

Model Test Paper 8  
General Study Paper II

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TEST BOOKLET  
GENERAL STUDIES  
Paper-II

D

Time Allowed : Two Hours

Maximum Marks : 200

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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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**Model Test Paper 8**  
**General Study Paper II**

<p>It was once assumed that all living things could be divided into two fundamental and exhaustive categories. Multicellular plants and animals, as well as many unicellular organisms, are eukaryotic—their large, complex cells have a well-formed nucleus and many organelles. On the other hand, the true bacteria are prokaryotic cell, which are simple and lack a nucleus. The distinction between eukaryotes and bacteria, initially defined in terms of subcellular structures visible with a microscope, was ultimately carried to the molecular level. Here prokaryotic and eukaryotic cells have many features in common. For instance, they translate genetic information into proteins according to the same type of genetic coding. But even where the molecular processes are the same, the details in the two forms are different and characteristic of the respective forms. For example, the amino acid sequences of various enzymes tend to be typically prokaryotic or eukaryotic. The differences between the groups and the similarities within each group made it seem certain to most biologists that the tree of life had only two stems. Moreover, arguments pointing out the extent of both structural and functional differences between eukaryotes and true bacteria convinced many biologists that the precursors of the eukaryotes must have diverged from the common ancestor before the bacteria arose. Although much of this picture has been sustained by more recent research, it seems fundamentally wrong in one respect. Among the bacteria, there are organisms that are significantly different both from the cells of eukaryotes and from the true bacteria, and it now appears that there are three stems in the tree of life. New techniques for determining the molecular sequence of the RNA of organisms have produced evolutionary information about the degree to which organisms are related, the time since they diverged from a common ancestor, and the reconstruction of ancestral versions of genes. These techniques have strongly suggested that although the true bacteria indeed form a large coherent group,</p>	<p>certain other bacteria, the archaeobacteria, which are also prokaryotes and which resemble true bacteria, represent a distinct evolutionary branch that far antedates the common ancestor of all true bacteria.</p> <p>1. The passage is primarily concerned with</p> <p>(a) detailing the evidence that has led most biologists to replace the trichotomous picture of living organisms with a dichotomous one</p> <p>(b) outlining the factors that have contributed to the current hypothesis concerning the number of basic categories of living organisms</p> <p>(c) evaluating experiments that have resulted in proof that the prokaryotes are more ancient than had been expected</p> <p>(d) summarizing the differences in structure and function found among true bacteria, archaeobacteria, and eukaryotes</p> <p>2. According to the passage, investigations of eukaryotic and prokaryotic cells at the molecular level supported the conclusion that</p> <p>(a) most eukaryotic organisms are unicellular</p> <p>(b) complex cells have well-formed nuclei</p> <p>(c) prokaryotes and eukaryotes form two fundamental categories</p> <p>(d) subcellular structures are visible with a microscope</p> <p>3. According to the passage, which of the following statements about the two-category hypothesis is likely to be true?</p> <p>(a) It is promising because it explains the presence of true bacteria-like organisms such as organelles in eukaryotic cells.</p>
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**Model Test Paper 8**  
**General Study Paper II**

