Comprehension Passages

Passage 1

If there is one place where the carnage at the World Trade Centre and the Pentagon must have inspired some uncomfortable self-reflection, it was in the executive corridors of this town’s studio conglomerates. Summer after summer they have churned out eerily similar fantasy images of planes being hijacked, buildings being blown up, and cities being reduced to rubble, if under the guise of popular entertainment.

Much has been written about the terrorist attacks’ effect on our political and financial institutions. But little has been said about the effect on our pop culture. Yet, I suspect that our culture will eventually be transformed as much as any other arena of American life. “When you drop a stone in a pond, it has a ripple effect,” says Armyan Bernstein, producer of such films as 13 Days and Hurricane. “Well, this is like dropping a boulder or a meteor. I don’t know one person who hasn’t had their spirit challenged. People have changed.”

Change is overdue. In the past decade, Hollywood has metamorphosed into a soulless popcorn machine, designed to pay off at every stop on the global gravy train, from movie theatres to cable TV to DVDs. The studios have largely abandoned any pretence of grappling with real-life issues of the modern world.

Ask any top screenwriter or producer. It’s almost a lost cause to pitch an adult drama or a movie about politics. Unless you’ve got an A-list movie star in your back pocket – or a project helmed by a director with a pile driver ferocity of Oliver Stone or Michael Mann – they won’t even stamp your parking ticket on the way out. For every Erin Brokovich or Traffic, there are hundreds of forgettable fantasy thrill rides like Tomb Raider or the Mummy Returns. If you want to see drama about contemporary issues, you have to turn on your TV and watch The West Wing, or Law and Order. The movie studios these days are in the celluloid theme-park business.

Hollywood executives argue that they simply make the movies people want to see. So maybe Hollywood will recognize that Americans suddenly view the world as a more serious place. There’s a new moral gravity out there. It is a time for soul searching. In Washington, politicians are putting aside petty partisan differences. In hard-boiled New York, there has been an outpouring of good Samaritanism and communal feeling.

The terrorist attacks may have brought to a close a decade of enormous frivolity and escapism. No one knows for sure how quickly or enduringly this kind of transformation takes place. Pop culture is largely the province of the subconscious. That’s why it’s so unpredictable, why it’s so hard to tell which movie or CD or TV show will be a hit or a flop.

But for years to come, many of us will feel a tiny shiver when we see a bearded Middle Easterner getting on a plane in front of us. So imagine our sub-conscious reaction to watching a movie where a building full of people is incinerated by a fiery explosion. Will it still feel like “fun”? Will it still be “exciting”? Will studio marketers still cheerfully call it a “spine-tingling thrill ride”?

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Hollywood has always been thought of as a pretty silly place; intoxicated by ego and vanity, but in the past, when faced with tragedy, it has sobered up fast. After the Japanese attack on Pearl Harbour, fatuity turned to patriotic fervour overnight.

Soon Hollywood was making so many war-in-the-Pacific films that the studios ran out of bad guys, since in the hysteria after Pearl Harbour, the government had rounded up all the Japanese American citizens and put them in internment camps. The studios would have to make do with hastily recruited Chinese actors instead.

So far, today’s entertainment giants have reacted to the tragic events with largely cosmetic measures. A few scripts are being tossed out or rewritten. Warner Brothers has postponed the release of Collateral Damage, which opens with a terrorist explosion, while Disney has pulled Big Trouble, which features dimwitted criminals hijacking a plane armed with a nuclear weapon. The studios obviously fear that the public will turn away in distaste, especially now that reality is all too interchangeable with special effects.

But how long will our unease last? How would you react today to watching hijackers seize the president’s plane in Air Force One? Or mercenaries holding an airport hostage in Die Hard 2? Or scenes of the White House exploding in Independence Day? Will it be too close for comfort to watch this weekend? What about next month or next year? When will gore and mayhem and gung-ho bravado be an acceptable escapist fantasy again?

