

Model Test Paper 47  
General Study Paper II

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TEST BOOKLET  
GENERAL STUDIES  
Paper-II

C

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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When he died on November 27, 1953, Gladstone O'Neill was universally recognized as one of the major dramatists of the modern world. Four times a Pulitzer Prize-winner, he had also been awarded the 1936 Nobel Prize for Literature. His plays have been translated into most major languages and read by more people than those of any other playwright except W. Shakespeare and maybe G. Bernard Shaw. O'Neill was a puzzle to his friends - a genuinely shy, brooding, complicated man in whom cruelty alternated with touching kindness. He was both naive and worldly. One biographer found him "sentimental one instant, hard as nails the next." His widow, after 26 years with O'Neill, said, "To understand his work you must understand the man, for the work and the man are one."

1. According to the passage, O'Neill

- (a) knew nearly all the important dramatists of the modern world
- (b) passed away in the 20th century
- (c) only had been awarded the Nobel Prize for Literature
- (d) knew more than four languages

2. We can infer from the passage that

- (a) O'Neill's cruelty affected his friends very much
- (b) not only Shakespeare but Bernard Shaw appreciated his works
- (c) O'Neill sometimes had childlike behavior
- (d) his wife can't understand O'Neill, either

3. We can easily infer from the passage that

- (a) his wife divorced O'Neill after 26 years-long marriage
- (b) there's a close connection between O'Neill and his works
- (c) it's not necessary to understand him in order to understand his works
- (d) he was emotional, not so strict man

Early man knew about the natural fire of lightning and volcanoes long before he began to use fire himself. He didn't know what fire was, but he had seen the damage it could cause. Fire was powerful

and dangerous, and so he was frightened. Greek legend tells how Prometheus stole fire from God Zeus, and brought it to Earth for man to use. Zeus was very angry. He ordered Prometheus to be chained to a rock. Every day an eagle pecked out his liver, and every night his liver grew again. So Prometheus suffered a terrible punishment for his deed. The name "Prometheus" means "the fore-thinker". One Greek philosopher wrote that all arts, all skills, men owe to the fore-thinker. By this he meant that civilization is founded on fire and using fire. When man eventually learned how to use fire, he guarded it carefully. Some ancient peoples worshiped fire as a goddess. Even when man learned to make fire whenever he liked, often kept sacred fires burning.

4. It's obvious from the passage that Prometheus

- (a) doesn't mean a person who thinks beforehand
- (b) was able to protect himself from the eagle
- (c) intended to bring fire from the sky for human
- (d) ordered the gods to be chained to a rock

5. It is made clear in the passage that

- (a) fire enabled early man to live in peace
- (b) a bird of prey eats an organ of Prometheus
- (c) Prometheus is regarded as a hero by all Greek people
- (d) man never realized how to use the advantages of fire

6. A Greek philosopher thinks that

- (a) if Prometheus hadn't stolen fire from Zeus, there wouldn't have been a civilization
- (b) Prometheus can't exactly imagine what will happen in the future
- (c) man has not got the ability to use fire
- (d) Zeus can't have punished Prometheus

Albert Einstein was born in 1879 in the German city of Ulm. He had been no infant prodigy; indeed, he was so late in learning to speak that his parents feared he was fool. In school, though his teachers saw no special talent in him, the signs were already there. He taught himself calculus, for example, and he told me that his teachers seemed a little afraid of him because he asked questions

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they could not answer. At the age of 16, he asked himself whether a light wave would seem stationary if one ran side by side of it. It seems an innocent question, but this shows Einstein going to the heart of a problem. From it there would arise, ten years later, his theory of relativity.

7. Albert Einstein

- (a) is the most genius scientist of all
- (b) was born in the 18th century
- (c) was spoiled by his teachers in school
- (d) made his parents afraid due to his problem in speech in his childhood

8. When he was in school, Einstein

- (a) showed no signals about his genius
- (b) was afraid of his teachers due to their innocent questions
- (c) asked difficult questions to his teachers
- (d) was understood as genius by public when he was a teenager

9. It's obvious in the passage, Einstein's

- (a) genius was a gift
- (b) character was perfect to most of his teachers
- (c) life encouraged most of the scientist in the world
- (d) question is the origin of his theory of relativity

Mahalia Jackson was born into a preacher's family in 1911, and she grew up in a riverfront shanty in New Orleans. She was motherless at five, working as a maid and loudness in her mid-teens. As a little girl, she would whisper to herself before she went to sleep, "someday the sun is going to shine down on me in some faraway place." In pursuit of that dream, Mahalia migrated to Chicago when she was still a teenager. She never expected to support herself by singing, and by the time I joined her, the hands she used so expressively in her performances had scrubbed floors, laundered and helped her earn a living as a hotel maid, factory worker, beautician and florist. But her remarkable voice brought her more and more invitations to sing-at funerals, in churches, at concerts. And, through her warm friendly personality and a life

based on sound spiritual values and hard work, she eventually found her place in the sun.