<p>(b) It is promising because it explains why eukaryotic cells, unlike prokaryotic cells, tend to form multicellular organisms.</p> <p>(c) It is flawed because it fails to account for the great variety among eukaryotic organisms.</p> <p>(d) It is flawed because it fails to recognize an important distinction among prokaryotes.</p> <p>4. It can be inferred from the passage that which of the following have recently been compared in order to clarify the fundamental classifications of living things?</p> <p>(a) The genetic coding in true bacteria and that in other prokaryotes</p> <p>(b) The organelle structures of archaebacteria, true bacteria, and eukaryotes</p> <p>(c) The cellular structures of multicellular organisms and unicellular organisms</p> <p>(d) The molecular sequences in eukaryotic RNA, true bacterial RNA, and archaebacterial RNA</p> <p>5. If the “new techniques” were applied in studies of biological classifications other than bacteria, which of the following is most likely?</p> <p>(a) Some of those classifications will have to be reevaluated.</p> <p>(b) Many species of bacteria will be reclassified.</p> <p>(c) It will be determined that there are four main categories of living things rather than three.</p> <p>(d) It will be found that true bacteria are much older than eukaryotes.</p>	<p>6. According to the passage, researchers working under the two-category hypothesis were correct in thinking that</p> <p>(a) prokaryotes form a coherent group</p> <p>(b) the common ancestor of all living things had complex properties</p> <p>(c) eukaryotes are fundamentally different from true bacteria</p> <p>(d) true bacteria are just as complex as eukaryotes</p> <p>7. All of the following statements are supported by the passage EXCEPT:</p> <p>(a) True bacteria form a distinct evolutionary group.</p> <p>(b) Amino acid sequences of enzymes are uniform for eukaryotic and prokaryotic organisms.</p> <p>(c) Archaebacteria are prokaryotes that resemble true bacteria.</p> <p>(d) True bacteria and eukaryotes employ similar types of genetic coding.</p> <p>8. The author’s attitude toward the view that living things are divided into three categories is best described as one of</p> <p>(a) tentative acceptance</p> <p>(b) mild skepticism</p> <p>(c) limited denial</p> <p>(d) studious criticism</p>
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**Model Test Paper 8**  
**General Study Paper II**

Although numbers of animals in a given region may fluctuate from year to year, the fluctuations are often temporary and, over long periods, trivial. Scientists have advanced three theories of population control to account for this relative constancy.

The first theory attributes a relatively constant population to periodic climatic catastrophes that decimate populations with such frequency as to prevent them from exceeding some particular limit. In the case of small organisms with short life cycles, climatic changes need not be catastrophic: normal seasonal changes in photoperiod (daily amount of sunlight), for example, can govern population growth. This theory—the density-independent view—asserts that climatic factors exert the same regulatory effect on population regardless of the number of individuals in a region.

A second theory argues that population growth is primarily density-dependent—that is, the rate of growth of a population in a region decreases as the number of animals increases. The mechanisms that manage regulation may vary. For example, as numbers increase, the food supply would probably diminish, which would increase mortality. In addition, as Lotka and Volterra have shown, predators can find prey more easily in high-density populations. Other regulators include physiological control mechanisms: for example, Christian and Davis have demonstrated how the crowding that results from a rise in numbers may bring about hormonal changes in the pituitary and adrenal glands that in turn may regulate population by lowering sexual activity and inhibiting sexual maturation. There is evidence that these effects may persist for three generations in the absence of the original provocation. One challenge for density-dependent theorists is to develop models that would allow the precise prediction of the effects of crowding.

A third theory, proposed by Wynne-Edwards and

termed “epideictic,” argues that organisms have evolved a “code” in the form of social or epideictic behavior displays, such as winter-roosting aggregations or group vocalizing; such codes provide organisms with information on population size in a region so that they can, if necessary, exercise reproductive restraint. However, Wynne-Edwards’ theory, linking animal social behavior and population control, has been challenged, with some justification, by several studies.

9. The primary purpose of the passage is to

- (a) argue against those scientists who maintain that animal populations tend to fluctuate
- (b) compare and contrast the density-dependent and epideictic theories of population control
- (c) provide example of some of the ways in which animals exercise reproductive restraint to control their own numbers
- (d) summarize a number of scientific theories that attempt to explain why animal populations do not exceed certain limits

10. It can be inferred from the passage that proponents of the density-dependent theory of population control have not yet been able to

- (a) use their theory to explain the population growth of organisms with short life cycles
- (b) reproduce the results of the study of Christian and Davis
- (c) explain adequately why the numbers of a population can increase as the population’s rate of growth decreases
- (d) make sufficiently accurate predictions about the effects of crowding

