



All India Civil Services Coaching Centre

(Under the aegis of Government of Tamil Nadu)

TEST BOOKLET

Test 13 – CSAT Paper II

Time Allowed: 2 Hours

Maximum Marks: 200

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS 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. You have to enter your Name on the Test Booklet
3. This Test Book contains 80 items (questions). Each it 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.
4. You have to mark all your response ONLY on the separate sheet provided along with the Test Booklet.
5. All items Carry equal marks. There will be **penalty (negative marking)** for wrong answers marked by you in the Answer sheet.
6. There are four alternatives for the answers to every question. For each question for which a wrong answer has been given by the candidate, one third ($\frac{1}{3}$) of the marks assigned to that question will be deducted as penalty.
7. 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 same penalty as above for that question.
8. 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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Direction for questions 1 to 5: Read the following passages and answer the questions that follow each passage. Your answers to these items should be based on the passages only.

PASSAGE 1

One of the greatest challenges facing medical students today, apart from absorbing volumes of technical information and learning habits of scientific thought, is that of remaining empathetic to the needs of patients in the face of all this rigorous training. Requiring students to immerse themselves completely in medical coursework risks disconnecting them from the personal and ethical aspects of doctoring and such strictly scientific thinking is insufficient for grappling with modern ethical dilemmas. For these reasons, aspiring physicians need to develop new ways of thinking about and interacting with patients. Training in ethics that takes narrative literature as its primary subject is one method of accomplishing this.

Although training in ethics is currently provided by medical schools, this training relies heavily on an abstract, philosophical view of ethics. Although the conceptual clarity provided by a traditional ethics course can be valuable, theorizing about ethics contributes little to the understanding of everyday human experience or to preparing medical students for the multifarious ethical dilemmas they will face as physicians. A true foundation in ethics must be predicated on an understanding of human behavior that reflects a wide array of relationships and readily adapts to various perspectives, for this is what is required to develop empathy. Ethics courses drawing on narrative literature can better help students prepare for ethical dilemmas precisely because such literature attaches its readers so forcefully to the concrete and varied would of human events.

The act of reading narrative literature is uniquely suited to the development of what might be called flexible ethical thinking. To grasp the development of character, to tangle with heightening moral crises, and to engage oneself with the story not as one's own but nevertheless as something recognizable and worthy of attention, readers must use their moral imagination. Giving oneself over to the ethical conflicts in a story requires the abandonment of strictly absolute, inviolate sets of moral principles. Reading literature also demands that the reader adopt another person's point of view—that of the narrator or a character in a story—and thus requires the ability to depart from one's personal ethical stance and examine moral issues from new perspectives. It does not follow that readers, including medical professionals, must relinquish all moral principles, as is the case with situational ethics, in which decisions about ethical choices are made on the basis of intuition and are entirely relative to the circumstances in which they arise. Such an extremely relativistic stance would have as little benefit for the patient or physician as would a dogmatically absolutist one. Fortunately, the incorporation of narrative literature into the study of ethics, while serving as a corrective to the later stance, need not lead to the former. But it can give us something that is lacking in the traditional philosophical study of ethics—namely, a deeper understanding of human nature that can serve as a foundation for ethical reasoning and allow greater flexibility in the application of moral principles.

1. Which one of the following most accurately states the main point of the passage?
 - (a) Training in ethics that incorporates narrative literature would better cultivate flexible ethical thinking and increase medical students' capacity for empathetic patient care as compared with the

