

Model Test Paper 13
General Study Paper II

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO

TEST BOOKLET
GENERAL STUDIES
Paper-II

A

Time Allowed : Two Hours

Maximum Marks : 200

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION YOU SHOULD CHECK THAT THE TEST BOOKLET *DOES NOT* HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC, IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. **Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series A, B, C or D carefully and without any omission or discrepancy at the appropriate place in the OMR Answer Sheet. Any omission/discrepancy will render the Answer Sheet liable for rejection.**
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside . *DO NOT* write *anything else* on the Test Booklet.
4. This Test Booklet contains **80** items (questions). Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose *ONLY ONE* response for each item.
5. You have to mark all your responses *ONLY* on the separate Answer Sheet provided.
6. **All** items carry equal marks.
7. Before you proceed to mark in the Answer Sheet the response to various items in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Answer Sheet and the examination has concluded, you should hand over to the invigilator only the *Answer Sheet*. You are permitted to take away with you the Test Booklet.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. **Penalty for wrong Answers :**
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY A CANDIDATE IN THE OBJECTIVE TYPE QUESTION PAPERS.
(i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-third** of the marks assigned to that question will be deducted as penalty.
(ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above to that question.
(iii) If a question is left blank, i.e., no answer is given by the candidate, there will be **no penalty** for that question.

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No very satisfactory account of the mechanism that caused the formation of the ocean basins has yet been given. The traditional view supposes that the upper mantle of the earth behaves as a liquid when it is subjected to small forces for long periods and that differences in temperature under oceans and continents are sufficient to produce convection in the mantle of the earth with rising convection currents under the mid-ocean ridges and sinking currents under the continents. Theoretically, this convection would carry the continental plates along as though they were on a conveyor belt and would provide the forces needed to produce the split that occurs along the ridge. This view may be correct: it has the advantage that the currents are driven by temperature differences that themselves depend on the position of the continents. Such a back-coupling, in which the position of the moving plate has an impact on the forces that move it, could produce complicated and varying motions. On the other hand, the theory is implausible because convection does not normally occur along lines, and it certainly does not occur along lines broken by frequent offsets or changes in direction, as the ridge is. Also it is difficult to see how the theory applies to the plate between the Mid-Atlantic Ridge and the ridge in the Indian Ocean. This plate is growing on both sides, and since there is no intermediate trench, the two ridges must be moving apart. It would be odd if the rising convection currents kept exact pace with them. An alternative theory is that the sinking part of the plate, which is denser than the hotter surrounding mantle, pulls the rest of the plate after it. Again it is difficult to see how this applies to the ridge in the South Atlantic, where neither the African nor the American plate has a sinking part.

Another possibility is that the sinking plate cools the neighboring mantle and produces convection currents that move the plates. This last theory is attractive because it gives some hope of explaining the enclosed seas, such as the Sea of Japan. These seas have a typical oceanic floor, except that the

floor is overlaid by several kilometers of sediment. Their floors have probably been sinking for long periods. It seems possible that a sinking current of cooled mantle material on the upper side of the plate might be the cause of such deep basins. The enclosed seas are an important feature of the earth's surface, and seriously require explanation because, in addition to the enclosed seas that are developing at present behind island arcs, there are a number of older ones of possibly similar origin, such as the Gulf of Mexico, the Black Sea, and perhaps the North Sea.

1. According to the traditional view of the origin of the ocean basins, which of the following is sufficient to move the continental plates?

- (a) Increases in sedimentation on ocean floors
- (b) Spreading of ocean trenches
- (c) Differences in temperature under oceans and continents
- (d) Movement of mid-ocean ridges