**Model Test Paper 8**  
**General Study Paper II**

<p>11. Which of the following, if true, would best support the density-dependent theory of population control as it is described in the passage?</p> <p>(a) As the number of foxes in Minnesota decrease, the growth rate of this population of foxes begins to increase.</p> <p>(b) As the number of woodpeckers in Vermont decreases, the growth rate of this population of woodpeckers also begins to decrease.</p> <p>(c) As the number of prairie dogs in Oklahoma increases, the growth rate of this population of prairie dogs also begins to increase.</p> <p>(d) After the number of beavers in Tennessee decreases, the number of predators of these beavers begins to increase.</p> <p>12. According to the Wynne-Edwards theory as it is described in the passage, epideictic behavior displays serve the function of</p> <p>(a) determining roosting aggregations</p> <p>(b) locating food</p> <p>(c) attracting predators</p> <p>(d) regulating sexual activity</p> <p>13. The challenge posed to the Wynne-Edwards-theory by several studies is regarded by the author with</p> <p>(a) complete indifference</p> <p>(b) qualified acceptance</p> <p>(c) skeptical amusement</p> <p>(d) perplexed astonishment</p>	<p>14. Which of the following statements would provide the most of logical continuation of the final paragraph of the passage?</p> <p>(a) Thus Wynne-Edwards' theory raises serious questions about the constancy of animal population in a region.</p> <p>(b) Because Wynne-Edwards' theory is able to explain more kinds of animal behavior than is the density-dependent theory, epideictic explanations of population regulation are now widely accepted.</p> <p>(c) The results of one study, for instance, have suggested that group vocalizing is more often used to defend territory than to provide information about population density.</p> <p>(d) Some of these studies have, in fact, worked out a systematic and complex code of social behavior that can regulate population size.</p> <p>15. Choose the word that is a necessary part of: cell</p> <p>(a) chlorophyll</p> <p>(b) nucleus</p> <p>(c) nerve</p> <p>(d) human</p> <p>16. Choose the word that is a necessary part of: champion</p> <p>(a) running</p> <p>(b) swimming</p> <p>(c) winning</p> <p>(d) speaking</p>
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**Model Test Paper 8**  
**General Study Paper II**

17. Choose the word that is a necessary part of:  
glacier

- (a) mountain
- (b) winter
- (c) prehistory
- (d) ice

18. Cup is to coffee as bowl is to

- (a) dish
- (b) soup
- (c) spoon
- (d) food

19. Exercise is to gym as eating is to

- (a) food
- (b) dieting
- (c) fitness
- (d) restaurant

20. Oar is to rowboat as foot is to

- (a) running
- (b) sneaker
- (c) skateboard
- (d) jumping

**TOTAL SALES (£millions)**

<b>Region</b>	Previous Year	Current Year	Next Year's Projection
Northern	310	310	320
Southern	170	160	165
Eastern	290	300	275
Western	255	280	270
Central	110	90	125

21. If the sales projections for next year prove accurate, which region will have maintained or increased sales levels each year from the previous year to next year?

- (a) Northern region
- (b) Southern region
- (c) Eastern region
- (d) Western region

22. What is the absolute difference between the lowest and the highest performing region (to the nearest £million) in the current year?

- (a) £216 million
- (b) £217 million
- (c) £218 million
- (d) £220 million

**Model Test Paper 8**  
**General Study Paper II**

23. If next year's forecasts are scaled back by a quarter for the Northern and Western region, and by a fifth for the Southern and Eastern regions, what will be the total projected sales for all 5 regions?

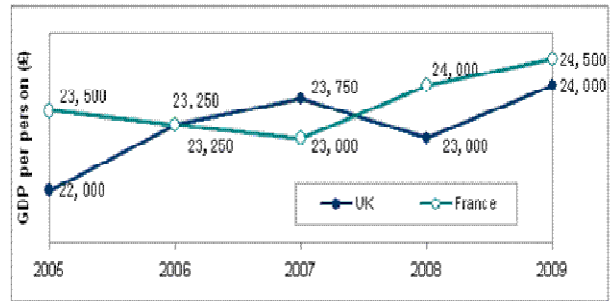
- (a) £1,155 million
- (b) £924 million
- (c) £919.50 million
- (d) £942 million