- traditional approach of medical schools to such training.
- (b) Traditional abstract ethical training, because it is too heavily focused on theoretical reasoning, tends to decrease or impair that medical student's sensitivity to modern ethical dilemmas.
- (c) Only a properly designed curriculum that balances situational, abstract, and narrative approaches to ethics will adequately prepare the medical student for complex ethical confrontations involving actual patients.
- (d) Narrative-based instruction in ethics is becoming increasingly popular in medical schools because it requires students to develop a capacity for empathy by examining complex moral issues from a variety of perspectives.
2. Which one of the following most accurately represents the author's use of the term "moral imagination"?
- (a) a sense of curiosity, aroused by reading, that leads one to follow actively the development of problems involving the characters depicted in narratives.
- (b) A faculty of seeking out and recognizing the ethical controversies involved in human relationships and identifying oneself with one side or another in such controversies
- (c) A capacity to understand the complexities of various ethical dilemmas and to fashion creative and innovative solutions to them
- (d) An ability to understand personal aspects of ethically significant situations even if one is not a direct participant and to empathize with those involved in them.
3. It can be inferred from the passage that the author would most likely agree with which one of the following statements?
- (a) The heavy load of technical coursework in today's medical schools often keeps them from giving adequate emphasis to courses in medical ethics.
- (b) Students learn more about ethics through the use of fiction than through the use of non-fictional readings.
- (c) Neither scientific training nor traditional philosophical ethics adequately prepares doctors to deal with the emotional dimension of patients' needs.
- (d) The failing of an abstract, philosophical training in ethics can be remedied only by replacing it with a purely narrative-based approach.
4. The author's attitude regarding the traditional method of teaching ethics in medical school can most accurately be described as
- (a) partial disapproval of the method and approval of some of its effects
- (b) reserved judgment regarding the method and disapproval of all of its effects
- (c) partial disapproval of the method and clinical indifference toward its effects
- (d) partial approval of the method and disapproval of all of its effects

PASSAGE 2

Politicians and generals talk of military strategies and manoeuvres but something completely different is needed. Stability will come only when economic opportunities exist, when youth can find jobs and support families rather than seeking their livelihood in violence. Peace can only be achieved with a withdrawal of foreign troops, sanctions and peacekeepers and the arrival of jobs, productive farms and factories, healthcare and schools.

5. According to the author, how can political stability be achieved?
- (a) Increasing the number of foreign troops in areas of conflict
- (b) Depending more on foreign aid
- (c) Following recommendations given by the World Bank
- (d) Providing economic opportunities
6. A certain amount of sum is invested at simple interest. If the sum becomes k times itself in 16 years and $2k$ times itself in 40 years, in how many years will it become $4k$ times of

itself?

- (a) 96 years
- (b) 88 years
- (c) 80 years
- (d) 64 years

7. A man sold an article for Rs. 720 and incurred a loss. Had he sold the article for Rs.960, his gain would have been equal to double of the amount of loss that he incurred. At what price should he sell the article to have 20% profit?

- (a) 960
- (b) 1020
- (c) 1260
- (d) 880

8. 8 litres are drawn from a cask full of lemon juice and is then filled with water. This operation is performed three more times. The ratio of the quantity of lemon juice now left in cask to that of water is 16 : 65. How much lemon juice did the cask hold originally?

- (a) 18 litres
- (b) 24 litres
- (c) 32 litres
- (d) 42 litres

Direction for questions 9 to 17: Read the following passages and answer the questions that follow each passage. Your answers to these items should be based on the passages only.

PASSAGE 3

Genetic variation is the cornerstone of evolution, without which there can be no natural selection, and so a low genetic diversity decreases the ability of a species to survive and reproduce, explains lead author Yohan Moodley, Professor at the Department of Zoology, University of Venda in South Africa.

Two centuries ago, the black rhinoceros – which roamed much of sub-Saharan Africa – had 64 different genetic lineages; but today only 20 of these lineages remain, says the paper. The species is now restricted to five countries, South Africa, Namibia, Kenya, Zimbabwe and Tanzania. Genetically unique populations that once existed

in Nigeria, Cameroon, Chad, Eritrea, Ethiopia, Somalia, Mozambique, Malawi and Angola have disappeared. The origins of the 'genetic erosion' coincided with colonial rule in Africa and the popularity of big game hunting. From the second half of the 20th century, however, poaching for horns has dramatically depleted their population and genetic diversity, especially in Kenya and Tanzania.