1. What was the effect of Pearl Harbour on Hollywood?                                           (2 marks)

2. Give the meaning of the underlined words: carnage; churned; ripple; metamorphosed; frivolity; hysteria; dimwitted.                                                                                 (7 marks)

3. Why does the author think that Hollywood needs to change its ways in the aftermath of the September 11 attacks on America?                                                                   (3 marks)

4. In not more than 40 words summarize the thinking of Hollywood executives before the terrorist attacks on the World Trade Centre and the Pentagon, and since. (8 marks)

Passage 2

The bulk of the advertising directed at children today has an immediate goal. “It’s not just getting kids to whine,” one marketer explained in Selling to Kids, “it’s giving them a specific reason to ask for the product.” Years ago sociologist Vance Packard described children as “surrogate salesmen” who had to persuade other people, usually their parents, to buy what they wanted. Marketers now use different terms to explain the intended response to their ads – such as “leverage,” “the nudge factor,” “pester power.” The aim of most children’s advertising is straightforward: Get the kids to nag their parents and nag them well.

James U. McNeal, a professor of marketing in Texas University, is considered America’s leading authority on marketing to children. In his book Kids as Consumers (1992), McNeal provides marketers with a thorough analysis of “children’s requesting styles and appeals.” He
classifies juvenile nagging tactics into seven major categories. A *pleading* nag is one accompanied by repetitions of words like “please” or “mom, mom, mom.” A *persistent* nag involves constant requests for the coveted product and may include the phrase “I’m going to ask you just one more time.” *Forceful* nags are extremely pushy and may include subtle threats like “Well, then, I’ll go and ask Dad.” *Demonstrative* nags are the most high-risk, often characterised by full-blown tantrums in public places, breath-holding, tears, a refusal to leave the store. *Sugar-coated* nags promise affection in return for a purchase and may rely on seemingly heartfelt declarations like “You’re the best dad in the world.” *Threatening* nags are youthful forms of blackmail, vows of eternal hatred and of running away if something is not bought. *Pity* nags claim that the child will be heartbroken, teased or socially stunted if the parent refuses to buy a certain item. “All of these appeals and styles may be used in combination,” McNeal’s research has discovered, “but kids tend to stick to one or two of each kind of nag that proved most effective … for their own parents.”

McNeal never advocates turning children into screaming, breath-holding monsters. He has been studying “Kids Kustomers” for more than thirty years and believes in a more traditional marketing approach. “The key is getting children to see a firm … in much the same way as [they see] mom or dad, grandma or grandpa,” McNeal argues. “Likewise, if a company can ally itself with universal values such as patriotism, national defense, and good health, it is likely to nurture belief in it among children.”

Before trying to affect children’s behaviour, advertisers have to learn about their tastes. Today’s market researchers not only conduct surveys of children in shopping malls, they also organize focus groups for kids as young as two or three. They analyse children’s artwork, hire children to run focus groups, stage slumber parties and then question children into the night. They send cultural anthropologists into homes, stores, fast food restaurants and other places where kids like to gather, quietly and surreptitiously observing the behaviour of prospective customers. They study the academic literature on child development, seeking insights from the work of theorists such as Erik Erikson and Jean Piaget. They study the fantasy lives of young children, then apply the findings in advertisements and product designs.

The Internet has become another powerful tool for assembling data about children. In 1998 a federal investigation of websites aimed at children found that 89 percent requested personal information from kids; only 1 percent required parental approval before supplying the information. A character on the McDonald’s website told children that Ronald McDonald was “the ultimate authority in everything.” The site encouraged children to send Ronald an e-mail revealing their favourite menu item at McDonald’s, their favourite book, their favourite sports team – and their name. Fast food websites no longer ask children to provide personal information without first gaining parental approval; to do so is now a violation of federal law, thanks to the Children’s Online Privacy Protection Act, which took effect in April 2000.

Despite the growing importance of the Internet, television remains the primary medium for children’s advertising. The effects of these TV ads have been a subject of controversy. In 1978, the Federal Trade Commission (FTC) tried to ban all television ads directed at children seven years old and younger. Many studies had found that young children often could not tell the difference between television programming and television advertising. They could not comprehend the real purpose of commercials and trusted the advertising claims were true. Michael Pertschuk, the head of the FTC, argued that children need to be shielded from advertising that preys upon their immaturity. “They cannot protect themselves,” he said, “against adults who exploit their present-mindedness.”