24. What were the ratios for the Central: Eastern regional sales for the Previous Year compared to the Current Year?

- (a) 9:30 (Previous Year); 3:11 (Current Year)
- (b) 20:50 (Previous Year); 3:11 (Current Year)
- (c) 10:30 (Previous Year); 5:11 (Current Year)
- (d) 11:29 (Previous Year); 3:10 (Current Year)

25. Put the regions in increasing order of total combined sales for the current year and next year's projection

- (a) Central, Southern, Western, Eastern, Northern
- (b) Southern, Central, Western, Eastern, Northern
- (c) Central, Western, Southern, Eastern, Northern
- (d) Central, Southern, Western, Northern, Eastern



2009	Country's Gross Domestic Product (£billion)	GDP Per person (£1000s)
UK	2.05	24
France	2.4	24.5
Germany	3.1	25.7
Spain	1.4	20.5
Italy	1.95	23.6

26. In which year (or years) was there more than a 3.3% difference in the GDP per person for France compared to the UK?

- (a) 2005, 2007
- (b) 2006, 2008
- (c) 2007, 2008
- (d) 2008, 2005

27. Which of the following statements is false?

- (a) Germany has the highest GDP of the countries shown.
- (b) Germany's GDP is over 20% higher than the France's GDP in 2009.
- (c) The 2005-2009 range of UK GDP per person is £23,500-£24,500.
- (d) The average GDP per country for the 5 countries shown is £2.18 billion.

**Model Test Paper 8  
General Study Paper II**

28. Which two countries had the smallest difference in GDP per person in 2009?

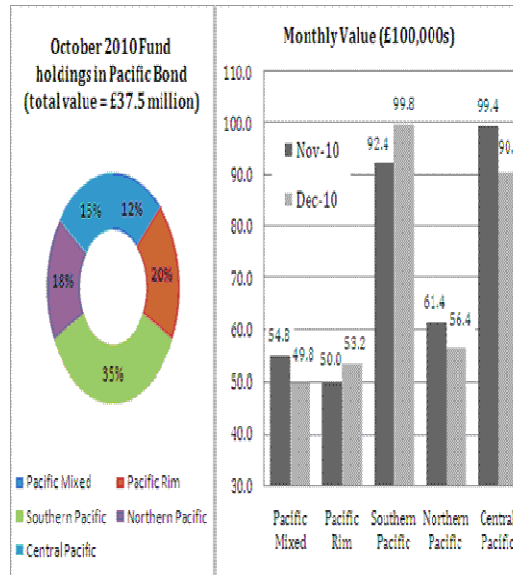
- (a) UK, Italy
- (b) France, Italy
- (c) Germany, Italy
- (d) Spain, Italy

29. Between which years were the GDPs per person increasing in both France and the UK?

- (a) 2008-2009
- (b) 2007-2008
- (c) 2006-2007
- (d) Cannot tell from data

30. What was the average GDP per person for France and the UK across the 5 years shown?

- (a) £23,500 (France); £23,200 (UK)
- (b) £23,650 (France); £23,500 (UK)
- (c) £23,500 (France); £23,000 (UK)
- (d) £23,650 (France); £23,200 (UK)



31. What was the 2010 percentage change in the value of the Pacific Rim holding between October and November (to the nearest percent)?