9. What is important for evolution?

- (a) Genetic variation
- (b) Large population
- (c) Mixing of species
- (d) Survival of the fittest

10. Genetic diversity is proportional to _____.

- (a) Species population
- (b) The ability of a species to survive and reproduce
- (c) Inbreeding
- (d) Extinction

PASSAGE 4

The belief in God has to be based on faith which transcends reason. Indeed, even the so-called realisation has at bottom an element of faith without which it cannot be sustained. In the very nature of things, it must be so. Who can transgress the limitation of his being? I hold that complete realisation is impossible in this embodied life. Nor is it necessary. A living immovable faith is all that is required for reaching the full spiritual height attainable by human beings. God is not outside the earthly case of ours. Therefore, exterior proof is not of much avail if any at all. We must ever fail to perceive Him through the senses because He is beyond them. We can feel Him if we will but withdraw ourselves from the senses. The divine music is incessantly going on within ourselves, but the loud senses drown the delicate music, which is unlike and infinitely superior to anything we can perceive or hear with our senses. But he is not God who merely satisfies the intellect if he ever does. God to be God must rule the heart and transform it. He must express Himself in every smallest act of His votary. This can only be done

through a definite realization more real than the five senses can ever produce. Sense perceptions can be, often are, false and deceptive, however real they may appear to us. Where there is realization outside the senses, it is infallible. It is proved not by extraneous evidence but in the transformed conduct and character of those who have felt the real presence of God within. Such testimony is to be found in the experiences of an unbroken line of prophets and sages in all countries and climes. To reject this evidence is to deny oneself.

11. Which of the two conclusions can be drawn from what is stated in the passage?

1. The realisation of God is not possible without faith.
 2. Complete realization of God is not possible in this bodily existence.
- (a) Only conclusion 1 can be drawn.
(b) Only conclusion 2 can be drawn.
(c) Both conclusions 1 and 2 can be drawn.
(d) Neither conclusion 1 nor 2 can be drawn.

12. "The loud senses drown the delicate music". What does the author mean by this statement?

- (a) Human senses are not sharp enough to capture the subtle sounds of nature.
(b) Our senses are too blunt to understand divine music.
(c) We are so much involved in our sensory perception that we fail to notice the continuous presence of God within us.
(d) All of the above.

13. Which of the following qualities of God does the author refer to in the passage?

1. God is omnipresent and omnipotent.
 2. God must be capable of transforming the being of man.
 3. God must express Himself even in the smallest act of his believer.
 4. God should be capable of being perceived through faith and reason.
- (a) 1 and 2 follows
(b) 2 and 3 follows
(c) 3 and 4 follows
(d) 1 and 4 follows

14. Which one of the following is not correct as per the passage?

- (a) That realisation of God which is extrasensory, cannot fail.
(b) The realisation of God is to be established by the transformed conduct and character of those who have realized God.
(c) The realisation of God is more real than the sensory perceptions.
(d) None of the above.

PASSAGE 5

Typically the queen honeybee is mother to all the bees in a hive; after mating with several male drones from other colonies, she lays fertilized eggs that develop into all-female worker bees and lays unfertilized eggs that become all-male drones. When a queen dies, workers often lay unfertilized eggs that hatch into drones. Yet workers rarely reproduce while a queen reigns.

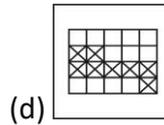
According to natural selection theory, a worker would enhance her fitness—or ability to propagate her genes—by hatching her own eggs in addition to or in place of the queen's. But a typical worker's fitness would be diminished if other workers' sons, who have less genetic material in common with the worker, supplanted the queen's sons (the worker's brothers). Researchers, testing the hypothesis that workers usually somehow block each other's attempts to reproduce, put unfertilized eggs laid by workers and by the queen into a hive. Other workers quickly devoured the workers' eggs while leaving the queen's eggs alone.

15. The inner workings in a honeybee hive that regulate reproduction, as they are described in the passage, are most similar to which of the following types of human societies?

- (a) A totalitarian society in which citizens' "policing" of each other's actions helps to maintain the status quo.
(b) A pacifist state in which the individuals are strongly opposed to the use of violence or aggression to settle disputes.
(c) A democratic society in which the voice of

the majority rules.