1. What is “pester power” and how is it used as a marketing strategy? (4 marks)
2. How has the Internet contributed to the expansion in advertising directed toward children, according to the author? (3 marks)

3. Give the meaning of the underlined words and phrases: subtle; stunted; surreptitiously; controversy and preys (5 marks)

4. In not more than 50 words show how researchers set out to learn children’s tastes and interests. (8 marks)

Passage 3

Of all the modifications wrought upon it, the phenomenon of designer jeans speaks most directly to the garment’s encoding of status ambivalences. The very act of affixing a well-known designer’s label – and some of the world’s leading hautes couturiers* in time did so – to the back side of a pair of jeans has to be interpreted, as an instance of conspicuous consumption; in effect, a muting of the underlying rough-hewn proletarian connotation of the garment through the introduction of a prominent status marker. True, sewing an exterior designer label onto jeans – a practice designers never resort to with other garments – was facilitated psychologically by the prominent Levi Strauss & Co. label, which had from the beginning been sewn above the right hip pocket of that firm’s denim jeans and had over the years become an inseparable part of the garment’s image. It could then be argued, as it sometimes was, that the outside sewing of a designer label was consistent with the traditional image of blue jeans. Still, Yves Saint Laurent, Oscar de la Renta or Gloria Vanderbilt for that matter, are not names to assimilate easily with Levi Strauss, Lee or Wrangler - a distinction hardly lost on most consumers.

But as is so characteristic of fashion, every action elicits a reaction. No sooner had the snob-like, status-conscious symbolism of designer jeans made its impact on the market than dress coteries** emerged whose sartorial stock-in-trade was a display of disdain for the invidious distinctions registered by so obvious a status ploy. This was accomplished mainly through a demonstration of hyper-loyalty to the original, underlying egalitarian message of denim blue jeans.

But such is fashion’s way. Were it the case, as some scholars have maintained, that fashion’s sole symbolic end was registering invidious distinctions of higher and lower, or better or lesser – that is, distinctions of class and social status – it would hardly have been enough “to talk about”; certainly not enough to account for its having thrived in Western society for as long as it has. But, as we have already seen … it does have more to say: about our masculinity and femininity, our youth and age, our sexual scruples or lack thereof, our work and play, our politics, national identity and religion. This said, one need not take leave of what has engaged us here, that rich symbolic domain that treats of the deference and respect we accord and receive from others, in order to appreciate that fashion is capable of much greater subtlety, more surprises, more anxious backward glances and searching forward gazes than we credit it with.

*leading dressmakers and fashion houses
1. Why is the act of affixing a label onto the back pocket of a pair of jeans considered to be an act of ‘conspicuous consumption’? (4 marks)

2. Do you agree that fashion’s sole symbolic end is to register ‘invidious distinctions of higher and lower or better and lesser – that is, distinctions of class and social class’? (4 marks)

3. Give the meaning of the underlined words and phrases: facilitated; sartorial; disdain; egalitarian. (4 marks)

4. Not exceeding 80 words, summarise the above passage in your own words (8 marks)

**Passage 4**

You suspect you may be a coffee addict when you start answering the front door before the doorbell rings! But when you can’t resist buying a coffee mug with a picture of a coffee mug on it … it’s official. You’re hooked. For you and at least thirty-five million javaholics (four to five cups a day), coffee is life.

But coffee’s not the worst of our addictions, not by a long shot. Fourteen million Americans use illegal drugs, twelve million Americans are heavy drinkers, and sixty million are hooked on tobacco. Five million Americans can’t stop gambling away their incomes and savings. And at least ten million can’t stop buying more and more stuff – an addiction that in the long run may be the most destructive of all.

Lianne, a department store publicist in New York City, is a problem shopper. Every year she uses her employee discount to rack up more than $20,000 in clothing and accessory bills. She finally suspected she might be addicted when she broke up with her boyfriend and moved her stuff out of his apartment. “Some women tend to shop a lot because they live out of two apartments, theirs and their boyfriend’s,” she explains. “You never look at your wardrobe as one wardrobe. But when I saw how many things I had were identical, I began to see that maybe I did have a problem.”

Addiction to stuff is not easily understood. It’s a bubbling cauldron of such traits as anxiety, loneliness, and low self-esteem. “I’d like to think I shop because I don’t want to look like everyone else,” Lianne confides anonymously, “but the real reason is because I don’t want to look like myself. It’s easier to buy something new and feel good about yourself than it is to change yourself.”

