1. Match the related options.
   a. (iv)  b. (iii)  c. (v)  d. (i)  e. (ii)

2. Fill in the blanks.
   a. program  b. barcode  c. drum
   d. magnetic ink  e. smart

3. Circle the correct option.
   a. (i)  b. (iii)  c. (iii)  d. (ii)  e. (ii)

4. Put a tick (✓) for the correct statements and a cross (✗) for the wrong ones.
   a. ✗  b. ✓  c. ✓  d. ✓  e. ✗

5. Answer the questions.
   a. A barcode reader shines a light beam across the barcode and measures the amount of light that is reflected back to identify the code; the dark bars reflect less light than the white spaces between them. It then translates the code into numbers and/or letters, which are input into the computer. The computer uses this information to identify the product.
   b. The main advantage of OCR technology is that it enables you to convert any type of document—whether it is a scanned paper document, a PDF file or an image captured by a digital camera—into editable and searchable data. This prevents retyping of data and makes the data entry fast and efficient.
   c. OMR is the technique of recognising a pre-specified mark made by a pencil or pen on OMR sheets. An OMR sheet is a printed form/document with boxes or circles which can be filled with a dark pencil or ink. A disadvantage of OMR is that if the boxes on OMR sheet are not properly filled or if a mark is too light, the OMR device may not be able to recognise it.
   d. A smart card looks similar to a magnetic strip card but it contains a microchip instead of a magnetic strip.
   e. A plotter is an output device used to produce hard copies of high-quality graphs and designs, such as architectural plans, business charts, construction maps and engineering drawings. There are three types of plotters: drum, flatbed and inkjet plotter.
   f. MICR refers to the technique of recognising characters printed in MICR typeface (a special font) using a magnetic ink—a special ink that contains magnetised particles of iron oxide. MICR is widely used in banks for processing cheques, as it is difficult to forge the magnetic ink characters.
   g. Output devices are used to get output from the computer and present it in a form that the users can understand.

6. Application-based questions.
   a. (i) The figure represents a magnetic strip card.
(ii) The marked part in the figure is a magnetic strip. It is a special type of strip that can store data. It is made up of a magnetic material in a plastic-like film on which data is stored. The data in the form of numbers and characters is magnetically encoded on a magnetic strip.

(iii) Magnetic card reader

b. LCD projector
c. (i) The figure represents a barcode.
   (ii) Barcode reader
d. (i) These are MICR characters. They represent information like cheque number, city code (city in which branch of that bank is located), bank code and branch code.
   (ii) The MICR characters are printed in magnetic ink and it is difficult to forge the magnetic ink characters. Therefore, MICR is widely used in banks for processing cheques. First microprocessor named Intel 4004 was developed by Intel Corporation in 1971.