Mark Scheme (Results)

Summer 2010

Information Technology
IT307 Making Projects Successful

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.

- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.

- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.

- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.

- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.

- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.

- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.

- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Section A

Question Number	Answer	Mark
1(a)	One mark for any two of: • Budget Constraint i.e. £30,000 • Supplier Constraint e.g. Central Computers Ltd, approved supplier • Time constraint e.g. Start date June 20th/ Completion August 1st • Resource Constraint e.g. IT Technicians only available in July, no disruptions to business,	(2)

Question Number	Answer	Mark
1(b)	First mark for identifying resource, second mark for associated expansion. Maximum of two marks for each item. • **People:** IT Technicians responsible for installation and configuration, site services for maintenance and furniture removal • **Equipment:** Server, computers, printers, router, network cables • **Materials:** maintenance materials, cable ties etc • **Budget / Investment:** Mancomp, Government (grant), Oaking college IT development fund	(4)

Question Number	Answer	Mark
1(c)	First mark for identifying reason, second mark for associated expansion. Maximum of two marks for each reason. • **Formal document:** solid agreement between project team and stakeholders • **Enables project planning to take place:** identifies & describes all work necessary to produce the final product, identifies features/functions included in the product, identifies resources (budget, people, equipment), identifies allocated timescale • **Improves understanding of the project:** project team/stakeholders can use to understand what is and what is not included the project, what is required to complete the project successfully	(4)

Question Number	Answer	Mark
2(a)	First mark for identifying method, second mark for associated expansion. Maximum of two marks for each method : • **Create a communication plan**: so all parties are clear of what is expected of them, identify meetings that will take place • **Identify individuals who are to be responsible for cascading information**: to ensure all parties involved receive /take part in relevant communications • **communication method** e.g. formally written, email update, tele conference, face to face meeting, regular meeting, **a** named type of meeting , with whom e.g. project manager, stakeholder, supplier	(2)

Question Number	Answer	Mark
2(b)	First mark for identifying task, second mark for associated expansion. Maximum of two marks for each task. • **Identify tasks and sub tasks**: including timescales and predecessors • **Create Gantt Chart**: software features enable creation of a project plan that enable allocation of resources to tasks, shows the overall duration of the project, shows dependencies • **Create PERT analysis**: to identify EST, LST, EFT, LFT, float, critical path	(4)

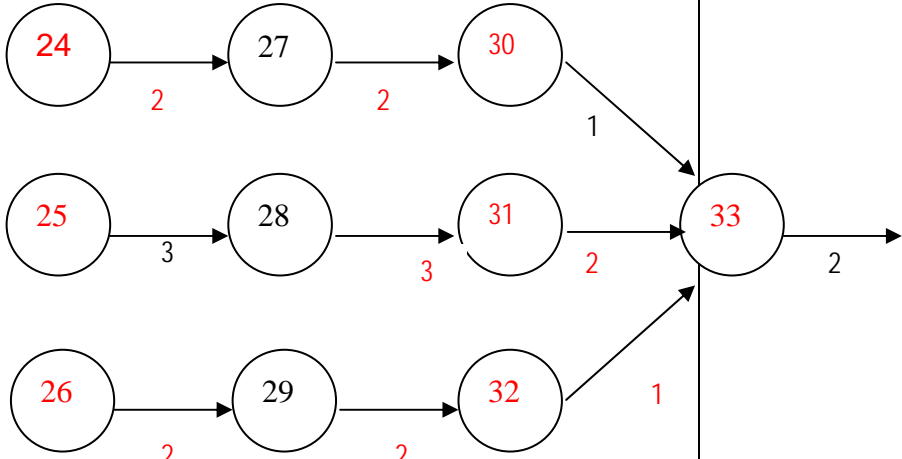| Question Number	Answer	Mark
3(a)	Any two of: • physical • technical • labour • political/social • liability • health and safety • environmental • financial • management • resources • accidental • legislative Must be a category and not an example in the category Do not accept government (TV)	(2)

