

## **Topics to revise**

Question 4: 16 marks (20% of the exam / 8% of your A2)

### **What do I need to demonstrate?**

- Focus on the developments of technology and the impact it has had on artists, producers and engineers (NOT on the music industry – record companies, marketing, distribution)
- An idea of the order in which things occurred / were developed and some idea of key dates. Marks will be available for key dates but will not be the main focus.
- You must have an understanding of the context and impact of developments rather than reciting facts.

### **Overview of the topics**

#### **Development of:**

- Synthesizers
- Electric guitars and amplification
- Samplers and drum machines
- Use of effects units and processors across time
- Development of recording media including multi-track recording

#### **Digital recording including an awareness of:**

- Computer-based recording (including knowledge of typical software packages)
- Hard disk/standalone recorders
- Computer hosted virtual instruments/effects
- The impact of MIDI on recording and performing
- Use of the internet as a resource and for communication between artists
- The context of all the above and the impact of technology on producers, engineers and artists.

## **In depth list of areas to revise**

(Tick when you have completed some revision notes!)

### **Development of synthesizers, electric guitars and amplification and the development of samplers and drum machines**

- The first examples of use of the technology: e.g., the first use of a pickup on a guitar.
- The reasons for the development of the technology: e.g., the guitarist wanted to be heard in a big band context.
- The development of the technology related to the changes in the pop music industry: e.g. amplification gets bigger with more distortion available to meet the demands of guitarists in the 1960s.
- Any major innovations that changed the way people view/play the instruments: e.g., development of digital synthesis.
- Pros and cons of the developments: e.g., there has been a revival of analogue synthesis because many people like the sound it makes and have grown up to love the imperfections, so they will put up with the inherent problems that digital synthesis was created to solve.
- Use of effects units and processors across time.
- The development from large, physical units such as reverb plates and spring reverbs to compact digital devices.
- The historical reason for the original use of effects and processors: e.g., equalisation development as a means of combating inherent problems with the recording technology (rather than as a creative tool)
- Development of recording media.
- A general knowledge of the recording media used across the last 100 years.
- The media used for mass distribution of recorded material (e.g. vinyl, cassette tape, CD, MP3).

### **Advent of multi-track recording**

- Digital recording
- The development of computer based recording, including the development of input/output devices such as multi-channel sound cards and external firewire/USB devices
- The development of software packages to facilitate the use of the computer hardware: e.g., how the MIDI-only packages such as Notator developed into powerful audio editing packages such as Logic and the parallel development of computer processing power and sophistication
- Virtual instruments and effects: how increased processing power was harnessed to put different instruments and effects units in one box (the computer), instead of

having many hardware equivalents, and the impact this has had on home recording and the recording industry in general.

### **MIDI**

- The development of the MIDI 1.0 specification in the 1980s
- The impact of this new connectivity standard on the development of synthesisers
- The impact of MIDI on performing: use of MIDI backings, connecting keyboards and effects units, development of MIDI guitar and drums etc.
- Impact of MIDI on recording: sequenced parts used alongside live recordings, synchronising MIDI to audio etc.

### **The internet**

- How it is used as a resource for samples, MIDI files, listening to music etc.
- How it can be used for artists in different locations to communicate with each other, including the ability to record albums even when the various performers are in different countries.