- (d) A parliamentary society in which a few members, organized as a cabinet wield executive power.



(d)

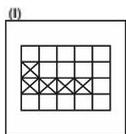
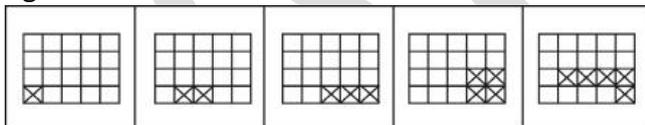
16. The passage best supports which of the following inferences about the fitness of honeybees?

- (a) Reproduction diminishes any individual honeybee's fitness.
- (b) An individual worker's fitness can be maintained without the individual herself reproducing.
- (c) A hierarchy of stronger and weaker individuals among the worker bees determines which individuals will reproduce when a queen dies.
- (d) While a queen reigns, the fitness of the worker bees is increased and that of the drones is diminished.

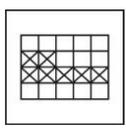
17. The passage suggests which of the following about the eggs laid by worker bees?

- (a) One of the eggs hatches into the next queen.
- (b) The eggs are invariably destroyed by other worker bees.
- (c) Each worker tries to hide her eggs from the other worker bees.
- (d) The eggs are less likely to be harmed by other workers if the queen is dead.

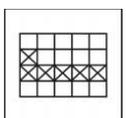
18. Select the figure that will come next in the figure series.



(a)



(b)



(c)

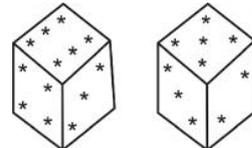
19. A, B and C have invested a sum of 215000 in a business. B invested Rs.10000 more than A and C invested Rs.15000 more than B. If the total profit is Rs.13200 at the end of year, then find their share of profit.

- (a) 3600, 4500, 5100
- (b) 3200, 5500, 4500
- (c) 3600, 5100, 4600
- (d) 5100, 4500, 3800

20. The average salary of all the employees in an office is 16000. The average salary of 7 senior employees is Rs 24000 and the average salary of rest of the employees is Rs 12000. How many employees work in that office ?

- (a) 21
- (b) 22
- (c) 24
- (d) 23

21. Two positions of a block are shown below. When 2(*) is at the bottom, which number will be at the top?



(i)

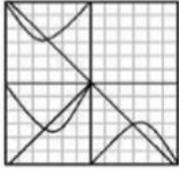
(ii)

- (a) 1
- (b) 4
- (c) 6
- (d) Cannot be determined

22. Trains A and B are 120 km apart and are approaching each other at constant rates with A moving at 130 km/hr. It takes 15 minutes for them to meet. Find the rate of train B.

- (a) 250 km/hr
- (b) 300 km/hr
- (c) 350 km/hr
- (d) 380 km/hr

23. Which answer figure will complete the pattern in the question figure?



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

Direction for questions 24 to 26: Read the following passage and answer the questions that follow the passage. Your answers to these items should be based on the passage only.

Passage 6

When you first arrive in a new culture, there is a period of confusion that comes from the new situation and from a lack of information. It leaves you quite dependent and in need of help in the form of information and above. The second stage begins as you start to interact with the new culture. It is called the stage of small victories. Each new encounter with the culture is fraught with peril. It is preceded by anxiety and information collection and rehearsal. Then the even occurs and you return home either triumphant or defeated. When successful, the feelings really are very much as though a major victory has been won. A heightened roller coaster effect is particularly characteristic of this stage.

The support needed is emotional support, people who appreciate what you are going through and who can cheer you onward. It often happens that once some of the fundamentals of life are

mastered, there is time to explore and discover the new culture. This is the honeymoon stage of wonder and infatuation, in it there is a heightened appreciation of the new, the different, the aesthetic. Depending on the degree of cultural immersion and exploration it may continue for a considerable period of time. During this time there is no interest in attending to the less attractive downsides of the culture.