2. It can be inferred from the passage that, of the following, the deepest sediments would be found in the

- (a) Indian Ocean
- (b) Black Sea
- (c) Mid-Atlantic
- (d) South Atlantic

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<p>3. The author refers to a “conveyor belt” in order to</p> <p>(a) illustrate the effects of convection in the mantle</p> <p>(b) show how temperature differences depend on the positions of the continents</p> <p>(c) demonstrate the linear nature of the Mid-Atlantic Ridge</p> <p>(d) describe the complicated motions made possible by back-coupling</p> <p>4. The author regards the traditional view of the origin of the oceans with</p> <p>(a) slight apprehension</p> <p>(b) absolute indifference</p> <p>(c) indignant anger</p> <p>(d) guarded skepticism</p> <p>5. According to the passage, which of the following are separated by a plate that is growing on both sides?</p> <p>(a) The Pacific Ocean and the Sea of Japan</p> <p>(b) The South Atlantic Ridge and the North Sea Ridge</p> <p>(c) The Gulf of Mexico and the South Atlantic Ridge</p> <p>(d) The Mid-Atlantic Ridge and the Indian Ocean Ridge</p> <p>6. Which of the following, if it could be demonstrated, would most support the traditional view of ocean formation?</p>	<p>(a) Convection usually occurs along lines.</p> <p>(b) The upper mantle behaves as a dense solid.</p> <p>(c) Sedimentation occurs at a constant rate.</p> <p>(d) Sinking plates cool the mantle.</p> <p>7. According to the passage, the floor of the Black Sea can best be compared to a</p> <p>(a) rapidly moving conveyor belt</p> <p>(b) slowly settling foundation</p> <p>(c) rapidly expanding balloon</p> <p>(d) violently erupting volcano</p> <p>8. Which of the following titles would best describe the content of the passage?</p> <p>(a) A Description of the Oceans of the World</p> <p>(b) Several Theories of Ocean Basin Formation</p> <p>(c) The Traditional View of the Oceans</p> <p>(d) Convection and Ocean Currents</p> <p>9.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-bottom: 1px solid black;"><u>Number of accidents</u></td> <td style="border-bottom: 1px solid black;">0</td> <td style="border-bottom: 1px solid black;">1</td> <td style="border-bottom: 1px solid black;">2</td> <td style="border-bottom: 1px solid black;">3</td> <td style="border-bottom: 1px solid black;">4</td> <td style="border-bottom: 1px solid black;">5</td> <td style="border-bottom: 1px solid black;">6</td> </tr> <tr> <td>Number of drivers</td> <td>17</td> <td>13</td> <td>21</td> <td>4</td> <td>2</td> <td>2</td> <td>1</td> </tr> </table> <p>(a) 0.5</p> <p>(b) 1</p>	<u>Number of accidents</u>	0	1	2	3	4	5	6	Number of drivers	17	13	21	4	2	2	1
<u>Number of accidents</u>	0	1	2	3	4	5	6										
Number of drivers	17	13	21	4	2	2	1										

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(c) 1.5

(d) 2

10. If $V = 12R / (r + R)$, then $R =$

(a) $Vr / (12 - V)$

(b) $Vr + V / 12$

(c) $Vr - 12$

(d) $V / r - 12$

11. The number 0.127 is how much greater than $1/8$?

(a) $\frac{1}{2}$

(b) $2/10$

(c) $1/50$

(d) $1/500$

12. Which of the following could not be the lengths of the sides of a right angled triangle?

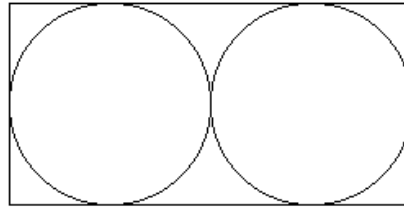
(a) 3, 4, 5

(b) 5, 12, 13

(c) 8, 15, 17

(d) 12, 15, 18

13.



Two equal circles are cut out of a rectangle of card of dimensions 16 by 8. The circles have the maximum diameter possible. What is the approximate area of the paper remaining after the circles have been cut out?

(a) 104

(b) 78

(c) 54

(d) 27

14.

$$\frac{a^2 - b^2}{a + b} =$$

If a and b are both positive, which of the following is a simplification of the expression above?

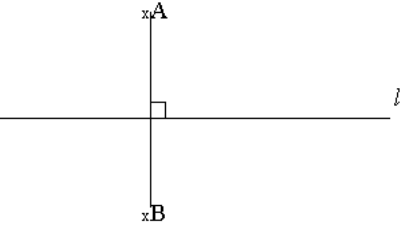
(a) $a^2 + b^2 + 1$

(b) $a + b$

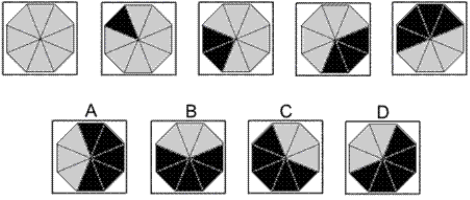
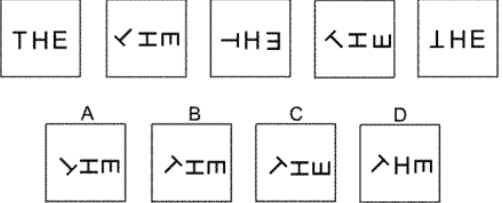
(c) $a - b$