10. We can infer from the passage Mahalia

- (a) had no mother during her whole life
- (b) lived in a fashionable house in New Orleans
- (c) was orphaned when she wasn't even a teenager
- (d) grew up in a religious family

11. It's stated in the passage that Mahalia

- (a) always dreams when she puts her head on the pillow
- (b) never wants the sun to set
- (c) worked only as a maid during her middle age
- (d) never hoped to have a job by using her voice

12. Mahalia Jackson

- (a) used to sing only at funerals
- (b) never fulfilled her dreams
- (c) always found a seat under the sunrays
- (d) also earned a living by selling flowers

A group of researchers has demonstrated that pleasure and positive states of mind are better for our health. This new intellectual approach to health is not only more powerful, but also has no side effects. Central to this claim are recent findings that even getting an education may add as much as 10 years to your health. That is why National Geographic featured John de Rosen in its book *The Incredible Machine*, which discussed old age. De Rosen, an artist, continued to paint until the week he died at age 91. The book notes: "Some scientists believe that retirement to a sedentary lifestyle initiates or aggravates medical problems, thus shortening life. According to a study of retired people, adults over 65 can learn a creative skill, like oil painting, as readily as younger students." So retiring from a job in a sense means retiring from life unless supplemented by some other, preferably new activity.

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<p>13. It's implied in the passage that De Rosen</p> <p>(a) passed away while he was painting his last picture</p> <p>(b) was the author of the book The Incredible Machine</p> <p>(c) questioned his spinster-hood before he died</p> <p>(d) proved National Geographic's claim about the effects of work on people's life-duration</p> <p>14. As Incredible Machine's note suggests some scientists believed that retirement to a sedentary lifestyle</p> <p>(a) deteriorates one's health considerably</p> <p>(b) makes his life longer than working man</p> <p>(c) forces one to find new hobbies</p> <p>(d) comforts the older to some extent</p> <p>15. It can be inferred from the passage that there is no</p> <p>(a) difference in learning a creative skill between adults over 65 and younger students</p> <p>(b) success in the researchers' experiments</p> <p>(c) activity after retiring from a job</p> <p>(d) pleasure in developing one 's abilities</p> <p>Atoms of carbon, hydrogen and oxygen are put together to make molecules of sugar -a carbohydrate food substance. The carbon comes from carbon dioxide gas in the air. Air enters through holes, called stomata, in the plant's leaves. The hydrogen and oxygen come from water. The water is taken up from the soil by the plant's roots. The light energy is trapped by a special chemical called chlorophyll. Chlorophyll is green and gives green plants their color. The gas oxygen is left over at the end of photosynthesis and goes into the air.</p> <p>16. It is clear in the passage that</p> <p>(a) all the gases come from the air through the stomata</p> <p>(b) plants' seeming green is owing to a substance called chlorophyll</p> <p>(c) the water is split up by a chemical reaction in the plant's leaves</p>	<p>(d) the carbon enters the plant by means of its roots</p> <p>17. Water</p> <p>(a) can be used in photosynthesis interchangeably</p> <p>(b) is the converted form of trapped light energy</p> <p>(c) is the product of both photosynthesis and gases</p> <p>(d) is crucial since it provides the plant with oxygen and hydrogen</p> <p>18. It could be concluded from the passage that</p> <p>(a) gases, water and light are absorbed and turned into sugar and oxygen</p> <p>(b) water is absorbed through the holes of leaves</p> <p>(c) chlorophyll is not used in the photosynthesis as a chemical</p> <p>(d) absorbed carbon is doubled in the reaction and emitted back</p> <p>About twice every century, one of the massive stars in our galaxy blows itself apart in a supernova explosion that sends massive quantities of radiation and matter into space and generates shock waves that sweep through the arms of the galaxy. The shock waves heat the interstellar gas, evaporate small clouds, and compress larger ones to the point at which they collapse under their own gravity to form new stars. The general picture that has been developed for the supernova explosion and its aftermath goes something like this.</p> <p>Throughout its evolution, a star is much like a leaky balloon. It keeps its equilibrium figure through a balance of internal pressure against the tendency to collapse under its own weight. The pressure is generated by nuclear reactions in the core of the star which must continually supply energy to balance the energy that leaks out in the form of radiation. Eventually the nuclear fuel is exhausted, and the pressure drops in the core. With nothing to hold it up, the matter in the center of the star collapses inward, creating higher and higher densities and temperatures, until the nuclei and electrons are fused into a super-dense lump of matter known as a neutron star.</p> <p>As the overlying layers rain down on the surface of the neutron star, the temperature rises, until with a blinding flash of radiation, the collapse is reversed. A thermonuclear shock wave runs through the now expanding stellar envelope, fusing lighter elements into heavier ones and</p>
