

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

Advanced GCE

GENERAL STUDIES

2968

CULTURE, SCIENCE AND SOCIETY: MAKING CONNECTIONS

Wednesday

15 JUNE 2005

Afternoon

1 hour 30 minutes

Additional materials:
Answer booklet.

TIME 1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

- Write your name, Centre number and candidate number in the spaces on the answer booklet.
- Write your answers in the answer booklet.
- If you use additional sheets of paper, fasten the sheets to the answer booklet.
- Answer **both** questions.
- Read each question carefully and make sure you know what you have to do before starting your answer.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is 100.
- In your answers you should draw upon your studies from the Scientific, Cultural and Social Domains to demonstrate a broad understanding of the issues.
- **Where an answer requires a piece of extended writing, the quality of your written communication will be assessed, including clarity of expression, structure of arguments, presentation of ideas, grammar, punctuation and spelling.**

This question paper consists of 6 printed pages and 2 blank pages.

Section A

Consider the following three sources which are concerned with the motor car and then answer the question that follows in the form of an essay.

SOURCE 1**British Hydrogen Car Unveiled**

A car powered by hydrogen that was unveiled yesterday could spell the end of the conventional car. The British-built car runs solely on hydrogen and the only waste product it produces is water. It is almost silent and is being heralded as an environmentally sound alternative to petrol-driven vehicles. The BOC Gh2ost car runs on hydrogen fuel cells, which were invented in 1839 by Sir William Grove. The process of generating electricity through fuel cells is similar to using a battery, but where a battery relies on an internal chemical fuel supply, the fuel cell can be fed continuously by an external energy storage tank.

Petrol vehicle emissions are a major contribution to the rising level of greenhouse gases. Hydrogen is odourless and tasteless and is one of the most abundant elements in the universe. The Department of Transport is introducing three buses powered by hydrogen fuel cells to a pilot scheme in London later in 2003. In the near future, the BOC Gh2ost car will attempt to break the mile per gallon record which currently stands at 10,705 miles per gallon. Breaking the record could be a slow business though as the BOC Gh2ost has a maximum speed of 15 mph.



Susannah Osborne, Daily Telegraph, 5 August 2003

SOURCE 2

Car Makers Have a Blind Spot For Pedestrians

‘Car companies are failing to add safety features that would protect pedestrians because they are more concerned with looks than saving lives.’