(d) ab

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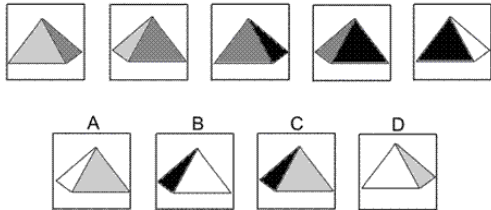
<p>15. $x = y - (50/y)$, where x and y are both > 0. If the value of y is doubled in the equation above, the value of x will</p> <p>(a) decrease</p> <p>(b) stay the same</p> <p>(c) increase four fold</p> <p>(d) increase to more than double</p> <p>16. Which of the following could be a solution of the equation $x = 4x - 3$</p> <p>(a) -1</p> <p>(b) -0.6</p> <p>(c) 0</p> <p>(d) 0.6</p> <p>17. The number of degrees that the hour hand of a clock moves through between noon and 2.30 in the afternoon of the same day is</p> <p>(a) 720</p> <p>(b) 180</p> <p>(c) 75</p> <p>(d) 65</p> <p>18. Jeff takes 20 minutes to jog around the race course one time, and 25 minutes to jog around a second time. What is his average speed in miles per hour for the whole jog if the course is 3 miles long?</p> <p>(a) 6</p>	<p>(b) 8</p> <p>(c) 10</p> <p>(d) 12</p> <p>19.</p> <div style="text-align: center;">  </div> <p>A and B are equidistant from the line l. How many circles can be drawn with their centres on line l and that pass through both A and B?</p> <p>(a) 1</p> <p>(b) 2</p> <p>(c) 4</p> <p>(d) >10</p> <p>20. A wheel has a diameter of x inches and a second wheel has a diameter of y inches. The first wheel covers a distance of d feet in 100 revolutions. How many revolutions does the second wheel make in covering d feet?</p> <p>(a) $100xy$</p> <p>(b) $100y - x$</p> <p>(c) $100x - y$</p> <p>(d) $100x / y$</p>
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<p>21. Window is to pane as book is to</p> <p>(a) novel</p> <p>(b) glass</p> <p>(c) cover</p> <p>(d) page</p>	<p>(a) arrogant</p> <p>(b) humble</p> <p>(c) joyful</p> <p>(d) suspicious</p>
<p>22. Secretly is to openly as silently is to</p> <p>(a) scarcely</p> <p>(b) impolitely</p> <p>(c) noisily</p> <p>(d) quietly</p>	<p>26.</p>  <p>(a) A</p> <p>(b) B</p> <p>(c) C</p> <p>(d) D</p>
<p>23. Artist is to painting as senator is to</p> <p>(a) attorney</p> <p>(b) law</p> <p>(c) politician</p> <p>(d) constituents</p>	<p>27.</p>  <p>(a) A</p> <p>(b) B</p> <p>(c) C</p> <p>(d) D</p>
<p>24. Play is to actor as concert is to</p> <p>(a) symphony</p> <p>(b) musician</p> <p>(c) piano</p> <p>(d) percussion</p>	<p>25. Careful is to cautious as boastful is to</p>

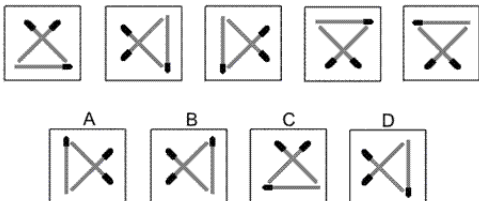
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28.



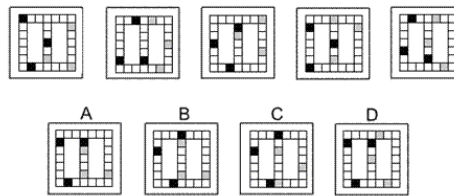
- (a) A
- (b) B
- (c) C
- (d) D

29.



- (a) A
- (b) B
- (c) C
- (d) D

30.



- (a) A
- (b) B
- (c) C
- (d) D

31. The mean or average score is higher than the median, which is obtained by ranking the scores and selecting the one in the middle. How does this affect the shape of the curve?