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<p>producing a brilliant visual outburst that can be as intense as the light of 10 billion suns. The shell of matter thrown off by the explosion plows through the surrounding gas, producing an expanding bubble of hot gas, with gas temperatures in the millions of degrees. This gas will emit most of its energy at X-ray wavelengths, so it is not surprising that X-ray observatories have provided some of the most useful insights into the nature of the supernova phenomenon. More than twenty supernova remnants have now been detected in X-ray studies.</p> <p>Recent discoveries of meteorites with anomalous concentrations of certain isotopes indicate that a supernova might have precipitated the birth of our solar system more than four and a half billion years ago. Although the cloud that collapsed to form the Sun and the planets was composed primarily of hydrogen and helium, it also contained carbon, nitrogen, and oxygen, elements essential for life as we know it.</p> <p>Elements heavier than helium are manufactured deep in the interior of stars and would, for the most part, remain there if it were not for the cataclysmic supernova explosions that blow giant stars apart. Additionally, supernovas produce clouds of high-energy particles called cosmic rays. These high-energy particles continually bombard the Earth and are responsible for many of the genetic mutations that are the driving force of the evolution of species.</p> <p>19. Which of the following titles best describes the content of the passage?</p> <p>(a) The Origins and Effects of Supernovas (b) The Life and Death of Stars (c) The Origins and Evolution of Life on Earth (d) The Aftermath of a Supernova</p> <p>20. According to the passage, we can expect a supernova to occur in our galaxy</p> <p>(a) about twice each year (b) hundreds of times each century (c) about once every fifty years (d) about once every other century</p>	<p>21. According to the passage all of the following are true of supernovas EXCEPT that they</p> <p>(a) are extremely bright (b) are an explosion of some sort (c) emit large quantities of X-rays (d) are caused by the collision of large galaxies</p> <p>22. The author employs which of the following to develop the first paragraph?</p> <p>(a) Analogy (b) Deduction (c) Generalization (d) Example</p> <p>23. It can be inferred from the passage that the meteorites</p> <p>(a) contain dangerous concentrations of radioactive materials (b) give off large quantities of X-rays (c) include material not created in the normal development of our solar system (d) contain pieces of a supernova that occurred several billion years ago</p> <p>24. The author implies that</p> <p>(a) it is sometimes easier to detect supernovas by observation of the X-ray spectrum than by observation of visible wavelengths of light (b) life on Earth is endangered by its constant exposure to radiation forces that are released by a supernova (c) recently discovered meteorites indicate that the Earth and other planets of our solar system survived the explosion of a supernova several billion years ago (d) lighter elements are formed from heavier elements during a supernova as the heavier elements are torn apart</p>
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<p>25. According to the passage what is the first event in the sequence that leads to the occurrence of a supernova?</p> <p>(a) An ordinary star begins to emit tremendous quantities of X-rays</p> <p>(b) A neutron star is enveloped by a superheated cloud of gas</p> <p>(c) An imbalance between light and heavy elements causes an ordinary star to collapse</p> <p>(d) A cloud of interstellar gas rich in carbon, nitrogen, and oxygen, collapses to form a neutron star</p> <p>26. According to the passage a neutron star is</p> <p>(a) a gaseous cloud containing heavy elements</p> <p>(b) an intermediate stage between an ordinary star and a supernova</p> <p>(c) the residue that is left by a supernova</p> <p>(d) the core of an ordinary star that houses the thermonuclear reactions</p> <p>27. The author is primarily concerned with</p> <p>(a) speculating about the origins of our solar system</p> <p>(b) presenting evidence proving the existence of supernovas</p> <p>(c) discussing the nuclear reaction that occurs in the core of a star</p> <p>(d) describing the sequence of scientific events</p> <p>The pioneers of the teaching of science imagined that its introduction into education would remove the conventionality, artificiality, and backward-lookingness which were characteristic; of classical studies, but they were gravely disappointed. So, too, in their time had the humanists thought that the study of the classical authors in the original would banish at once the dull pedantry and superstition of medieval scholasticism. The professional schoolmaster was a match for both of them, and has almost managed to make the understanding of chemical reactions as dull and as dogmatic an affair as the reading of Virgil's Aeneid.