Addicts need to go back for more in order to feel good again. The addictive substance or activity takes away the emotional discomfort of everyday life, and also releases the built-up tensions of craving. The goal is to get back to a place of perceived power and carefree abandonment. The drinker suddenly becomes loose and uninhibited, certain he’s the funniest man in the world. The gambler feels the elation of risk and possibility – putting it all on the
line so Lady Luck can find him. The addicted shopper seeks the high she felt a few days earlier when she bought a dress she still hasn’t taken out of the box.

According to Dr Faber, compulsive buyers often report feeling heightened sensations when they shop. Colours and textures are more intense, and extreme levels of focus and concentration are often achieved – literally, altered states of consciousness. Some extreme shoppers compare their highs to drug experiences.

“I’m addicted to the smell of suede, the smooth texture of silk, and the rustle of tissue paper,” admits one shopping addict. She also loves the captive attention she commands from other shoppers. And because her credit card is always ready for use, she can shop whenever she wants. Now that’s power.

1. What is considered to be America’s “most destructive” addiction? (2 marks)

2. Do you agree with the comparison between addictive shopping and physical addiction such as alcoholism? Give reasons for your answer. (5 marks)

3. Give the meaning of the underlined words and phrases: not by a long shot; in the long run; confides; uninhibited; captive attention. (5 marks)

4. Summarize the passage in not more than 80 words. (8 marks)

Passage 5

Studying bats could be forcing them to go hungry, warn researchers in Britain.

Normally, two rings are used to study bats. A durable metal ring with a serial number gives the animals a lifelong identity mark. And in short-term studies, researchers often add a second, coloured plastic ring so that they can work out who’s who at a distance. Both rings are clipped onto one of the forearms that supports each wing.

Gareth Jones and his colleagues at the University of Bristol say these rings could be interfering with the bats’ feeding behaviour because they knock together, making a sound that scares away insects the bats feed on.

The team was recording the echolocation calls of two species of mouse-eared bat, *Myotis Myotis* and *Myotis Blythii*, in the lab when they picked up strange ultrasonic noises from rings clashing on the bats. “We noticed it as an aside, really,” says Jones. “It is like an ultrasonic clonk.”

Jones speculated that the sounds might be audible to moths that bats eat. The moths have tympanic organs, drum-like hearing devices that are sensitive to ultrasonic frequencies. The team tested the theory by first checking the neural response of lesser yellow underwing moths, *Noctua Comes*, to the ring sounds. Mouse-eared bats usually echolocate at night using ultrasonic frequencies around 45 kilohertz. Moths can hear these calls, but the team found that the moth’s nerves respond even more sensitively to ultrasound at 20 kilohertz, which is close
to the frequency produced by the clinking rings.

Next the researchers played back the ring sounds to 33 flying moths. Nearly half the moths performed an elaborate escape manoeuvre on hearing the noise. “It might be dangerous to double-ring bats,” says Jones. “It’s equivalent to putting a cat bell on a cat. The sound alerts prey.” Previous research has shown that evasive manoeuvres give moths a 40 per cent better chance of avoiding being eaten.

Jones expects that other prey insects could also detect the ring sounds. Bush crickets, for instance, may stop singing on hearing the noise, making it harder for bats to locate them. He doesn’t believe, however, that the ring noises would confuse the bats themselves. “Bats are good at filtering out sounds they are not interested in. They can work out their own echoes in a cave of hundreds of bats all echolocating at the same time.”

Bat expert Paul Racey of Aberdeen University says the discovery is important. “Rendering bats less able to get food could have very serious conservation consequences.” It could also affect the results of studies into complex bat behaviour, he says. Racey suggests that researchers could get round the problem by adding coloured reflective tape to single metal rings to identify the bats at a distance.