- (a) 41% less
- (b) 41% more
- (c) 36% less
- (d) 33% less

32. What was the ratio of Pacific Rim: Southern Pacific holdings in October 2010?

- (a) 3:2
- (b) 2:3
- (c) 4:5
- (d) 4:7



**Model Test Paper 8**  
**General Study Paper II**

<p>33. In October 2010 which two Pacific Bond fund holdings when combined had the same value as Southern Pacific holdings?</p> <p>(a) Northern Pacific and Central Pacific</p> <p>(b) Central Pacific and Pacific Rim</p> <p>(c) Pacific Mixed and Pacific Rim</p> <p>(d) Pacific Mixed and Northern Pacific</p> <p>34. Which of the following represents the largest amount?</p> <p>(a) October's Pacific Mixed holding</p> <p>(b) Average November value of each of the 5 holdings</p> <p>(c) November value of holdings in Northern Pacific</p> <p>(d) 70% of November's value of holdings in Southern Pacific</p> <p>35. In October 2010 what fraction of the total Pacific Bond did the Northern Pacific and Pacific Mixed fund holdings represent?</p> <p>(a) 1/5</p> <p>(b) 1/10</p> <p>(c) 1/4</p> <p>(d) 3/10</p> <p>36. 9 16 23 30 37 44 51 --- ----</p> <p>(a) 59 66</p> <p>(b) 56 62</p>	<p>(c) 58 66</p> <p>(d) 58 65</p> <p>Britain is still firmly committed to the EXOMars Robot project even though the scope and the cost have grown in the three years since it was first initiated. The shape of the project has changed dramatically, mainly due to the increased expectations of scientists. According to the ESA, this change in direction justifies the almost doubling of the original budget. The increased cost will, however, have to be met by the participating countries that originally signed up to fund this programme. Both Italy, the project leader, which provided much of the initial programme funding, and Britain, will have to significantly increase their share of funding for this project. Britain considers that this project makes the most of its expertise in robotics. To date Britain has not been involved in other high-profile ESA programmes such as the Columbus science laboratory and the Ariane Rocket project. The ESA now hopes to send the robot to Mars in 2016.</p> <p>37. Italy and Britain are covering the cost of the ESA's EXOMars Robot project and the costs have risen significantly over the past three years</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p>
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**Model Test Paper 8**  
**General Study Paper II**

<p>38. Britain has accepted that the change in mission direction justifies the near doubling of the budget</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p> <p>39. Historically, Britain has tried to avoid ESA high-profile missions</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p> <p>Some commentators argue that in times of global economic uncertainty governments should be boosting flagging economies by investing in major infrastructure projects. Many people are of the opinion that governments should grasp the opportunities presented to tackle global climate change at the same time as stimulating the economy, by using this public sector investment to move towards a new low-carbon infrastructure which would be an effective way of reducing carbon emissions and of ensuring security of energy supplies. They claim investment is needed in projects like renewable energy generation, modernising buildings to be more energy efficient, improving transport networks and even building pipelines to carry captured CO<sub>2</sub> to undersea storage facilities. They acknowledge, however, that the political will has to be found and that this has to be done on a global level if positive results are to be realised.</p>	<p>40. Some commentators believe the best way to boost a flagging economy would be for governments to invest in major 'green'-related infrastructure projects</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p> <p>41. Some people believe that a flagging economy should be good for 'green' projects</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p> <p>42. Renewable energy generation projects will have a positive impact regardless of their scale</p> <p>(a) True</p> <p>(b) False</p> <p>(c) Cannot say</p> <p>(d)</p>
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**Model Test Paper 8**  
**General Study Paper II**

Existing targets for reducing carbon emissions worldwide acknowledge that the current high levels of greenhouse gasses in our atmosphere are an accumulation over many decades that can be directly attributed to today's developed economies. This situation has led to developing economies like India, China and Mexico having less aggressive targets for emissions reduction than the developed countries. There is concern though that unless these large emerging economies are fully committed to reducing carbon emissions, their desire for rapid economic growth coupled with less stringent emission targets will encourage them to continue to use traditional production methods rather than introduce cleaner and more sustainable technologies. If the reduction of carbon emissions worldwide has any hope of success, the emerging economies must be able to contribute on an equal basis to the decision making processes which will determine how this is to be achieved.