After a while, a self-correction takes place. No honeymoon can last forever. Irritation and anger begin to be experienced. Why in the world would anyone do it that way? Can't these people get their act together? Now the deficits seem glaringly apparent. For some people, they overwhelm the positive characteristics and become predominant.

Finally, if you are lucky enough to chart a course through these stages and not get stuck (and people do get stuck in these stages), there is a rebalance of reality. There is the capacity to understand and enjoy the new culture without ignoring those features that are less desirable. This cultural entry and engagement process is both cognitive and affective. New information is acquired and remembered; old schema and perceptions are revised and qualified. An active learning process occurs.

At the same time, anxiety arises in reaction to uncertainties and the challenges of the learning processes. It must be managed, as must the extremes of feeling that occur in this labile period. Thus, I am describing a learning process that results in valuing and affirming the best in the culture while at the same time seeing it in its completeness, seeing it whole. The capacity to affirm the whole- including those aspects that are less desirable yet are part of the whole – is critically important. An appreciative process, "appreciative inquiry" is proposed as a way of helping members of different cultures recognize and value their differences and create a new culture where different values are understood and honoured.

Executives - those who must lead this culture-change projects – need to understand that equal employment opportunity,

affirmative action and sexual harassment policies, as viewed and implemented in organizations, are problem oriented change strategies. They focus on correcting what is wrong rather than creating a valued future. Executives themselves will need to inquire appreciatively into cultures that are not known to them before they are equipped to lead cultural change in their own organizations.

24. Which of the following is true?

- (a) Infatuation and heightened appreciation with a new culture can be maintained forever.
- (b) Entry to a new culture evokes an extremely negative feeling.
- (c) Affirmation of a new culture involves viewing it in its entirety with its strengths as well as weak points.
- (d) Organizational policies to deal with sexual harassment can bring about a change in the organizational culture.

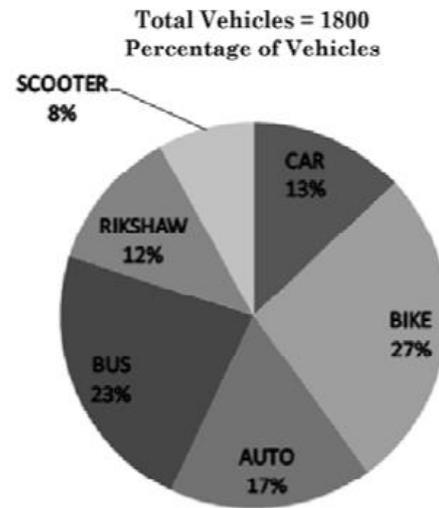
25. Which of the following statements cannot be inferred from the above passage?

- (a) Acts that are meaningful in the familiar culture cannot be taken for granted in a new one.
- (b) Social interaction becomes less predictable in a new culture.
- (c) Seeing someone in completeness means accepting him with his strengths and weaknesses.
- (d) Modifications in organization culture must result in appreciative inquiry.

26. Which of the following statements is not true?

- (a) A particular effect of interaction with a new culture is an opportunity to enjoy a roller coaster ride.
- (b) Entering a new culture brings about a shift in processes of thinking and feeling.
- (c) An initial sense of wonder and awe makes a new entrant oblivious to the less pleasant side of the new culture.
- (d) Some people can forever remain angry and dissatisfied with the new culture.

Direction (Q.27-29): The following pie chart shows the percentage of the different vehicles in a small town. Study the information carefully and answer the questions that follows:



27. If total number of buses is increased by 50% and total number of rickshaws is decreased by 25% then find the ratio of new number of buses to new number of rickshaws?

- (a) 23 : 6
- (b) 6 : 23
- (c) 21 : 7
- (d) 7 : 21

28. What is the difference between the number of bikes and number of scooters together and number of cars, number of auto, and number of rikshaw together, if number of bikes is decreased by 36 and number of auto is decreased by 16?

- (a) 146
- (b) 140
- (c) 135
- (d) 152

29. If number of buses is increased by 26 and number of cars is decreased by 26, then number of cars approximately is what percent of the of number of buses?