- (a) The curve is skewed to the left
- (b) The curve has a discontinuity between the mean and the median
- (c) The curve is flattened (kurtosis)
- (d) The curve is skewed to the right

32. In combinatorial analysis, the basic principle of counting provides a convenient way to calculate the number of possible outcomes for experiments. Let say you are given 3 caps, 4 shirts, 5 pants and 6 pairs of shoes. By using this principle, how many ways can you dress yourself?

- (a) $3 + 4 + 5 + 6 = 18$
- (b) $3 \times 4 \times 5 \times 6 = 360$
- (c) $3! + 4! + 5! + 6! = 870$
- (d) $3! \times 4! \times 5! \times 6! = 12441600$

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<p>33. Let say there are 8 contestants in a contest. There are $8P_3 = 336$ possible combinations for the top three spots. Here, the letter "P" stands for permutation. Which of the following formula is equivalent to nPr?</p> <p>(a) $n \times (n - 1) \times \dots \times (n - r)$</p> <p>(b) $n \times (n - 1) \times \dots \times (n - r + 1)$</p> <p>(c) $n \times (n - 1) \times \dots \times 3 \times 2 \times 1$</p> <p>(d) $n \times (n - 1) \times \dots \times (n - r - 1)$</p> <p>34. You are given 10 balls and you are to choose 3 balls from these 10 balls. So, you have $10C_3 = 120$ ways to choose it. Here, the letter "C" represents "combination". Is it true that $nCr = nC(n-r)$?</p> <p>(a) Yes</p> <p>(b) No</p> <p>(c)</p> <p>(d)</p> <p>35. The binomial theorem provides a convenient way to calculate the value of the coefficients for all the terms in any expansion involving 2 unknowns. The values of these coefficients can also be obtained from which famous mathematical figures?</p> <p>(a) Pentagon</p> <p>(b) Pascal's triangles</p> <p>(c) Pythagorean triplets</p> <p>(d) Permutation tree</p>	<p>Existentialism is a philosophical and literary movement that gained prominence in the mid-twentieth century. Primarily associated with the work of Jean-Paul Sartre and Parisian café society, existentialism was influenced by the earlier work of the Danish theologian Soren Kierkegaard and the German philosopher Friedrich Nietzsche. Although difficult to define, existentialism can be summarised by its emphasis on human existence over human essence, and the centrality of an individual's freedom of choice. It is an atheist philosophy that rejects moral rules, but not responsibility. Though each individual is free, he or she must co-exist with other individuals' freedom. According to existentialists, the only certainty in life is death, the recognition of which leads to despair. This existential anguish, however, can be transcended when an individual undertakes a project that will give his or her life meaning. Existentialist links to social and political causes, such as the opposition of fascism, led to its widespread popularity in the 1960s</p> <p>36. The first existentialists were Soren Kierkegaard and Friedrich Nietzsche</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p> <p>37. Although existentialism eschews moral codes, it does not suggest that individuals act without regard for others</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p>
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<p>38. Followers of existential philosophy suffer from depression</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p>	<p>42. Choose the word that is a necessary part of: bonus</p> <p>(a) reward</p> <p>(b) raise</p> <p>(c) cash</p> <p>(d) employer</p>
<p>39. Existentialism views mortality as life's sole inevitability</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p>	<p>43. Choose the word that is a necessary part of: antique</p> <p>(a) rarity</p> <p>(b) artifact</p> <p>(c) aged</p> <p>(d) prehistoric</p>
<p>40. Existentialism became a popular political movement in the 1960s</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p>	<p>44. Choose the word that is a necessary part of: itinerary</p> <p>(a) map</p> <p>(b) route</p> <p>(c) travel</p> <p>(d) guidebook</p>
<p>41. Choose the word that is a necessary part of: culture</p> <p>(a) civility</p> <p>(b) education</p> <p>(c) agriculture</p> <p>(d) customs</p>	<p>45. Choose the word that is a necessary part of: orchestra</p> <p>(a) violin</p> <p>(b) stage</p> <p>(c) musician</p> <p>(d) soloist</p>