Question Number	Answer	Mark
3(b)	First mark for identifying stages, second mark for associated expansion. Maximum of two marks for each process • **Identify the probability of the risk occurring:** How likely is it that the risk will occur? • **Identify the impact of the risk:** the impact to the project, if the risk does eventuate how will this impact on the project? Do not accept: • **Methods of dealing with the risk:** avoidance, precautions to minimize risk impact, accept, share, limit, transfer to 3rd party • **Cause and effect charts:** used to solve a problem once it has occurred	(4)

Question Number	Answer	Mark
4(a)	First mark for identifying loss, second mark for associated expansion. Maximum of two marks • **Delay to PC installation**: as new pc's will have to be sourced, or will have to wait for them to come into stock • **Late project completion date**: loss of reputation/business for the college if classes have to be postponed • **IT technicians may be pulled off project before completion**: as only seconded for the agreed project timescales, could have other projects to move onto • **Will have to find a different/alternative supplier**: cost implications, time implications	(2)

Question Number	Answer	Mark
4(b)	First mark for identifying reasons, second mark for associated expansion. Maximum of two marks • **Pre installation meeting carried out with technicians**: so are aware of / can prepare for installation and system configurations required • **Technicians experienced**: used to carrying out this sort of project so are competent • **Extra Hardware has been purchased for when teaching has started**: could be utilised, with enough time to purchase replacement before teaching starts	(2)

Question Number	Answer	Mark
4(c)	Any one from: • Decorators do not turn up on time • Site Services do not clear the rooms in time • Faulty equipment is delivered • Any other sensible suggestion relevant to the case study	(1)

Question Number	Answer	Mark
5(a)	First mark for identifying feature, second mark for associated expansion. Maximum of two marks for each process. **PERT analysis includes:** • **Interdependencies:** shows the relationship/dependencies between tasks • **Critical Path:** Activities that directly impact on the project end date • **Provides PM with detailed timings/Activity start and end dates:** EST, LST, EFT, LFT (do not accept duration) • **Slack/Float:** activities that have slack/float and can lend resources to critical path activities	(4)

Question Number	Answer	Mark
5(b)	**I mark for each correct answer, to a maximum of 14** 	(14)

Question Number	Answer	Mark
6(a)	Any three of: • May have to source hardware from another supplier • Hardware could be delivered late • Hardware may not be delivered at all • Order may only partially /not filled	(3)

Question Number	Answer		
6(b)	Key Points: • To make sure that the network installation task is completed on time • To prevent the start of the next task being delayed (software configuration) • To avoid the consequences of a knock on effects to subsequent tasks on the critical path • A delay at this stage could escalate and delay a critical task • To ensure that the suites are ready to be used on 1st August • Time could be taken in lieu and used at less busy times of the year so as not to impact on business operations • Minimise consequences of not opening on time e.g. Bad publicity, loss of business, unhappy staff, dissatisfied customers		
Level	**Mark**	**Descriptor**	
	0	No rewardable material	
1	1-2	Candidates produce an unstructured response, showing little if any understanding of the sequence of effects and the wider implications of a delay.	
2	3-4	Candidates attempt to produce a structured response that demonstrates some understanding of the sequence of effects and the wider implications of a delay.	
3	5-6	Candidates produce a structured, well thought out response and clearly demonstrate a good understanding of the sequence of effects and the overall consequences of a delay.	

Question Number	Answer	Mark
7	First mark for identifying item, second mark for associated expansion. Maximum of two marks for each item: **Formalisation of project success:** whether objective were achieved **Project performance:** against its original business case, scope, project plan, budget and allocated timeframes, effective communication, quality **Residual issues :** areas of work that still need action or monitoring, agreement sought from whom ever is taking these issues forward **Lessons learnt:** what would you do the same, what would you do differently based on your experiences, identifies best practices for future projects **Arrangements for Post Implementation Review (PIR)**; project team and lecturers/trainers	(6)

Section B

Question Number	Answer	Mark
8(a)	One mark for each identified point: (i) Providing the IT solution: **Oracle** OR **IT Director** (ii) Management guidance: **Celerant** (iii) Funding the project: **Scottish Water**	(3)

