Section 1
Colorectal cancer

i. What is colorectal cancer?
Colorectal cancer is caused by the abnormal growth of epithelial cells which form the lining of the colon or rectum. These small growths (known as polyps) are often benign, although some have the potential to develop and become cancerous. It is estimated that up to two thirds of colorectal polyps are pre-malignant and associated with a risk of colorectal cancer. 

Screening and awareness can reduce mortality of colorectal cancer by detecting and removing polyps before they become cancerous, or by discovering the cancer at an earlier stage, where treatment has a higher success rate. However, there are often no initial symptoms and the cancer may already have spread to other parts of the body by the time the patient is diagnosed.

ii. Causes and risk factors
There are several risk factors that may increase the chance of an individual developing colorectal cancer.

Risk factors:
- Family history: A person’s risk doubles if a direct relative has previously had the disease. There is an even greater risk if more than one relative has had colorectal cancer.
- Genetics: Individuals with inherited disorders such as familial adenomatous polyposis (FAP), where an individual is prone to polyp formation, have a higher risk of developing colorectal cancer.
- Colorectal polyps or inflammatory bowel diseases: A history of polyps or inflammatory bowel disease, where the bowel is inflamed for many years, increases the risk of colorectal cancer.
- Age: Although a person can develop colorectal cancer at any age, the risk increases greatly with age. Over 90% of colorectal cases are diagnosed in patients over the age of 50.
- Lifestyle: A sedentary lifestyle is associated with a higher risk of colorectal cancer. Studies have also linked obesity, lack of exercise, smoking and excessive alcohol consumption to a greater risk of colorectal cancer.

Potential protective agents:
- Non-steroidal anti-inflammatory drugs (NSAIDs), such as aspirin, have been associated with a reduced risk of colorectal cancer. A healthy, fibre-containing diet and hormone replacement therapy in women are also possible protective factors.
‘Early-stage’ disease (stage I and II) describes a tumour that has not yet spread to the lymph nodes or other distant areas in the body. With early-stage disease there is the chance of cure if the tumour can be successfully surgically removed. When cancer spreads from the original site, affecting the lymph nodes (stage III) or other parts of the body (stage IV), treatment becomes more difficult.