</p> <p>The chief claim for the use of science in education is that it teaches a child something about the</p>	<p>actual universe in which he is living, in making him acquainted with the results of scientific discovery, and at the same time teaches him how to think logically and inductively by studying scientific method. A certain limited success has been reached in the first of these aims, but practically none at all in the second. Those privileged members of the community who have been through a secondary or public school education may be expected to know something about the elementary physics and chemistry of a hundred years ago, but they probably know hardly more than any bright boy can pick up from an interest in wireless or scientific hobbies out of school hours. As to the learning of scientific method, the whole thing is palpably a farce.</p> <p>Actually, for the convenience of teachers and the requirements of the examination system, it is necessary that the pupils not only do not learn scientific method but learn precisely the reverse, that is, to believe exactly what they are told and to reproduce it when asked, whether it seems nonsense to them or not. The way in which educated people respond to such quackeries as spiritualism or astrology, not to say more dangerous ones such as racial theories or currency myths, shows that fifty years of education in the method of science in Britain or Germany has produced no visible effect whatever.</p> <p>The only way of learning the method of science is the long and bitter way of personal experience, and, until the educational or social systems are altered to make this possible, the best we can expect is the production of a minority of people who are able to acquire some of the techniques of science and a still smaller minority who are able to use and develop them.</p> <p>28. The author implies that the 'professional schoolmaster' has</p> <p>(a) no interest in teaching science</p> <p>(b) thwarted attempts to enliven education</p> <p>(c) aided true learning</p> <p>(d) supported the humanists</p> <p>29. The author's attitude to secondary and public school education in the sciences is</p> <p>(a) ambivalent</p> <p>(b) neutral</p> <p>(c) supportive</p> <p>(d) contemptuous</p>
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<p>30. The word 'palpably' most nearly means</p> <p>(a) empirically (b) obviously (c) tentatively (d) markedly</p> <p>31. The author blames all of the following for the failure to impart scientific method through the education system except</p> <p>(a) poor teaching (b) examination methods (c) lack of direct experience (d) lack of interest on the part of students</p> <p>32. If the author were to study current education in science to see how things have changed since he wrote the piece, he would probably be most interested in the answer to which of the following questions?</p> <p>(a) Do students know more about the world about them? (b) Do students spend more time in laboratories? (c) Can students apply their knowledge logically? (d) Have textbooks improved?</p> <p>33. Astrology is mentioned as an example of</p> <p>(a) a science that needs to be better understood (b) a belief which no educated people hold (c) something unsupportable to those who have absorbed the methods of science (d) the gravest danger to society</p> <p>34. All of the following can be inferred from the text except</p> <p>(a) at the time of writing, not all children received a secondary school education (b) the author finds chemical reactions interesting (c) science teaching has imparted some knowledge of facts to some children</p>	<p>(d) it is relatively easy to learn scientific method</p> <p>35. A can lay railway track between two given stations in 16 days and B can do the same job in 12 days. With the help of C, they did the job in 4 days only. Then, C alone can do the job in</p> <p>(a) <math>9\frac{1}{5}</math> days (b) <math>9\frac{2}{5}</math> days (c) <math>9\frac{3}{5}</math> days (d) 10 days</p> <p>36. A boy was asked to multiply a number by 25. He instead multiplied the next number by 52 and got the answers 324 more than the correct answer. The number to be multiplied was</p> <p>(a) 10 (b) 12 (c) 15 (d) 25</p> <p>37. Spheres A and B have their radii 40 cm and 10 cm respectively. The ratio of the surface area of A to the surface area of B is</p> <p>(a) 1 : 4 (b) 1 : 16 (c) 4 : 1 (d) 16 : 1</p> <p>38. FLP, INS, LPV, ?</p> <p>(a) ORY (b) UXZ (c) VXY (d) SVW</p>