Matt Walker in New Scientist (24 April 1999)

1. What is the meaning of durable, speculated, elaborate, manoeuvre, evasive and rendering underlined in the passage above? (3 marks)
2. The technical term “echolocation” can be defined as follows: “determination of the position of an object by measuring the time taken for an echo to return from it and its direction”. What two elements form this compound word? What use do bats make of echolocation? (3 marks)
3. What different purposes do the two rings used in the study of bats serve? (2 marks)
4. How could the ringing of bats be affecting their feeding patterns? (2 marks)
5. Assuming that the rings placed on bats are having a negative effect on their feeding patterns, what problems do scientists envisage? (2 marks)
6. In a paragraph of not more than 80 words, outline the steps followed by scientists in their attempt at testing the hypothesis that the jangling ID tags placed on bats were causing them to go hungry. (8 marks)

Passage 6

Even a tone-deaf trucker knows that the most famous, the most expensive, the most desired violin in the world today is a Stradivarius. But why should these 300-year-old instruments be so sought after? And why have they never been eclipsed? These two questions lie at the centre of Tony Faber’s enlightening book about a man with magical hands.

When Antonio Stradivari set up his workshop in the small northern Italian town of Cremona in the 1660s, the best-known violins were being made by the Amati family. Small, yet beautifully inlaid, the Amatis’ sweet, contained tone was ideally suited to music for the court.
or the drawing-room. The violin, so human in range, so female in shape (as epitomised by Man Ray’s 1924 photograph of a woman with a pair of S-shaped sound-holes painted on her back), had already become the king of the orchestra. Catherine de Medici, who ordered a set of 38 stringed instruments, was an early buyer.

But by the 18th century, music-making was beginning to change. In order to make the violin project a rich, full tone to the very back of a music room and eventually, of a concert hall, violin-making had to change too. Stradivari became the master of that metamorphosis, perfecting the varnishing of his instruments, seeking out better and bigger pieces of maple from which to cut violin backs in a single piece, and experimenting with incremental changes to the length of the soundbox and the arch of the belly. As George Eliot once wrote: “‘Tis God gives skill, but not without men’s hands. He could not make Antonio Stradivari’s violins without Antonio.”

The real delight of Mr. Faber’s book lies in his decision to tell the Stradivari story through the lives of six of the master’s best-known instruments. One of them, known as the Messiah, a violin with a magnificent tiger-striped pattern on its back, was found in Stradivari’s studio when he died in 1737.

A century later, it was in the hands of Luigi Tarisio, a peasant’s son who, despite his humble background, was then in Paris telling the leading instrument-makers of the day, Jean-Baptiste Vuillaume and his son-in-law, Delphin Alard, about the existence of a perfect Stradivarius from the master’s golden age. “So,” the exasperated Alard replied, “your violin is like the Messiah, always expected but never appearing.” Thus its name was born.

Vuillaume never forgot Tarisio’s claims – of a Stadivarius violin that had not been altered or even played. When, by chance, he heard of the Italian’s death, he collected together as much money as he could before heading for Italy and the smallholding where Tarisio’s heirs lived. Guided by Tarisio’s sister, Vuillaume began opening drawers in a piece of rickety furniture. There, in addition to five other masterpieces, he found the Messiah, which today is in the Ashmolean Museum in Oxford, where it is the only instrument to have its own showcase. It has never been played.

The other instruments that people Mr Faber’s book have, however, been played – by Paganini, Yehudi Menuhin and Tasmin Little among others. Each musician has tried to explain what they feel for them. But it is Ivry Gitlis, a less well-known name, who has perhaps put it best: “I have a violin that was born in 1713,” he wrote four years ago. “I don’t consider it my violin. Rather, I am its violinist; I am passing through its life.”

The Economist (4/10 September 2004)

1. What is the meaning of eclipsed, contained, epitomised, metamorphosis, incremental, exasperated, smallholding and rickety underlined in the passage above? (4 marks)
2. List at least 3 words/phrases which have been used to describe the different violins mentioned in the text. Which of these do you find the most effective and why? (3 marks)
3. What was “the Messiah” referred to in paragraph 4 and how did it get its name? (2 marks)
4. Who is “the Master” referred to in paragraph 5 and who is “the Italian” referred to in paragraph 6? (2 marks)
5. What evidence can you find that the above text is a book review? (3 marks)

6. In not more than 80 words, describe the changes in the way violins were made in the 17th century as compared to the 18th and summarise the reasons for these changes. (6 marks)

Passage 7

As modern humans moved throughout the Old World about 100,000 years ago, their skin adapted to the environmental conditions that prevailed in different regions. The skin colour of the indigenous people of Africa has had the longest time to adapt because anatomically modern humans first evolved there. The skin colour changes that modern humans underwent as they moved from one continent to another – first Asia, then Austro-Melanesia, then Europe and, finally, the Americas – can be reconstructed to some extent. It is important to remember, however, that those humans had clothing and shelter to help protect them from the elements. In some places, they also had the ability to harvest foods that were extraordinarily rich in vitamin D, as in the case of the Inuit. These two facts had profound effects on the tempo and degree of skin colour evolution in human populations.