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<p>46. Choose the word that is a necessary part of: knowledge</p> <p>(a) school</p> <p>(b) teacher</p> <p>(c) textbook</p> <p>(d) learning</p> <p>47. Choose the word that is a necessary part of: dimension</p> <p>(a) compass</p> <p>(b) ruler</p> <p>(c) inch</p> <p>(d) measure</p> <p>48. Choose the word that is a necessary part of: sustenance</p> <p>(a) nourishment</p> <p>(b) water</p> <p>(c) grains</p> <p>(d) menu</p> <p>49. From (1, 2, 3, 4, 5, 6), one number is picked out and replaced and one number is picked out again. If the sum of the 2 numbers is 8, what is the probability that the 2 numbers included the number 5?</p> <p>(a) $\frac{1}{3}$</p> <p>(b) $\frac{1}{5}$</p> <p>(c) $\frac{2}{3}$</p>	<p>(d) $\frac{2}{5}$</p> <p>50. Each participant in a certain study was assigned a sequence of 3 different letters from the set {A, B, C, D, E, F, G, H}. If no sequence was assigned to more than one participant and if 36 of the possible sequences were not assigned, what was the number of participants in the study? (Note, for example, that the sequence A, B, C is different from the sequence C, B, A.)</p> <p>(a) 200</p> <p>(b) 250</p> <p>(c) 300</p> <p>(d) 350</p> <p>Although commonly referred to as tidal waves, tsunamis are not caused by tides. A tsunami is a series of fast-moving waves created by a disturbance above or below sea level. Although earthquakes are the most common cause of tsunamis, volcanic eruptions and landslides can also trigger a tsunami. A tsunami can occur in any large body of water, however they typically occur in the Pacific Ocean. In open water, a tsunami travels at speeds of up to 800 km per hour, with wavelengths several hundred kilometres long but wave heights under one metre. When it approaches land, however, a tsunami slows, its wave length compressing and its height increasing. In 2004, a catastrophic tsunami resulting from an earthquake in the Indian Ocean claimed more than 200,000 lives with 20-metres-high waves. While scientists cannot predict when a tsunami will occur, seismologists monitoring submarine earthquakes can forecast a tsunami's arrival and impact using wave theory and measurement technology, thus enabling authorities to issue tsunami warnings.</p>
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<p>51. Tidal wave is a widely used misnomer for a tsunami</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p> <p>52. Earthquakes below the Indian Ocean represent the main cause of tsunamis</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p> <p>53. The 2004 Indian Ocean tsunami was the most devastating tsunami in recent history</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p> <p>54. As a tsunami reaches the shore, its speed and its wave height increase</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p>	<p>55. Using wave measurement methodology, scientists can predict when a tsunami will occur</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Consolidated Income Statements (£millions)</th> <th style="text-align: center; border-bottom: 1px solid black;">Competitor A</th> <th style="text-align: center; border-bottom: 1px solid black;">Competitor B</th> <th style="text-align: center; border-bottom: 1px solid black;">Competitor C</th> </tr> </thead> <tbody> <tr> <td style="border-top: 2px solid black;">Revenue</td> <td style="text-align: center;">580</td> <td style="text-align: center;">632</td> <td style="text-align: center;">600</td> </tr> <tr> <td>Gross profit</td> <td style="text-align: center;">128</td> <td style="text-align: center;">148</td> <td style="text-align: center;">147</td> </tr> <tr> <td>Operational profit</td> <td style="text-align: center;">108</td> <td style="text-align: center;">128</td> <td style="text-align: center;">131</td> </tr> <tr> <td>Profit before tax</td> <td style="text-align: center;">90</td> <td style="text-align: center;">112</td> <td style="text-align: center;">117</td> </tr> <tr> <td>Corporation tax*</td> <td style="text-align: center;">-27</td> <td style="text-align: center;">-33.6</td> <td style="text-align: center;">-35.1</td> </tr> <tr> <td style="border-bottom: 2px solid black;">Profit after tax</td> <td style="text-align: center; border-bottom: 2px solid black;">63</td> <td style="text-align: center; border-bottom: 2px solid black;">78.4</td> <td style="text-align: center; border-bottom: 2px solid black;">81.9</td> </tr> </tbody> </table> <p>*Tax = 30%</p> <p>56. If Profit before tax increases by 15% for Competitor B and decreases by 8% for Competitor A, what is the difference between Competitor A and Competitor B's corporation tax payments (to the nearest £million)?</p>	Consolidated Income Statements (£millions)	Competitor A	Competitor B	Competitor C	Revenue	580	632	600	Gross profit	128	148	147	Operational profit	108	128	131	Profit before tax	90	112	117	Corporation tax*	-27	-33.6	-35.1	Profit after tax	63	78.4	81.9
Consolidated Income Statements (£millions)	Competitor A	Competitor B	Competitor C																										
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(a) £10 million	(b) £141 million
(b) £12 million	(c) £142 million
(c) £14 million	(d) £143 million
(d) £16 million	60. Competitor C moves to a country charging 15% corporation tax and corporation tax falls to 22% for Competitors A and B. What is the total corporation tax payable for the 3 competitors (based upon the Profit before tax figures shown)?
57. Competitor B and Competitor C choose to declare their Revenues in \$ and Euros respectively. What are these figures? (Use the exchange rates 1£ = \$1.66; 1£ = €1.15).	(a) £62 million
(a) \$1,043 million (Competitor B); €708 million (Competitor C)	(b) £46 million
(b) \$1,049 million (Competitor B); €690 million (Competitor C)	(c) £26 million
(c) \$1,049 million (Competitor B); €720 million (Competitor C)	(d) £25 million
(d) \$720 million (Competitor B); €1,055 million (Competitor C)	61. WAITRESS : RESTAURANT
58. What would be the difference in Euros if Competitor A used an exchange rate of 1£ = €1.20, rather than 1£ = €1.15, when calculating its Profit after tax?	(a) doctor : diagnosis
(a) €0.05 million	(b) actor : role
(b) €1.15 million	(c) driver : truck
(c) €2.05 million	(d) teacher : school
(d) €3.15 million	62. FINCH : BIRD
59. What was the average Gross profit across the 3 competitors (to the nearest £10million)?	(a) frog : toad
(a) £140 million	(b) elephant : reptile
	(c) Dalmatian : dog
	(d) collie : marsupial