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<p>39. A is the mother of B and C. If D is the husband of C. What is A to D.</p> <p>(a) Mother (b) Sister (c) Aunt (d) Mother-in-law</p> <p>40. Five bears – Jinan, Knot, Lee, Mushu and Nee-Hau – are kept in three adjacent rooms numbered 1-3 from left to right. There is at least one bear in each room. Knot is in a room to the left of Lee's. Mushu and Nee-Hau are not kept in the same room. Either Mushu or Jinan, but not both, are kept in room 2. Nee-Hau is kept in room 3. Which one of the following CANNOT be true?</p> <p>(a) One bear is kept in room 2 (b) Two bears are kept in room 1 (c) Two bears are kept in room 2 (d) Three bears are kept in room 2</p> <p>41. Each country was visited by at least one of the travellers. Each traveller visited either two or three different countries. Only one traveller visited Qatar. Every traveller who visited Mauritania went to Nepal as well. A traveller who visited Qatar did not visit Peru. John visited all of the countries Kate did. Which one of the following could be a list of the countries Lenny visited? explanation</p> <p>(a) Mauritania, Nepal, Oman (b) Oman, Qatar, Peru (c) Nepal, Oman, Qatar (d) Qatar, Mauritania, Oman</p> <p>42. This tree root indicates the absorption of saltwater and yet none of the other tree roots in the proximity contain traces of saltwater. Since the other trees are located in a forest on land with an altitude 10 percent higher than the surrounding area, the area surrounding the forest was probably covered by a south-flowing saltwater sea.</p>	<p>Which one of the following, if true, would most weaken the above argument?</p> <p>(a) There are no tree roots with signs of saltwater absorption between here and the nearest ocean (b) The closest geological source of saltwater is a sea 100 miles south of the forest (c) There are no geological sources of saltwater north of this forest (d) Most trees that use saltwater take only half their water from the ground and half from precipitation</p> <p>43. Scientists believe that many ordinary painkillers actually cause, not relieve, headaches because of medication overuse. They estimate that half of all chronic migraines, and up to 25 percent of all headaches, are actually "rebound" episodes triggered by the overuse of common pain medications. Studies of the relation between painkillers and headaches have always involved administering to test animals doses of painkillers massive enough to affect animals' nerve cells in the brain, and then measuring their levels of pain. Results of studies on the most common causes of headaches until now have led to an overestimation of the degree to which medication overdose contributed to headaches. Which one of the following, if true, most strengthens the above argument?</p> <p>(a) In the doses used until now in studies on "rebound" headaches triggered by painkiller overuse, animals' neurons (or nerve cells) are often not affected (b) Dilation of neurons causes chronic migraines more frequently than ordinary headaches (c) Occasionally test animals were administered doses of painkillers larger than the largest possible human exposure levels (d) People take more painkillers to relieve migraines than to relieve ordinary headaches</p> <p>44. Julius Rosenberg, a member of the Communist Party in the U.S., must have been a spy for the Soviet Union during the 1950's. In 1940 he joined the Army Signal Corps Engineering Laboratories at Fort Monmouth, New Jersey, where research on electronics, communications, radar and guided missile controls, all with important ramifications for the atom bomb, was undertaken.</p>
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<p>Which of the following, if true, would most weaken the above argument?</p> <p>(a) Rosenberg worked at the laboratories for two years only, a period that might be inadequate for gaining the entire secrets of the atom bomb</p> <p>(b) Rosenberg had publically denounced the development of the atom bomb by any country</p> <p>(c) Investigations into that time period show that up to a dozen U.S. communist sympathizers were employed in sensitive nuclear research labs around the country</p> <p>(d) The Soviet court documents cannot be considered reliable if they were produced during the reign of the communists</p> <p>45. Climatologists have hypothesized that the giant California redwoods are suffering from stress due to a dissipation of summer fogs. In one extensive study, researchers looked at data on the height of cloud cover, since the lower the cloud cover height, the greater the frequency of fogs. The data had been recorded hourly at several airports from 1951 to 2008 and extrapolated back to 1901. The study supported the climatologists' hypothesis, since the analysis showed that since the early 20th century, fog frequency in summers has declined by about one-third.</p> <p>Which one of the following, if true, would most weaken the above argument?</p> <p>(a) The pattern of monthly rainfall along the northern California coast has shifted significantly over the last 100 years</p> <p>(b) Botanists believe that the redwood's ability to conserve water is the result of a mechanism found in the trees' roots and not the result of the high humidity in fog</p> <p>(c) At the beginning of the 20th century the daytime temperature coast-inland difference was 17 degrees Fahrenheit; today it is just 11 degrees Fahrenheit.</p> <p>(d) Using tree ring data from redwoods to infer climate change is problematic because it is hard to determine whether the width of the tree ring reflects winter rain, summer fog, or other factors</p> <p>46. The proportion of Afro-American students enrolled in Gilmore Community College has increased over the past decades. This is partly shown by the fact that in 1965, only 6 percent of Afro-American between twenty and twenty-three in the town of Gilmore were enrolled in college,</p>	<p>while in 1997, 13 percent of the Afro-Americans between twenty and twenty-three were enrolled in Gilmore Community College. To evaluate the argument above, it would be most useful to compare 1965 and 1997 with regard to which of the following characteristics?