43. Developing economies have less stringent emissions reduction targets than developed economies do

- (a) True
- (b) False
- (c) Cannot say
- (d)

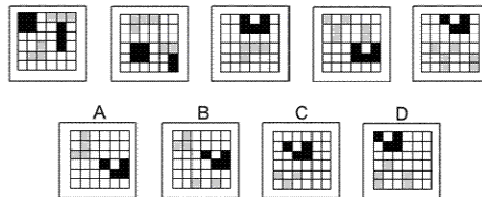
44. The developing countries will resist any move to stricter emissions targets

- (a) True
- (b) False
- (c) Cannot say
- (d)

45. Currently, developing economies produce less carbon dioxide per year than developed countries do

- (a) True
- (b) False
- (c) Cannot say
- (d)

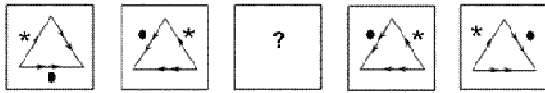
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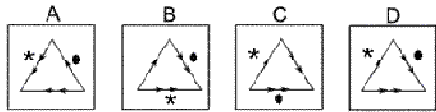
- (a) A
- (b) B
- (c) C
- (d) D

Model Test Paper 8  
General Study Paper II

47.

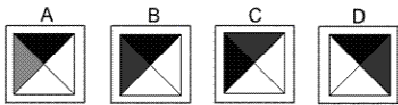
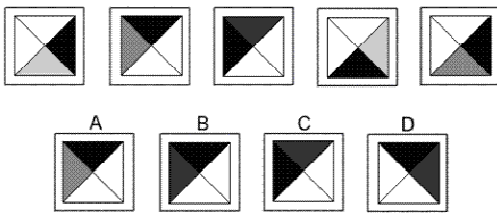


Which of the following replaces the question mark in the sequence?



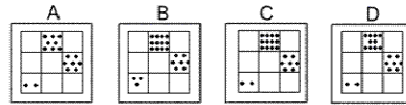
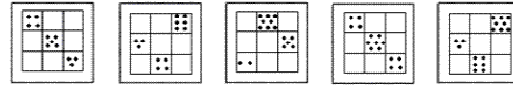
- (a) A
- (b) B
- (c) C
- (d) D

48.



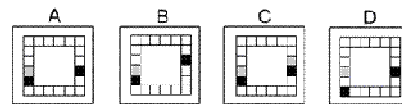
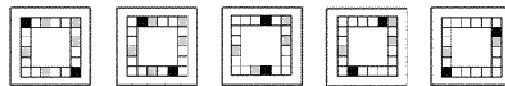
- (a) A
- (b) B
- (c) C
- (d) D

49.



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

50.



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

**Model Test Paper 8**  
**General Study Paper II**

The logic problems 51 - 56 present you with three true statements: Fact 1, Fact 2, and Fact 3. Then, you are given three more statements (labeled I, II, and III), and you must determine which of these, if any, is also a fact. One or two of the statements could be true; all of the statements could be true; or none of the statements could be true. Choose your answer based solely on the information given in the first three facts.

51. Fact 1: All hats have brims.  
Fact 2: There are black hats and blue hats.  
Fact 3: Baseball caps are hats.  
If the first three statements are facts, which of the following statements must also be a fact?  
I. All caps have brims.  
II. Some baseball caps are blue.  
III. Baseball caps have no brims.

- (a) I only
- (b) II only
- (c) I, II, and III
- (d) None of the statements is a known fact

52. Fact 1: All chickens are birds.  
Fact 2: Some chickens are hens.  
Fact 3: Female birds lay eggs.  
If the first three statements are facts, which of the following statements must also be a fact?  
I. All birds lay eggs.  
II. Hens are birds.  
III. Some chickens are not hens.

- (a) II only
- (b) II and III only
- (c) I, II, and III
- (d) None of the statements is a known fact

53. Fact 1: Most stuffed toys are stuffed with beans.  
Fact 2: There are stuffed bears and stuffed tigers.  
Fact 3: Some chairs are stuffed with beans.  
If the first three statements are facts, which of the following statements must also be a fact?  
I. Only children's chairs are stuffed with beans.  
II. All stuffed tigers are stuffed with beans.  
III. Stuffed monkeys are not stuffed with beans.