Africa is an environmentally heterogeneous continent. A number of the earliest movements of contemporary humans outside equatorial Africa were into southern Africa. The descendants of some of these early colonizers, the Khoisan (previously known as Hottentots), are still found in southern Africa and have significantly lighter skin than indigenous equatorial Africans do – a clear adaptation to the lower levels of UV radiation that prevail at the southern extremity of the continent.

Interestingly, however, human skin colour in southern Africa is not uniform. Populations of Bantu-language speakers who live in southern Africa today are far darker than the Khoisan. We know from the history of this region that Bantu speakers migrated into this region recently – probably within the past 1,000 years – from parts of West Africa near the equator. The skin colour difference between the Khoisan and Bantu speakers such as the Zulu indicates that the length of time that a group has inhabited a particular region is important in understanding why they have the colour they do.

Cultural behaviours have probably also strongly influenced the evolution of skin colour in recent human history. This effect can be seen in the indigenous peoples who live on the eastern and western banks of the Red Sea. The tribes on the western side, which speak so-called Nilo-Hamitic languages, are thought to have inhabited this region for as long as 6,000 years. These individuals are distinguished by very darkly pigmented skin and long, thin bodies with long limbs, which are excellent biological adaptations for dissipating heat and intense UV radiation. In contrast, modern agricultural and pastoral groups on the eastern bank of the Red Sea, on the Arabian Peninsula, have lived there only about 2,000 years. These earliest Arab people, of European origin, have adapted to very similar environmental conditions by almost exclusively cultural means – wearing heavy protective clothing and devising portable shade in the form of tents. (Without such clothing, one would have expected their skin to have begun to darken.) Generally speaking, the more recently a group has migrated into an area, the more extensive its cultural, as opposed to biological, adaptations to the area will be.
1. What is the meaning of indigenous, heterogeneous, uniform, dissipating and pastoral italicised in the passage above? (5 marks)

2. What are the two facts reported as having ‘profound effects on the tempo and degree of skin colour evolution in human populations’ referred to in paragraph 1? (4 marks)

3. What light does knowledge of the language spoken by different groups of people throw on explanations relating to the emergence of differences in skin colour? (4 marks)

4. In a paragraph of not more than 80 words, summarise the arguments about the effects of both culture and biology on differences in skin colour. (7 marks)

Passage 8

’Tis the season to be jolly. But have you ever wondered about laughter? Why do we emit those strange yelps? What do they mean? And where did tittering come from? I’m not joking – this is serious.

We like to think that laughing is the height of human sophistication. Our big brains let us see the humour in a strategically positioned pun, an unexpected plot twist or a clever piece of word play. But while joking and wit are uniquely human inventions, laughter certainly is not. Other creatures, including chimpanzees, gorillas and even rats, chuckle. Obviously, they don’t crack up at Homer Simpson or titter at the boss’s dreadful jokes, but the fact that they laugh in the first place suggests that sniggers and chortles have been around for a lot longer than we have. It points the way to the origins of laughter, suggesting a much more practical purpose than you might think.

There is no doubt that laughing is a social activity. “Laughter evolved as a signal to others – it almost disappears when we are alone,” says Robert Provine, a neuroscientist at the University of Maryland and author of Laughter: A Scientific Investigation and the man behind the first research into what really makes people laugh. Provine found that most laughter comes in polite response to everyday remarks. The idea that laughter works as a kind of social glue fits with some other observations. A baby’s first giggle comes at around three or four months, which also happens to be the time the baby starts to recognise individual faces. And the way we laugh depends on the company we’re keeping.