</p> <p>(a) The percentage of Afro-American students between twenty and twenty-three who were not enrolled in Gilmore Community College</p> <p>(b) The percentage of Afro-American students between twenty and twenty-three who graduated from Gilmore Community College</p> <p>(c) The percentage of Afro-American students who, after attending Gilmore Community College, entered highly paid professions</p> <p>(d) The non-Afro-American students between twenty and twenty-three who were enrolled in Gilmore Community College</p> <p>47. Among four persons Prince, Queen, Raj and Sashi. Prince takes thrice as much time as Queen to complete a piece of work. Queen takes thrice as much time as Raj and Raj takes thrice as much time as Sashi to complete the same work. One group of three of the four men can complete the work in 13 days while another group of three can do so in 31 days. Which is the group that takes 13 days?</p> <p>(a) Prince, Queen, Raj</p> <p>(b) Prince, Queen, Sashi</p> <p>(c) Queen, Raj, Sashi</p> <p>(d) Prince, Raj, Sashi</p> <p>48. Pipe A fills a tank of 700 litres capacity at the rate of 40 litres a minute. Another pipe B fills the same tank at the rate of 30 litres a minute. A pipe at the bottom of the tank drains the tank at the rate of 20 litres a minute. If pipe A is kept open for a minute and then closed and pipe B is kept open for a minute and then closed and then pipe C is kept open for a minute and then closed and the cycle repeated, how long will it take for the empty tank to overflow?</p> <p>(a) 42 minutes 20 seconds</p> <p>(b) 14 minutes 20 seconds</p> <p>(c) 39 minutes 20 seconds</p> <p>(d) 40 minutes 20 seconds</p>
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<p>49. A man takes 20 days to reach the point B under normal circumstances. But, due to the increasingly hostile weather conditions the distance they travel every day reduces by 20%. In how many days would the man reach the point B, taking into consideration weather conditions?</p> <p>(a) 25 (b) 50 (c) 100 (d) None of these</p> <p>50. A tank is fitted with 8 pipes, some of them that fill the tank and others that are waste pipe meant to empty the tank. Each of the pipes that fill the tank can fill it in 8 hours, while each of those that empty the tank can empty it in 6 hours. If all the pipes are kept open when the tank is full, it will take exactly 6 hours for the tank to empty. How many of these are fill pipes?</p> <p>(a) 2 (b) 4 (c) 6 (d) 5</p> <p>51. A and B can do a piece of work in 45 days and 40 days respectively. They began to do the work together but A leaves after some days and then B completed the remaining work in 23 days. The number of days after which A left the work was</p> <p>(a) 12 (b) 11 (c) 10 (d) 9</p> <p>52. A bus without stopping travels at an average speed of 60 km/hr and with stoppages at an average speed of 40 km/hr. What is the total time taken by the bus for stoppages on a route of length 300km?</p> <p>(a) 4 hr (b) 3 hr (c) 2.5 hr (d) 3.5 hr</p>	<p>53. The speed of a bus during the second hour of its journey is twice that in the first hour. Also, its speed during the third hour is two-third the sum of its speeds in the first two hours. Had the bus travelled for three hours at the speed of the first hour, it would have travelled 120 km less. Find the average speed of the bus for the first three hours.</p> <p>(a) 60 kmph (b) 70 kmph (c) 80 kmph (d) 100 kmph</p> <p>54. Arun, Barun and Kiranmala start from the same place and travel in the same direction at speeds of 30, 40 and 60 km per hour respectively. Barun starts two hours after Arun. If Barun and Kiranmala overtake Arun at the same instant, how many hours after Arun did Kiranmala start?</p> <p>(a) 3 (b) 3.5 (c) 4 (d) 4.5</p> <p>55. Karan and Arjun run a 100-meter race, where Karan beats Arjun 10 metres. To do a favour to Arjun, Karan starts 10 metres behind the starting line in a second 100 metre race. They both run at their earlier speeds. Which of the following is true in connection with the second race?</p> <p>(a) Karan and Arjun reach the finishing line simultaneously (b) Arjun beats Karan by 1 metre (c) Arjun beats Karan by 11 metres (d) Karan beats Arjun by 1 metre</p> <p>56. A 300 metre long train crosses a platform in 39 seconds while it crosses a signal pole in 18 seconds. What is the length of the platform?</p> <p>(a) 320 m (b) 350 m (c) 650 m (d) Data inadequate</p>
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57. A tennis marker is trying to put together a team of four players for a tennis tournament out of seven available. males - a, b and c; females – m, n, o and p. All players are of equal ability and there must be at least two males in the team. For a team of four, all players must be able to play with each other under the following restrictions:  
b should not play with m,  
c should not play with p, and  
a should not play with o.  
Which of the following statements must be false?