- (a) I only
- (b) II only
- (c) II and III only
- (d) None of the statements is a known fact

54. Fact 1: Pictures can tell a story.  
Fact 2: All storybooks have pictures.  
Fact 3: Some storybooks have words.  
If the first three statements are facts, which of the following statements must also be a fact?  
I. Pictures can tell a story better than words can.  
II. The stories in storybooks are very simple.  
III. Some storybooks have both words and pictures.

- (a) I only
- (b) II only
- (c) III only
- (d) None of the statements is a known fact

**Model Test Paper 8**  
**General Study Paper II**

<p>55. Fact 1: Robert has four vehicles. Fact 2: Two of the vehicles are red. Fact 3: One of the vehicles is a minivan. If the first three statements are facts, which of the following statements must also be a fact? I. Robert has a red minivan. II. Robert has three cars. III. Robert's favorite color is red.</p> <p>(a) I only (b) II only (c) II and III only (d) None of the statements is a known fact</p> <p>56. Fact 1: Jessica has four children. Fact 2: Two of the children have blue eyes and two of the children have brown eyes. Fact 3: Half of the children are girls. If the first three statements are facts, which of the following statements must also be a fact? I. At least one girl has blue eyes. II. Two of the children are boys. III. The boys have brown eyes.</p> <p>(a) II only (b) I and III only (c) II and III only (d) None of the statements is a known fact</p> <p>57. Solve the equation <math>5(-3x - 2) - (x - 3) = -4(4x + 5) + 13</math></p> <p>(a) <math>x = 1</math> (b) <math>x = 2</math></p>	<p>(c) <math>x = 3</math> (d) All values of <math>x</math></p> <p>58. Simplify the expression <math>2(a - 3) + 4b - 2(a - b - 3) + 5</math></p> <p>(a) <math>6a + 5</math> (b) <math>6b + 1</math> (c) <math>6b + 5</math> (d) <math>6a + 1</math></p> <p>59. If <math>x &lt; 2</math>, simplify <math> x - 2  - 4 -6 </math></p> <p>(a) <math>-x - 22</math> (b) <math>x - 22</math> (c) <math>-x + 22</math> (d) <math>x + 22</math></p> <p>60. Find the distance between the points <math>(-4, -5)</math> and <math>(-1, -1)</math>.</p> <p>(a) 2 (b) 3 (c) 4 (d) 5</p>
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<p>61. Find the equation of the line passing through the points (2, 3) and (4, 1).</p> <p>(a) <math>y = x + 5</math></p> <p>(b) <math>-y = -x + 5</math></p> <p>(c) <math>y = -x + 5</math></p> <p>(d) <math>y = -x</math></p> <p>62. If two people who are both carriers for a genetically inherited fatal recessive disease decide to become parents, what will be the odds that their children will also be carriers?</p> <p>(a) 1 out of 4</p> <p>(b) 2 out of 4</p> <p>(c) 3 out of 4</p> <p>(d) 4 out of 4</p> <p>63. If the sum of four consecutive odd integers is <math>s</math>, then, in terms of <math>s</math>, what is the greatest of these integers?</p> <p>(a) <math>(s - 12)/4</math></p> <p>(b) <math>(s - 6)/4</math></p> <p>(c) <math>(s + 6)/4</math></p> <p>(d) <math>(s + 12)/4</math></p> <p>64. If a school cafeteria needs <math>c</math> cans of soup each week for each student, and if there are <math>s</math> students in the school, for how many weeks will <math>x</math> cans of soup last?</p> <p>(a) <math>cx/s</math></p>	<p>(b) <math>xs/c</math></p> <p>(c) <math>s/cx</math></p> <p>(d) <math>x/cs</math></p> <p>65. If <math>p</math> painters can paint <math>h</math> houses in 4 days, how many houses can 6 painters, working at the same rate, paint in 2 days?</p> <p>(a) <math>h/3p</math></p> <p>(b) <math>3hp/4</math></p> <p>(c) <math>hp/12</math></p> <p>(d) <math>3h/p</math></p> <p>66. Solve the equation</p> $ -2x + 2  - 3 = -3$ <p>(a) <math>x = -1</math></p> <p>(b) <math>x = 2</math></p> <p>(c) <math>x = 1</math></p> <p>(d) <math>x = 3</math></p> <p>67. The circumference of a circle is equal to 72 pi. Find the radius of this circle.</p> <p>(a) <math>r = 6</math></p> <p>(b) <math>r = 16</math></p> <p>(c) <math>r = 36</math></p> <p>(d) <math>r = 46</math></p>
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**General Study Paper II**