- (a) 40%
- (b) 47%
- (c) 53%

(d) 60%

Direction (Q. 30 - 33): The table below shows the estimated cost (in Rs. Lakh) of a project of laying a railway line between two places.

	1988	1989	1990	1991
Surveying	41.5	7.5	2.2	0.5
Cement	-	95.0	80.0	75.0
Steel	-	70.0	45.0	60.0
Bricks	-	15.0	12.0	16.0
Other building material	-	25.0	18.0	21.0
Labour	2.1	25.0	20.0	18.0
Administration	7.5	15.0	15.0	14.0
Contingencies	1.0	15.0	4.2	5.0
Total	52.1	267.5	196.4	209.5

30. After preparing the estimate, the provision for contingencies is felt inadequate and is therefore doubled. By what percent does the total estimate increase?

- (a) 3.47
- (b) 2.45
- (c) 1.50
- (d) 3.62

31. It is found at the end of 1990, that the entire amount estimated for the project has been spent. If for 1991, the actual amount spent was equal to that which was estimated, by what percent (approximately) has the actual expenditure exceeded the estimated expenditure?

- (a) 39
- (b) 29
- (c) 19
- (d) 9

32. If the cost of materials rises by 5% each year from 1990 onwards, by how much will the estimated cost rise?

- (a) Rs. 11.4 lakh
- (b) Rs. 16.4 lakh
- (c) Rs. 21.4 lakh
- (d) Rs. 26.4 lakh

33. If the length of line to be laid each year is in proportion to the estimated cost for material and labour, what fraction of the total length is proposed to be completed by the third year?

- (a) 0.9
- (b) 0.7
- (c) 0.6
- (d) 0.3

34. A, B and C invest in a business in the ratio of 22 : 30 : 23. After 4 months, A increases his share by 50% and after 6 months B decreases his share by 50%. If the total profit at the end of one year be Rs 44900, then B's share in the profit is-

- (a) 300
- (b) 500
- (c) 12000
- (d) 13800

Direction (Q. 35-36): Read the passages and answer the questions that follows it.

PASSAGE 7

The theory of games is suggested to some extent by parlour games such as chess and bridge. Friedman illustrates two distinct features of these games. First, in a parlour game played for money, if one wins the other (others) loses (lose). Second, these games are games involving a strategy. In a game of chess, while choosing what action is to be taken, a player tries to guess how his/her opponent will react to the various actions he or she might take. In contrast, the card-pastime, 'patience' or 'solitaire' is played only against chance.

35. Which one of the following can best be described as a 'game'?

- (a) The team of Tenzing Norgay and Edmund Hillary climbing Mt. Everest for the first time in human history.
- (b) A national level essay writing competition.
- (c) A decisive war between the armed forces of India and Pakistan over

Kashmir.

- (d) Oil Exporters' Union deciding on world oil prices, completely disregarding the countries which have at most minimal oil production.

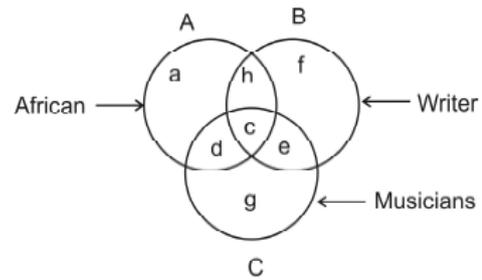
PASSAGE 8

The problem of traffic congestion in Athens has been testing the ingenuity of politicians and town planners for years. But the measures adopted till date have not succeeded in decreasing the number of cars on the road in the city centre. In 1980, an odds and evens number-plate legislation was introduced, under which odd and even plates were banned in the city centre on alternate days, thereby expecting to halve the number of cars in the city centre. Then in 1993, it was decreed that all cars in use in the city centre must be fitted with catalytic converters; a regulation had just then been introduced, substantially reducing import taxes on cars with catalytic converters, the only condition being that the buyer of such a 'clean' car offered for destruction a car at least 15-year-old.