- (a) b and p cannot be selected together
- (b) c and o cannot be selected together
- (c) c and n cannot be selected together
- (d) All are correct

58. If a light flashes every 6 seconds, how many times will it flash in  $\frac{3}{4}$  of an hour?

- (a) 449 times
- (b) 450 times
- (c) 451 times
- (d) 360 times

59. The length of the side of a square is represented by  $x+2$ . The length of the side of an equilateral triangle is  $2x$ . If the square and the equilateral triangle have equal perimeter, then the value of  $x$  is

- (a) 2
- (b) 3
- (c) 4
- (d) 6

60. There are 3 persons Sudhir, Arvind, and Gauri. Sudhir lent cars to Arvind and Gauri as many as they had already. After some time Arvind gave as many cars to Sudhir and Gauri as many as they have. After sometime Gauri did the same thing. At the end of this transaction each one of them had 24. Find the cars each originally had.

- (a) Sudhir had 39 cars, Arvind had 12 cars and Gauri had 21 cars
- (b) Sudhir had 12 cars, Arvind had 21 cars and Gauri had 39 cars

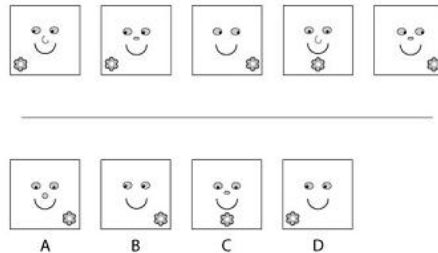
(c) Sudhir had 21 cars, Arvind had 39 cars and Gauri had 12 cars

(d) Sudhir had 39 cars, Arvind had 21 cars and Gauri had 12 cars

61. A train 110 metres long is running with a speed of 60 kmph. In what time will it pass a man who is running at 6 kmph in the direction opposite to that in which the train is going?

- (a) 5 sec
- (b) 6 sec
- (c) 7 sec
- (d) 10 sec

62.

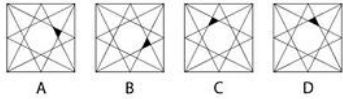
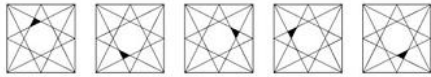


What comes next in the sequence?

- (a)
- (b)
- (c)
- (d)

**Model Test Paper 47**  
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63.



What comes next in the sequence?

- (a)
- (b)
- (c)
- (d)

64. Alpacas need to eat 1.5% of their body weight in food per day, and the average weight of an alpaca is 150 lbs. If alpacas eat hay, and a 20lb. bale of hay can purchased for £2.99, how much would it cost to feed an average alpaca for a year (52 weeks)?

- (a) 114.75
- (b) 122.59
- (c) 138.24
- (d) 142.54

65. After undergoing a quality standards training program, John was able to produce 35 widgets per hour, compared to 29 widgets per hour prior to the training program. If John works 40 hours per week, how many more widgets per week does John produce since the training program?

- (a) 240 widgets
- (b) 250 widgets
- (c) 260 widgets
- (d) 270 widgets

66. Ralph sells his product for £9.99 to customers. He purchases his product at the wholesale price of £39.50 for a pack of ten. How much profit would Ralph make through the retail sale of 125 units of his product?

- (a) 720.75
- (b) 725.25
- (c) 730.75
- (d) 735.25

67. A country sees 21,634 males and 22,028 females born in one year. If the country has a population of 32.4 million people, what percentage of the population are female?

- (a) 50.2%
- (b) 50.3%
- (c) 50.4%
- (d) Cannot say

68. In a kilometer race, If Abhishek gives Bharti a 40m start, Abhishek wins by 19sec. But if Abhishek gives Bharti a 30 sec start, Bharti wins by 40 m. Find the time taken by Bharti to run 5,000m?

- (a) 150 sec
- (b) 450 sec
- (c) 750 sec
- (d) 825 sec

69.

Find the missing number:

10	7	?	7	12
100	63	40	49	72

- (a) 10
- (b) 4
- (c) 6
- (d) 5

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70.

Find the missing number:

1.75	3.25	2.5	0.75	9.75
3.5	5	4.25	2.5	?

- (a) 11.5
- (b) 13.5
- (c) 12.25
- (d) 7.5

71. Find the missing number:  
9, 10, ?, 15, 19

- (a) 15
- (b) 12
- (c) 10
- (d) 13

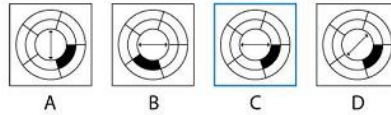
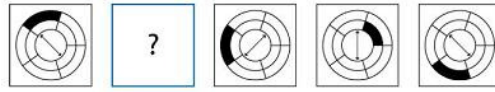
72. A man jogging inside a railway tunnel at a constant speed hears a train approaching the tunnel from behind at a speed of 30km/h, when he is one third of the way inside the tunnel. Whether he keeps running forward or turns back, he will reach the end of the tunnel at the same time the train reaches that end. The speed at which the man is running is