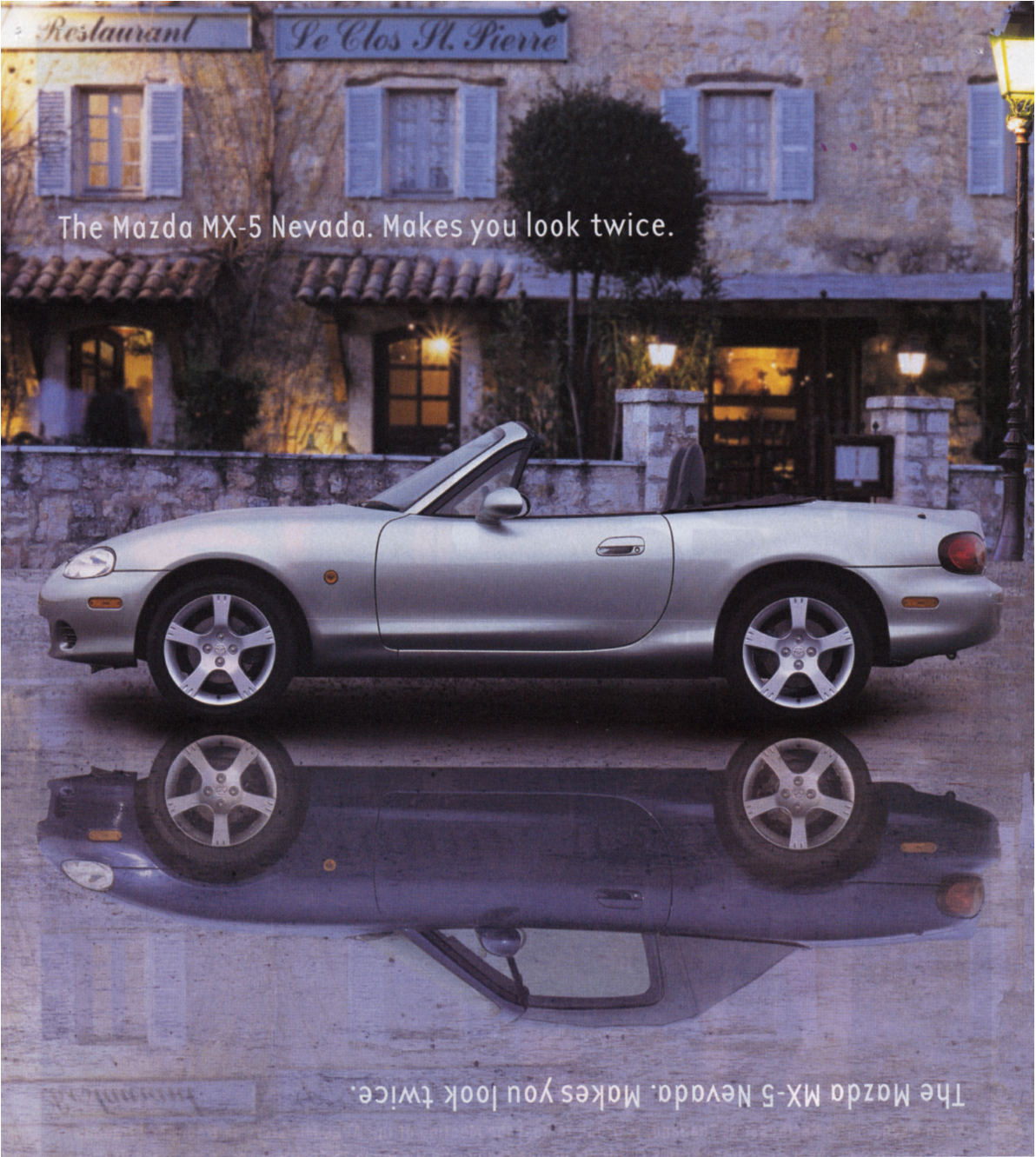
Professor Adrian Hobbs, Chief Vehicle Safety Scientist, Transport Research Laboratory

 EURO NCAP RESULTS 		
VEHICLE TESTED	OCCUPANT PROTECTION	PEDESTRIAN PROTECTION
FAMILY CARS		
Toyota Avensis	★★★★★	★
Honda Accord	★★★★	★★
Vauxhall/Opel Signum	★★★★	★
SMALL FAMILY CARS		
Peugeot 307CC	★★★★	★★
SUPER-MINIS		
Citroen C3 Pluriel	★★★★	★★
Nissan Micra	★★★★	★★
Renault Twingo	★★★	★★
LARGE 4X4s		
BMW X5	★★★★★	★
Volvo XC90	★★★★★	★★
KIA Sorento	★★★★	★
Large MPVs		
Peugeot 807	★★★★★	★
Renault Espace	★★★★★	★★
Hyundai Trajet	★★★	★
KIA Sedona/Carnival	★★	★
SMALL MPVs		
Ford Fusion	★★★★	★★
VW Touran	★★★★	★★★
ROADSTER		
MG TF	★★★★	★★★

[Tests score on a scale of 1–5, worst protection = 1 red star, best protection = 5 red stars]

Ben Webster, The Times, 27 June 2003

SOURCE 3



The Mazda MX-5 Nevada. Makes you look twice.


The Mazda MX-5 Nevada. Makes you look twice.