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63. RAIN : DRIZZLE

- (a) swim : dive
- (b) hop : shuffle
- (c) juggle : bounce
- (d) run : jog

Climatic conditions are delicately adjusted to the composition of the Earth's atmosphere. If there were a change in the atmosphere—for example, in the relative proportions of atmospheric gases—the climate would probably change also. A slight increase in water vapor, for instance, would increase the heat-retaining capacity of the atmosphere and would lead to a rise in global temperatures. In contrast, a large increase in water vapor would increase the thickness and extent of the cloud layer, reducing the amount of solar energy reaching the Earth's surface. The level of carbon dioxide, CO₂, in the atmosphere has an important effect on climatic change. Most of the Earth's incoming energy is short-wavelength radiation, which tends to pass through atmospheric CO₂ easily. The Earth, however, reradiates much of the received energy as long-wavelength radiation, which CO₂ absorbs and then re-emits toward the Earth. This phenomenon, known as the greenhouse effect, can result in an increase in the surface temperature of a planet. An extreme example of the effect is shown by Venus, a planet covered by heavy clouds composed mostly of CO₂, whose surface temperatures have been measured at 430 degree. If the CO₂ content of the atmosphere is reduced, the temperature falls. According to one respectable theory, if the atmospheric CO₂ concentration were halved, the Earth would become completely covered with ice. Another equally respectable theory, however, states that a halving of the CO₂ concentration would lead only to a reduction in global temperatures of 3 degree.

If, because of an increase in forest fires or volcanic activity, the CO₂ content of the atmosphere increased, a warmer climate would be produced. Plant growth, which relies on both the warmth and the availability of CO₂ would probably increase. As a consequence, plants would use more and more CO₂. Eventually CO₂ levels would diminish and the climate, in turn, would become cooler. With reduced temperatures many plants would die; CO₂ would thereby be returned to the atmosphere and gradually the temperature would rise again. Thus, if this process occurred, there might be a long-term oscillation in the amount of CO₂ present in the atmosphere, with regular temperature increases and decreases of a set magnitude.

Some climatologists argue that the burning of fossil fuels has raised the level of CO₂ in the atmosphere and has caused a global temperature increase of at least 1°. But a supposed global temperature rise of 1 degree may in reality be only several regional temperature increases, restricted to areas where there are many meteorological stations and caused simply by shifts in the pattern of atmospheric circulation. Other areas, for example the Southern Hemisphere oceanic zone, may be experiencing an equivalent temperature decrease that is unrecognized because of the shortage of meteorological recording stations.