Question Number	Answer		
8(b)	Key Points: • Cheaper than a bespoke system • Reduced operating costs / achieved faster return on investment • Tried and tested, proven, less risk • Developed for specific processes • Ability for customisation to meet specific business needs • Fast tracked implementation • No delays whilst waiting for a bespoke system to be designed • No delays during in implementation		
Level	**Mark**	**Descriptor**	
	0	No rewardable material	
1	1-2	Candidates produce an unstructured response, showing little if any understanding of the decision to use off the shelf software	
2	3-4	Candidates attempt to produce a structured response that covers some key points and demonstrates some understanding of the decision to use off the shelf software.	
3	5-6	Candidates produce a structured, well thought out response that covers most key points and clearly demonstrate a good understanding of the decision to use off the shelf software.	

Question Number	Answer

9	**Key Points:**
	• **Planning**
	    • Research conducted:
	        o Identified customers dissatisfied with service provided
	        o Operational efficiency falling
	        o Costs rising
	    • Business change identified:
	        o Timed appointments for visits
	        o Guaranteed response time
	• **Redesign of service delivery**
	    • Three contact centres initially:
	        o Later consolidated to one
	        o To deal with customer calls
	        o Allow allocation of work to field staff
	    • Employed Celerant:
	        o Management consultancy firm
	        o To work with business analyst team and front line staff
	    • Proposed new process:
	        o Designed on paper
	• **Testing**
	        o Trialled at designated field sites
	        o With operational staff to test it would work in practice
	        o To prove that it works
	• **Installation**
	    • Software purchased after trial:
	        o To prove that it works
	        o Selected off the shelf – fast track implementation, less risky, effective solution

Level	Mark	Descriptor
	0	No rewardable material
1	1-3	Candidates produce an unstructured response, showing little if any understanding of the project. Information may be a list of one or two stages with no or little relevance to the Scottish Water project, or simple descriptions of generic project stages and tasks.
2	4-6	Candidates attempt to produce a structured response that demonstrates some understanding of the project stages and associated tasks. Includes most stages in the Scottish Water project with some associated activities
3	7-9	Candidates produce a structured, well thought out response and clearly demonstrate a good understanding of the project stages and associated tasks. Includes all stages of the Scottish Water project and most associated activities.

Question Number		Answer

10		**Key Points:**
		• **Clear understanding of clients requirements:**
		    o Significant redesign of three existing business processes
		    o Operating costs to be reduced by 40 %
		• **Clear understanding of deliverables by project team:**
		    o Business change led by business managers, rather than IT managers:
		        ▪ Increased awareness of business processes
		        ▪ Better understanding of the project aims
		• **Realistic budgets:**
		    o Use of off the shelf technology
		    o Achieved a faster return on investment
		• **Appropriate resources:**
		    o Celerant (Management consultancy firm)
		        ▪ Specific expertise
		    o Off the shelf package (Oracle) used
		        ▪ Allowed Scottish Water to quickly implement
		        ▪ Proven workable solution
		    o Transfer of process design skills transferred from Celerant to front-line staff:
		        ▪ Front line staff then led process changes
		        ▪ Tested paper based version of the proposed business processes
		        ▪ Identify what would work and improvements / problems
		• **Delivered within time frame:**
		    o Costs to be saved by March 2006
		• **Effective Communications with project team:**
		    o Ownership of project by Scottish Water employees:
		    o Secured staff support for the proposed business change
		        ▪ Staff given opportunity to develop own business processes
		    o Secured staff support for the proposed business change

Level	Mark	Descriptor
	0	No rewardable material
1	1-4	Candidates produce an unstructured response, showing little if any understanding of the key factors in the success of the project. Answers should be in context for top of the mark band
2	5-7	Candidates attempt to produce a structured response that demonstrates some understanding of the key stages in the success of the project. They mention several key points with some associated expansions
3	8-12	Candidates produce a structured, well thought out response and clearly demonstrate a good understanding of the key factors in the success of the project. They mention most key points with an associated expansion