In the house of laughter, humour is a recent extension built with the bricks of language. To find the foundations – the origins of laughter – we need to dig deeper. For Provine, the key lies in play. He points out that the masters of laughing are children, and nowhere is their talent more obvious than in the boisterous antics of rough-and-tumble play. “The original stimulus for laughter is the tickle, and the original context is play,” he says. What’s more this happy combination of tickle, laugh and play seems to extend way back beyond the origins of our own species. “Tickle a chimp and it has a characteristic play face and vocalisation,” says Provine. That sound is known as a pant laugh.

Well-known primate watchers, including Dian Fossey and Jane Goodall, have long argued that
chimps laugh while at play. It seems obvious when you watch their shenanigans – they even have the same ticklish spots as we do. But remove the context, and the parallel between laughter and a chimp’s characteristic pant laugh is not so clear. When Provine, played a tape of the pant laughs to 119 of his students, for example, only two guessed correctly what it was. Some suggested it was a mechanical noise such as sawing, although nearly a third identified it as an animal panting.

These findings underline the main difference between chimp and human laughter. When we laugh the sound is usually produced by chopping up a single exhalation into a series of ha, ha, has. Chimps do not have the vocal control to do that, so their laugh is breathy, with one sound produced on each inward and outward breath. The question is: does this pant laughter have the same origins as our own laughter?

New research lends weight to the idea that it does. The findings come from Elke Zimmermann, head of the Institute for Zoology at the Hannover School of Veterinary Medicine in Germany, who compared the sounds made in response to tickling by babies and bonobos during the first year of their life. Using sound spectrographs to reveal the pitch and intensity of vocalisations, she discovered that bonobo and human baby laughter follows broadly the same pattern. The main difference lies in the pitch, which is higher among chimps.

Zimmermann believes the similarity between bonobo and baby laughs supports the idea that laughter evolved long before humans arrived on the scene. Provine is also convinced. “The chimp pant-pant is transformed into the human ha-ha,” he says. And what started simply as a modification of breathing associated with enjoyable and playful interactions has acquired a symbolic meaning as an indicator of pleasure. “Laughter is the ritualised panting of rough-and-tumble play,” he concludes. “It may provide the best example of how a specific instinctive vocalisation evolved.”

Kate Douglas in New Scientist

1. List 6 synonyms for ‘laugh’ from the above passage. (3 marks)
2. In what ways does laughter differ from humour? (2 marks)
3. What seem to be some of the functions of laughter? (2 marks)
4. Briefly describe the physiological distinction made by scientists, between chimp and human laughter. (2 marks)
5. What does the author mean by the following: ‘But remove the context and the parallel between human laughter and a chimp’s characteristic pant laugh is not so clear’ in paragraph 5? (3 marks)
6. In a paragraph of not more than 60 words, outline the findings of the research on the origins of human laughter described in the last four paragraphs of the extract given above. (8 marks)

Passage 9

“Doing porridge” – British slang for spending time behind bars – will never be the same if a group of academics in England and Ireland have their way. They have found that improving
the diets of prisons also reduces their tendency to behave badly.

Bernard Gesch, a researcher at Oxford University, wanted to see if bringing inmates’ consumption of various vitamins, minerals and fatty acids (the stuff found in fish oil) up to recommended daily levels would affect their behaviour. These days prison canteens generally offer menus which meet national dietary standards but prisoners often prefer the junk food they buy in the prison shop to the healthier stodge on their trays.

The study involved 231 18-to-21 year-old men in a maximum-security jail in Aylesbury. Half of the offenders received daily nutritional supplements, and the rest placebo pills. ¹ The two groups included a comparable mix of anxious, depressed and aggressive individuals. Their antisocial antics – ranging from violent assaults to swearing at the guards – were recorded before and during the experiment.

The results, published in the July issue of the *British Journal of Psychiatry*, are striking. Those on supplements committed 25% fewer offences than those taking placebos. Moreover, with at least two weeks’ “treatment”, inmates receiving supplements committed 35% fewer offences than before starting the trial, compared with a 7% reduction in those taking placebos. The team reckons that a year’s worth of micronutrient supplements would cost the prison service in Britain £3.5m, less than 0.2% of its current annual budget.

These results come as little surprise to Mr Gesch, a former probation officer. He has seen remarkable recoveries in juvenile delinquents whose diets have been adjusted to account for micronutrient deficiencies. This experience, and the success of the Aylesbury experiment, leads him to hope that a similar trial outside prison walls might have a salutary effect on crime in the community.