64. The passage supplies information for answering which of the following questions?

- (a) Why are projections of the effects of changes in water vapor levels on the climate so inaccurate?
- (b) What are the steps in the process that takes place as CO₂ absorbs long-wavelength radiation?
- (c) How might our understanding of the greenhouse effect be improved if the burning of fossil fuels were decreased?

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<p>(d) What might cause a series of regular increases and decreases in the amount of CO₂ in the atmosphere?</p> <p>65. The author is primarily concerned with</p> <p>(a) explaining the effects that the burning of fossil fuels might have on climate</p> <p>(b) illustrating the effects of CO₂ on atmospheric radiation</p> <p>(c) discussing effects that changes in the CO₂ level in the atmosphere might have on climate</p> <p>(d) challenging hypotheses about the effects of water vapor and CO₂ on climate</p> <p>66. The passage suggests that a large decrease in the amount of CO₂ in the atmosphere would result in</p> <p>(a) at least a slight decrease in global temperatures</p> <p>(b) at the most a slight increase in short-wavelength radiation reaching the Earth</p> <p>(c) a slight long-term increase in global temperatures</p> <p>(d) a large long-term increase in the amount of volcanic activity</p> <p>67. The author refers to Venus primarily in order to</p> <p>(a) show the inherent weakness of the greenhouse effect theory</p> <p>(b) show that the greenhouse effect works on other planets but not on Earth</p> <p>(c) support the argument that the CO₂ level in the atmosphere has a significant effect on climate</p>	<p>(d) support the contention that as water vapor increase, the amount of CO₂ increases</p> <p>68. The passage suggests that if there were a slight global warming at the present time, it would be</p> <p>(a) easy to measure the exact increase in temperature because of the abundance of temperature recording stations throughout the world</p> <p>(b) difficult to measure the increase of CO₂ in the atmosphere because of local variations in amounts</p> <p>(c) easy to demonstrate the effects of the warming on the water vapor in the atmosphere</p> <p>(d) difficult to prove that the warming was caused by the burning of fossil fuels</p> <p>69. The discussion of climate in the passage suggests which of the following conclusion?</p> <p>I. Climate is not perfectly stable, and slight regional temperature variations can be considered a normal feature of the environment.</p> <p>II. We are unable at present to measure global temperature changes precisely.</p> <p>III. The most important cause of regional climatic fluctuations is the change in CO₂ levels in the atmosphere.</p> <p>(a) I only</p> <p>(b) III only</p> <p>(c) I and II only</p> <p>(d) II and III only</p>
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<p>70. All of the following can be found in the author's discussion of climate EXCEPT</p> <p>(a) a statement about the effects of increased volcanic activity on the Earth's temperatures</p> <p>(b) an indication of the effect of an increase in water vapor in the atmosphere</p> <p>(c) a contrast between two theories about the effects of a lowering of CO₂ levels in the atmosphere</p> <p>(d) a generalization about the efficiency of meteorological recording stations</p> <p>The transfer of heat and water vapor from the ocean to the air above depends on a disequilibrium at the interface of the water and the air. Within about a millimeter of the water, air temperature is close to that of the surface water, and the air is nearly saturated with water vapor. But the differences, however small, are crucial, and the disequilibrium is maintained by air near the surface mixing with air higher up, which is typically appreciably cooler and lower in water-vapor content. The air is mixed by means of turbulence that depends on the wind for its energy. As wind speed increases, so does turbulence, and thus the rate of heat and moisture transfer. Detailed understanding of this phenomenon awaits further study. An interacting—and complicating—phenomenon is wind-to-water transfer of momentum that occurs when waves are formed. When the wind makes waves, it transfers important amounts of energy—energy that is therefore not available to provide turbulence.</p> <p>71. The primary purpose of the passage is to</p> <p>(a) resolve a controversy</p> <p>(b) describe a phenomenon</p>	<p>(c) outline a theory</p> <p>(d) confirm research findings</p> <p>72. According to the passage, wind over the ocean generally does which of the following?</p> <p>I. Causes relatively cool, dry air to come into proximity with the ocean surface.</p> <p>II. Maintains a steady rate of heat and moisture transfer between the ocean and the air.</p> <p>III. Causes frequent changes in the temperature of the water at the ocean's surface.</p> <p>(a) I only</p> <p>(b) II only</p> <p>(c) I and II only</p> <p>(d) II and III only</p> <p>73. It can be inferred from the passage that the author regards current knowledge about heat and moisture transfer from the ocean to air as</p> <p>(a) revolutionary</p> <p>(b) inconsequential</p> <p>(c) outdated</p> <p>(d) incomplete</p>
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<p>74. The passage suggests that if on a certain day the wind were to decrease until there was no wind at all which of the following would occur?</p> <p>(a) The air closest to the ocean surface would become saturated with water vapor.</p> <p>(b) The air closest to the ocean surface would be warmer than the water.</p> <p>(c) The amount of moisture in the air closest to the ocean surface would decrease.</p> <p>(d) The rate of heat and moisture transfer would increase.</p> <p>75. With the increase in the speed of the wind which of the following also increase</p> <ol style="list-style-type: none">1. Turbulence2. Rate of heat transfer3. Rate of moisture transfer <p>(a) 1 only</p> <p>(b) 1 and 2</p> <p>(c) 1 and 3</p> <p>(d) 1, 2 and 3</p> <p>76. Here are some words translated from an artificial language. jalkamofti means happy birthday moftihoze means birthday party mentogunn means goodness Which word could mean "happiness"?</p> <p>(a) jalkagunn</p> <p>(b) mentohoze</p> <p>(c) moftihoze</p>	<p>(d) hozemento</p> <p>The questions from 77-80 ask you to match definitions to particular situations. For each question, you will be given a definition and four possible answer choices. Read each definition and all four choices carefully, and find the answer that provides the best example of the given definition. Answer each question solely on the basis of the definition given.</p> <p>77. Establishing a Power of Attorney occurs when a legal document is created that gives one individual the authority to act for another. Which situation below is the best example of Establishing a Power of Attorney?</p> <p>(a) Louise is selling her house and she hires a lawyer to review the contract.</p> <p>(b) Simone's mother can no longer get to the bank to cash her checks and make deposits, so she has taken legal steps to enable Simone to do these things for her.</p> <p>(c) Jack's father is elderly and Jack thinks he is no longer able to make decisions for himself.</p> <p>(d) At her daughter's urging, Mrs. Lenox opens up a retirement account with the local bank.</p> <p>78. Erratic Behavior occurs when an individual acts in a manner that lacks consistency, regularity, and uniformity. Which situation below is the best example of Erratic Behavior?</p> <p>(a) Julia cannot contain her anger whenever the subject of local politics is discussed.</p> <p>(b) Martin has just been told that he is being laid off. Before leaving his supervisor's office, he punches a hole in the door.</p>
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(c) Rhonda has visited the dealership several times, but she still cannot decide which car to buy.