<p>68. The length of a rectangular garden is 2 feet longer than 3 times its width. If the perimeter of the garden is 100 feet, find the width and the length of the garden.</p> <p>(a) <math>W = 12, L = 18</math></p> <p>(b) <math>W = 12, L = 38</math></p> <p>(c) <math>W = 22, L = 18</math></p> <p>(d) <math>W = 12, L = 36</math></p> <p>69. A rectangular field has a length 10 feet more than it is width. If the area of the field is 264, what are the dimensions of the rectangular field?</p> <p>(a) <math>x = 22</math> and <math>y = 12</math></p> <p>(b) <math>x = 12</math> and <math>y = 12</math></p> <p>(c) <math>x = 22</math> and <math>y = 22</math></p> <p>(d) <math>x = 22</math> and <math>y = 18</math></p> <p>70. A company has found that when <math>x</math> units of a product are manufactured and sold, its revenue is given by <math>x^2 + 100x</math> dollars and its costs are given by <math>240x + 500</math> dollars. How many units must be produced and sold to make a profit of 10,000 dollars?</p> <p>(a) 194</p> <p>(b) 196</p> <p>(c) 54</p> <p>(d) - 54</p> <p>71. Look at this series: J14, L16, __, P20, R22, . . . What number should fill the blank?</p>	<p>(a) S24</p> <p>(b) N18</p> <p>(c) M18</p> <p>(d) T24</p> <p>72. Look at this series: F2, __, D8, C16, B32, . . . What number should fill the blank?</p> <p>(a) A16</p> <p>(b) G4</p> <p>(c) E4</p> <p>(d) E3</p> <p>73. Look at this series: V, VIII, XI, XIV, __, XX, . . . What number should fill the blank?</p> <p>(a) IX</p> <p>(b) XXIII</p> <p>(c) XV</p> <p>(d) XVII</p> <p>74. Look at this series: XXIV, XX, __, XII, VIII, . . . What number should fill the blank?</p> <p>(a) XXII</p> <p>(b) XIII</p> <p>(c) XVI</p> <p>(d) IV</p>
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<p>75. Look at this series: VI, 10, V, 11, __, 12, III, . . . What number should fill the blank?</p> <p>(a) II</p> <p>(b) IV</p> <p>(c) IX</p> <p>(d) 14</p> <p>76. DELTOID : MUSCLE</p> <p>(a) radius : bone</p> <p>(b) brain : nerve</p> <p>(c) tissue : organ</p> <p>(d) blood : vein</p> <p>77. UMBRAGE : OFFENSE</p> <p>(a) confusion : penance</p> <p>(b) infinity : meaning</p> <p>(c) decorum : decoration</p> <p>(d) elation : jubilation</p> <p>78. PROFESSOR : ERUDITE</p> <p>(a) aviator : licensed</p> <p>(b) inventor : imaginative</p> <p>(c) procrastinator : conscientious</p> <p>(d) overseer : wealthy</p>	<p>79. DEPENDABLE : CAPRICIOUS</p> <p>(a) fallible : cantankerous</p> <p>(b) erasable : obtuse</p> <p>(c) malleable : limpid</p> <p>(d) capable : inept</p> <p>80. FROND : PALM</p> <p>(a) quill : porcupine</p> <p>(b) blade : evergreen</p> <p>(c) scale : wallaby</p> <p>(d) tusk : alligator</p>
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Model Test Paper 8  
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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"/>