公司的年度生產資料表：

項目	減脂茶	護肝飲	總計
單位生產數	73,500	125	73,625
直接材料成本			
每單位	$10	$100	
總計	$735,000	$12,500	$747,500
直接人工成本	$2,910,000	$90,000	$3,000,000
安裝次數	1,500	4,500	6,000
設計時數	10,000	5,000	15,000
製造費用			
安裝相關			$2,400,000
設計相關			$1,800,000
其他			$300,000
總製造費用			$4,500,000

請回答下列問題，需附簡要之計算過程：

1. 在原本的成本制下，計算兩種產品的總成本與單位成本，單位成本部分計算取至小數以下二位（4分）。
2. 在作業基礎成本制下，計算兩種產品的總成本與單位成本，單位成本部分計算取至小數以下二位（4分）。
3. 如果致正公司採加成定價法，至少需加成20%，才能維持利潤水準。請問從原成本制轉換為作業基礎成本制後，該如何重新調整產品售價？又公司的產銷策略需如何因應？(4分)
4. 試簡述作業基礎成本制的優點，另過去在實務上的導入經驗中，作業基礎成本制的缺點為何？（3分）

(六)（12%）The Chiayi Corporation manufactures design feeling desks in its Processing Department. Direct materials are added at the initiation of the production cycle and must be bundled in single kits for each unit. Conversion costs are incurred evenly throughout the production cycle. Before inspection, some units are spoiled due to non-detectible materials defects. Inspection occurs when units are 50% converted. Spoiled units generally constitute 6% of the good units. Data for December 2011 are as follows:

WIP, beginning inventory（2011/12/1）	30,000 units
Direct materials (100% complete)	
Conversion costs (75% complete)	
Started during December	90,000 units
Completed and transferred out（2011/12/31）	86,800 units
WIP, ending inventory（2011/12/31）	26,000 units
Direct materials (100% complete)	
Conversion costs (65% complete)	

Costs for December:

WIP, beginning Inventory (2011/12/1)	
Direct materials	$ 120,000
Conversion costs	80,000
Direct materials added	240,000
Conversion costs added	320,000

【Required】(round to 2 decimal places, if necessary)

1. What is the number of total spoiled units, normal spoilages and abnormal spoilages (**hint**: ignore the period when good units pass through the inspection for the computation of spoiled units)? (6 分)
2. What is the total cost per equivalent unit and using the weighted-average method of process costing? (3 分)
3. What cost is allocated to abnormal spoilage using the weighted-average process-costing method? (3 分)

(七) (10%) Minhsiung Corporation is organized in three separate divisions (TOP, BEST and FUTURE). The three divisional managers are evaluated at year-end, and bonuses are awarded based on ROI (Return on Investment). Last year, the overall company produced a 13% return on its investment. Managers of Minhsiung's FUTURE Division recently studied an investment opportunity that would assist in the division's future growth. Relevant data follow.

	FUTURE Division	Investment Opportunity
Income	$15,600,000	$ 3,800,000
Invested capital	97,500,000	26,000,000

【Required】(round to 2 decimal places, if necessary)

1. Compute the current ROI of the FUTURE Division and the division's ROI if the investment opportunity is pursued. What is the likely reaction of Minhsiung's corporate management toward the investment? Why? (5 分)
2. Assume that Minhsiung uses residual income to evaluate performance and desires an 11% minimum return on invested capital. Compute the current residual income of the FUTURE Division and the division's residual income if the investment is made. Will divisional management likely change its attitude toward the acquisition? Why? (5 分)