Evaluate the information concept. model, constraints, maths, method Analyse the problem e Understanding develops A design requirement Problematic situation in your task area Understanding and Judgement of analysing the problem Define, investigate and analyse engineering problems (tasks) - Confirm that III posed - over or under specified May be outside standard or codes - a new concept you can interpret the work that is given to you into a rational engineering activity Requires detailed engineering knowledge of applicable technology area Requires judgement in decision making May have significant consequence 1.1 State how you performed or contributed in defining Group E: Undertake professional engineering problems leading to an agreed definition of the development activities sufficient to maintain and extend his or her 1.2 State how you performed or contributed in investigating competence. engineering problems including collecting, organising and evaluating information. 1.3 Describe how you performed or contributed in analysing On Time engineering problems, using conceptualisation, justified Within Budget Sethical management of projects and activities assumptions, limitations and evaluation of results. To Specification Group A - Engineering Problem Solving Design a solution Understanding and working within ECSA Code of Conduct 8. Conduct Engineering Activities ethically - Are you aware of all Develop a solution by synthesising all information you obtained ocosts, impacts and constraints the ethical practices you need to subscribe to? How do YOU act Use technologies which you have been taught or experienced Responsible Professional attitude ethically in the workplace - examples? - looking after your Have you displayed a working knowledge of methods, principles Defined in scope of ECSA Code of Ethics and assumptions? 8.1 Confirm that you are con-versant and operate in compliance with ECSA's Rules of Conduct for registered persons. 2. Design or develop solutions to engineering 2.1 Describe how you designed or developed solutions to broadly-defined engineering problems problems - How did you apply your theoretical training and studies to develop different solutions, and pick the best one? 2.2 Indicate how you systematically synthesised solutions and 8.2 State how you identified ethical problems, the affected alternative solutions or approaches to the problem by analysing designs against requirements, including costs and impacts on Judgement specific to tasks in hand outside parameters (requirements) interfacing with other disciplines 2.3 State your part in the drawing up of detailed specification requirements and design documentation for implementation to Other Technology being applied the satisfaction of the client. Take all risk factors into account Secretary Exercising judgement on wider impacts 9. Exercise sound judgement in the course of engineering Consequences of work or technologies applied activities - How did you display sound judgement by analysing all the factors your work involved, how the one affected the other, Working knowledge of interacting disciplines Group D: Exercise Judgement, take Address all affected parties Technology knowledge applicable and local knowledge eg responsibility and act ethically and what the consequences would be? Also how did you make 9.1 Within the application of your technologies and their materials available decisions on issues which were hidden - no clear evidence? nterrelationship to other disciplines and technologies, state Financial what judgement you exercised in arriving at a conclusion. Statutory Knowledge Embodied and accepted in processes, technologies, 3. Comprehend and Apply 9.2 State what factors you took into consideration bearing in methodologies or systems - where did you find the knowledge? advanced knowledge - what mind, risk, consequences in technology application and affected theoretical knowledge do you do parties. Management and logic you rely on to justify decisions that \_\_\_\_\_\_\_\_\_\_\_ 3.1 State what engineering principles, practices, technologies, including the application of BTech theory you apply in your vou take ? Show evidence of discharging responsibility on significant parts of activities 11 Outcomes practice area. Evidence of position of responsibility - delegations 3.2 Indicate your working knowledge of areas of practice that 10.1 In discharging your responsibilities for significant parts of interact with your practice area to underpin team work. one or more activities, please state what engineering, social, 10. Be responsible for making decisions - How did you accept 3.3 Describe your applied related knowledge of finance, statutory, safety and management. environment and sustainable development you took into responsibility for your own work by using theory to support your decisions. How did you seek advice from other disciplines when you were not sure or lacked experience 10.2 State what advice you sought from a responsible authority Planning activities on matters outside your area of competence Organising activities 10.3 State what academic knowledge of at least BTech level Leading activities combined with past experience you used in formulating your Controlling activities Have you demonstrated how you managed your project or part engineering project - What do you of project PROFESSIONALLY ie in a business sense derstand your role in the team to Impacts Extend over the life-cycle of the project be, and then how do you plan your 4.1 State how you managed yourself, people, work priorities. processes and resources in broadly-defined engineering work. work to ensure effective Legal issues as well as problems arising productivity? 4.2 State your role in planning, organising, leading and Direct, Indirect, short term or long term ontrolling broadly-defined engineering activities Technical or IT risks. 4.3 State your knowledge of conditions and operation of Project management risks. contractors and the ability to establish and maintain professional Organizational risks. and business relationships. 6. Recognise and address foreseeable Identify and mitigate 

Risk management Financial risks. social cultural and environmental activities Planning How do you analyse your work and External risks. foresee all the possible social and Organising Compliance Comms used in All areas of managing the project environmental impacts being made by it Leading OHASA shore and long term? How do you explain Controllina impacts to those involved? Social Impacts Group B - Managing Engineering Activities Reading and understanding Technical and other aspects of the Environmental Impacts work 6.1 Describe your ability to identify interested and affected Peers parties and their expectations in regard to interactions between Other disciplines technical, social, cultural and environmental considerations. 6.2 State what measures you have taken to mitigate the negative Stakeholder 5. Communicate clearly with others in the effects of engineering activities. Clients course of engineering activities - Relate Group C: Impacts of Engineering Activity <del>-------</del>-----how you issue clear instructions and Reports Safe use and management of MMMM guidance and report comprehensively on Projects plans Direct and indirect impacts work progress or lack of progress? Site instruction: Regulatory requirements explicit to the job All modes of communication Apply defined risk management strategies with Head Office OHASA inside and outside the workplace All legislation impacting on the job Presentations Environmental 7. Meet all legal and regulatory 5.1 Demonstrate your ability to write clear, concise, effective technical, legal and editorially correct reports. Professional requirements + health and safety in 5.2 Indicate your ability to issue clear instructions to stakeholders using appropriate language and communication skills. Safety Eaws activities - How do you identify and 5.3 State any oral presentation you have made using structure, address risk affecting your work? Are you and methods used style, language, visual aids and supporting documents aware of ALL the laws and regulations to Constitutional rights appropriate to the audience and purpose. which you should be acting responsibly? 7.1 State where you have identified applicable legal and regulatory requirements including health and safety requirements for the engineering activity. 7.2 State in what circumstances you have assisted in, or

demonstrated awareness of the selection of save and sustainable materials, components and systems and have identified risk and

applied risk management strategies.

Show how you defined the problem leading to an AGREED definition

Collect Data

Investigate the problem 
Organise Data