(d) In the past month, Jeffrey, who has been a model employee for three years, has repeatedly called in sick, forgotten important meetings, and been verbally abusive to colleagues.

79. Posthumous Publication occurs when a book is published after the author's death. Which situation below is the best example of Posthumous Publication?

(a) Richard's illness took his life before he was able to enjoy the amazing early reviews of his novel.

(b) Melissa's publisher cancels her book contract after she fails to deliver the manuscript on time.

(c) Clarence never thought he'd live to see the third book in his trilogy published.

(d) Elizabeth is honored with a prestigious literary award for her writing career and her daughter accepts the award on behalf of her deceased mother.

80. The school principal has received complaints from parents about bullying in the school yard during recess. He wants to investigate and end this situation as soon as possible, so he has asked the recess aides to watch closely. Which situation should the recess aides report to the principal?

(a) A girl is sitting glumly on a bench reading a book and not interacting with her peers.

(b) Four girls are surrounding another girl and seem to have possession of her backpack.

(c) Two boys are playing a one-on-one game of basketball and are arguing over the last basket scored.

(d) Three boys are huddled over a handheld video game

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Answer Sheet

	A	B	C	D		A	B	C	D		A	B	C	D		A	B	C	D			
1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		21	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		41	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		61	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		22	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		42	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		62	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		23	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		43	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		63	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		24	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		44	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		64	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		25	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		45	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		65	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		26	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		46	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		66	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		27	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		47	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		67	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		28	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		48	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		68	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		29	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		49	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		69	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		30	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		50	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		70	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		31	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		51	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		71	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		32	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		52	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		72	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		33	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		53	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		73	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		34	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		54	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		74	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		35	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		55	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		75	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		36	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		56	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		76	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		37	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		57	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		77	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		38	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		58	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		78	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		39	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		59	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		79	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		40	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		60	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		80	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>