- (a) 6 km/hr
- (b) 8 km/hr
- (c) 12 km/hr
- (d) 10 km/hr

73. A boat goes 30 km. upstream and 44 km. downstream in 10 hours. In 13 hours, it can go 40 km upstream and 55 km down-stream. The speed of the boat in still water is

- (a) 3 km/hr
- (b) 4 km/hr
- (c) 8 km/hr
- (d) 6 km/hr

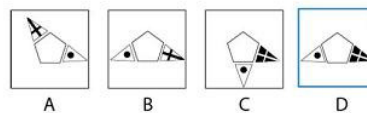
74.



What comes next in the sequence?

- (a)
- (b)
- (c)
- (d)

75.



What comes next in the sequence?

- (a)
- (b)
- (c)
- (d)

**Model Test Paper 47**  
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76.

The AAA rating currently enjoyed by British banks' may be about to change, as the governor of the Banque de France, Christian Noyer, lashed out at the amount of British debt. This statement was made in response to warnings received by the French government that a number of banks across Europe, including France, are being considered for downgrading.

Noyer's outburst continued, as he stated that a downgrade for France was 'unjust', and that the downgrades should start with the UK, which currently has a larger amount of debt, more inflation and weaker growth than France. However, the French economy is expected to shrink both this quarter and the next, suggesting the nation is suffering from recession. In light of this, a warning for Mr Noyer not to throw stones in glass houses appears apt.

Which of the following statements is definitely correct?

- (a) British banks will be downgraded from their AAA status
- (b) Christian Noyer called it unjust for French banks to lose their AAA status
- (c) British bankers are all members of the AA insurance group
- (d) The governor of the Banque de France lives in a glass house

77.

Official statistics suggest that only a third of drivers' tax is spent on the roads. In 2010, figures suggest revealed that drivers spent twenty eight billion pounds in fuel taxes, yet, in the same year, only five billion was spent on local roads and a further four billion on national highways. In addition to fuel taxes, excise tax has almost doubled since 1988. Speaking on this subject, the president of the AA stated that the poorest motorists are often the most affected by tax hikes.

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How much tax, in total, was spent on local roads and national highways in 2010?

- (a) Four billion pounds

(b) Five billion pounds

(c) Nine billion pounds

(d) Twenty three billion pounds

78.

The prime minister recently announced a new plan to kick-start social recovery and 'troubleshoot' dysfunctional families. Under this scheme, the government plans to invest £450 million into families; providing more case workers, probation officers and social workers. While forty percent of the total bill is expected to be provided by central government, the remaining sixty percent is to be provided by local councils.

Those in opposition appear sceptical as to the worth of the scheme, highlighting that the funding must be gained by cuts to other key areas. In this way, the prime minister has been accused of 'taking with one hand while giving with the other'.

What does the author mean when he refers to the proposed scheme as 'taking with one hand while giving with the other'?

- (a) The author means the scheme will be detrimental to families
- (b) The author means funding for the scheme may come from other areas
- (c) The author means that only local government will be giving funds
- (d) The author means that funds will come from companies

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79.

A British surgeon has invented a new device that kills pain without the use of drugs. The gadget, which aims to reduce knee pain and the need for operations, is said to block the pain signal as the spinal cord is unable to carry both the pain and the vibration at the same time. This technique, using vibration to block pain signals, is not new; first appearing in the American civil war before being re-examined in the 1960's and eventually appearing on the market in 2009. This technology, which is powered by AAA batteries, is the first time the product has been widely available for knee pains.

When was the technology to specifically kill knee pain by the use of vibrations first invented?

- (a) In the American civil war
- (b) In the 1960's
- (c) In 2009
- (d) Cannot say

80.

Experts warn that the growing number of dementia cases may become the social problem of this century. The World Alzheimer Report predicts that the burden placed on social resources by cases of dementia will continue to grow as the number of cases escalates. A reason behind the growing number of people suffering from dementia is due to an increase in life expectancy, with more people living into their eighties and nineties than ever before.

In addition to the increasing number of cases, a difference in how differing European countries care for patients with Alzheimer's has also been found. The World Alzheimer report noted that in counties with higher income, patients are more likely to be looked after by professional healthcare workers, than by family members themselves.

Which one of the following statements cannot be deduced?

- (a) Increased dementia cases will be a burden on social resources
- (b) Life expectancy can be seen to be increasing
- (c) European countries employ more nurses than other countries
- (d) Wealthy European countries are more likely to employ healthcare workers



Model Test Paper 47  
General Study Paper II

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"/>
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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"/>