In the meantime, Mr Gesch and his team at Natural Justice, a charity interested in the social and physical causes of crime, want to expand their prison experiment to include more inmates and more sophisticated measures of which nutrients are having which effects. Researchers in America, whose jails are overflowing, are eager to participate, but experimenting on prisoners is ethically problematic, and so initiating such studies takes time.

One question scientists are keen to address is exactly how such tiny doses of nutrients achieve such big changes in behaviour. Joseph Hibbeln, at the National Institute of Alcohol Abuse and Alcoholism, points to omega-3 fatty acids as chiefly responsible. There is growing evidence that such fatty acids can lighten depression and reduce irritability in adults; in animal experiments, omega-3 fatty acids have been shown to raise brain levels of serotonin, a biochemical implicated in a variety of mood disorders. Pinning down these links will be key to changing behaviours. In crime control, feeding the mind may one day prove a useful adjunct to locking up the body.

From: *The Economist*

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¹ Placebo – a substance with no therapeutic effect used as a control in testing new drugs.
underlined in the passage above? (5 marks)

3. What questions arising out of the research findings do researchers hope to address in the future? (4 marks)

4. In a paragraph of not more than 80 words, summarise the details of the research carried out in the maximum-security Aylesbury jail. Outline both the procedure employed and results obtained. (8 marks)

Passage 10

Normal salinity in oceans such as the Atlantic and Pacific is reckoned at 35 parts per thousand. However, it differs in other seas and lakes. For example, in the Mediterranean Sea it is 38 parts per thousand (ppt), but salinity in the Dead Sea rises to over 280 ppt.

Seawater salinity was first determined scientifically in 1872 during the expedition of the sailing ship Challenger which took seawater samples from all the world’s oceans. The Challenger’s experiments led to the Rule of Constant Proportion, which states that regardless of the total concentration, the relative proportions of the ionic constituents of seawater remain constant.

In other words, the salinity of a seawater sample whether it is taken from the Pacific Ocean, the Mediterranean or the Baltic Sea is the same -- the chloride concentration is always 55.04% of total ions. Since chloride is the most abundant salt, it is used to calculate salinity. The sodium concentration is always 30.61% of the total, and that of calcium always 1.16% of total ions.

The corvette Challenger left Portsmouth Harbour in the south of England on 21 December 1872 and in so doing altered the course of marine scientific history. For four full years, top experts in chemistry, biology, physics and engineering joined together on a research expedition to learn more about the seas and the oceans.

Initially, the Challenger was a sailing ship but it could also use steam. This rendered it more stable while taking samples. Before steaming out of Portsmouth, sixteen of the ship’s eighteen guns were removed, so that the freed space could be utilised to house up to 144 miles of rope and 12.5 miles of strong wire and cable. These were used to lower and lift heavy sampling equipment.

Its chemistry laboratory contained the latest standard equipment available in the late nineteenth century and allowed a mapping of ocean chemistry throughout the world. There, the famous scientist James Buchanan measured salinity and carbonic acid as well as other chemical variables.

During its journey, the Challenger circumnavigated the globe, sounded the ocean bottom to a depth of 26,850 feet, discovered innumerable new species, and meticulously measured the salinity of seawater. One other great accomplishment of the Challenger expedition was the
collection of deep and shallow water biological *specimens* throughout the world.

1. Re-read the passage above and **state your reasons why you think the following statements are True or False.**

   (7 marks)

   a. The sole aim of the *Challenger*’s voyage was to measure the depth of the oceans.
   b. Sixteen of the corvette’s guns were removed to make more space for the collected samples.
   c. In 1872, corvettes used both sails and steam.
   d. Chloride is the least abundant “salt” found in seawater.
   e. James Buchanan collaborated with scientists and engineers during the *Challenger* expedition.
   f. The Rule of Constant Proportion states that seawater salinity is the same in all seas and oceans.
   g. The *Challenger*’s voyage of exploration came to a halt in early 1876.

2. Give the meaning of the following words in the passage.  
   (5 marks)

   reckoned; regardless; constant; calculate; altered; initially; latest; circumnavigated; meticulously; specimens.

3. What do the underlined words in the passage (it, These, There) specifically refer to?  
   (3 marks)

4. Summarize the above passage. **Do not exceed 80 words.**