The Mazda MX-5 has been turning heads for years. The new special edition Mazda MX-5 Nevada is set to turn twice as many. It has the impeccable handling and performance you've come to expect from the world's best-selling roadster and is available in two striking colour combinations – Cerion Silver or Strato Blue body with stunning blue or grey interior. You can also choose from a 1.6i or 1.8i engine, both with 16 inch alloy wheels and optional leather upholstery with the 1.8i. The new Mazda MX-5 Nevada from just £15,995.

For a first look, visit www.mazda.co.uk or call 08457 48 48 48.

TIM303MX

The official fuel consumption figures in mpg (l/100km) for the Mazda MX-5 1.8i are: Urban 24.8 (11.4), Extra Urban 39.8 (7.1) and combined 32.5 (8.7). The official CO₂ emission is 210g/km. Model shown: Mazda MX-5 Nevada 1.8i with leather upholstery £16,995 on the road; includes VAT, number plates, delivery, 12 months' road fund licence and first registration tax. Vehicle shown may not be exact to UK specification. All Mazda vehicles include 3 year or 60,000 mile warranty and 3 years' European Roadside assistance.



mazda

- 1 Assess the current position of the motor car in the world from a cultural, social and scientific perspective. Outline at least **two** priorities or challenges that have faced designers and manufacturers throughout the motor car's evolution. [50]

Section B

Consider the following series of statements, adapted from the author's account of a day spent experiencing background music in different settings. Answer the question that follows in the form of an essay.

SOURCE 4

Girlfriend, N'Sync's collaboration with Louisiana rapper Nelly, is not a bad record as such, but in the world of background music, it currently occupies an almost terrifying level of ubiquity. It tinkles at a discreet volume in sandwich bars and pubs. It blares from the speakers of clothes boutiques and record shops.

*

The music played in my local council gym seems harmless enough. There's no psychological profiling or involuntary behavioural modification going on here, just a cassette playing a muffled selection of old dance anthems, the hits of Ibiza '97. Once this music inspired dance-floor euphoria, whipped crowds of clubbers into raging frenzies. But its moment has passed. Now, it's an after-thought. No-one's even listening to it – virtually everyone else in the gym is wearing headphones.

*

'Music can influence a lot of things in shops,' – says Philip Tagg of Liverpool's Institute of Popular Music – 'the customer turnaround, the way people perceive the store, the way people behave while they are there. Most people think they just switch off when they hear background music but it does affect people's behaviour at an involuntary level. If music is playing really loud, even if you are not really listening to it, you have to speak louder, and your gestures become somewhat modified. In a way, background music puts you on a lower level of consciousness. Silence gives you time to reflect, and if you reflect you might start to worry.'

*

The onset of lunch draws me to the sandwich bar Prêt A Manger. There, the background music shifts from slow trip-hop to swinging 1950s jazz and back again. It obviously gives off a far more rarefied and up-market aura than the pop and hip-hop that plays in the fast food outlets, but it's far from relaxing. The jazz is fast-paced and fidgety, the continual changes in mood strangely unsettling.

*

Philip Tagg says: 'If you want to speed up customer turnaround, the easiest way is to play music that changes in tempo, that sounds very busy, that includes a lot of brass instruments.'

*

A bus ride to Homebase reveals that even this DIY superstore now boasts its own radio station, Homebase FM. During my visit it pumps out an unceasing diet of David Gray, Travis and late-period Oasis. A spokesman denies any specific music policy beyond 'a good mix of contemporary pop music which varies in tempo to appeal to different customer moods'.

*

When Count Keiserlingk commissioned Bach to write the Goldberg Variations, background music intended to help him sleep, he demanded it to be 'calm and somehow cheerful'. That was in 1742. Two hundred and sixty years later, nothing much has changed. There is no light and shade in background music, no emotional variety, the cumulative effect is always calm and cheerful.

Source: *Soundtrack of our lives* by Alexis Petridis, The Guardian, 9 August 2002

- 2 Briefly outline how, where and when we hear music. Using examples, analyse the extent to which cultural, social and scientific factors have influenced our tastes and preferences. [50]