36. Which one of the following options, if true, would best support the claim that the measures adopted to date have not succeeded?
- (a) In the 1980s, many families purchased second cars with the requisite odd or even number plate.
 - (b) In the mid-1990s, many families found it feasible to become first-time car owners by buying a car more than 15-year-old and turning it in for a new car with catalytic converters.
 - (c) Post-1993, many families seized the opportunity to sell their more than 15-year-old cars and buy 'clean' cars from the open market, even if it meant forgoing the import tax subsidy.
 - (d) All of the above

37. In the figure below there are three intersecting circles each represents a certain section of people different region are marked e.g. Read the statement in each of the following questions and choose the letter of the

region which correctly represent the statements.



Africans who are musicians but not Writers is represented by ?

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

38. Examine the statement given below:

Statements:

All pens are pin.

Some pins are not nut.

All nuts are cap.

Conclusions:

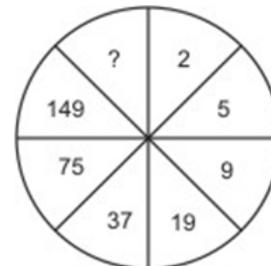
I. Some nuts are not pin.

II. Some pins are not cap.

Which of the above conclusion is correct?

- (a) Neither I nor II
- (b) Only II
- (c) Both I and II
- (d) Only I

39. In the following question, select the number which can be placed in the question mark (?) from the given alternative



- (a) 258
- (b) 299
- (c) 198
- (d) 302

40. The day on 15th April of a year will be the same day on the 15th of which month of the same year?

- (a) 15th June
- (b) 15th August
- (c) 15th July
- (d) 15th October

41. Ravi is the oldest member in a family of five persons. Ravi has three children including Mina who has equal number of brother and sister. Rinki is the mother of Pinki who is the sister of Mina. How many male members are there in the family?

- (a) One
- (b) Two
- (c) Three
- (d) Cannot be determined

PASSAGE 9

According to McNeill, a Brahmin priest was expected to be able to recite at least one of the Vedas. The practice was essential for several centuries when the Vedas had not yet been written down. It must have had a selective effect, since priests would have been recruited from those able or willing to memorize long passages. It must have helped in the dissemination of the work, since a memorized passage can be duplicated many times.

42. Which of the following can be inferred from the above passage?

- (a) Reciting the Vedas was a Brahmin's obligation.
- (b) The Vedic priest was like a recorded audio cassette.
- (c) McNeill studied the behaviour of Brahmin priests.
- (d) Vedic hymns had not been scripted.

Direction (Q.43-44): The table given below shows a survey carried out at a railway station for the arrivals and departures of trains for the month of March 2005. Study the table and answer the following questions

Delay (in Min)	Number of Arrivals	Number of Departures
0	1350	1540
0-30	120	92
30-60	41	17
Over 60	9	4
Total	1520	1653

43. If the punctuality of railways is defined as the number of occasions on which trains arrived or departed in time as a percentage of total number of arrivals and departures from the station, then the punctuality for the month under observation is—

- (a) 91%
- (b) 85%
- (c) 80%
- (d) 99%

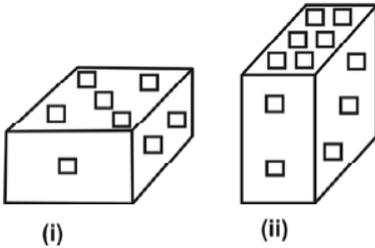
44. The total number of late arrivals of trains is—

- (a) 150
- (b) 170
- (c) 200
- (d) 230

45. Point Q is to 8 meters the south of point P. Point S is 5 meters to the north-east of point T which is 3 meters to the south of point Q. Point R is 8 meters to the north of point S. The shortest distance between point Q and point S is 4 meters. Which direction is point P with respect to point R?

- (a) North East
- (b) East
- (c) South West
- (d) West

46. Two positions of a parallelogram are shown below. When the number 3 will be on the top side, then which number can be at the bottom?



- (a) 2
- (b) 4
- (c) 5
- (d) 6

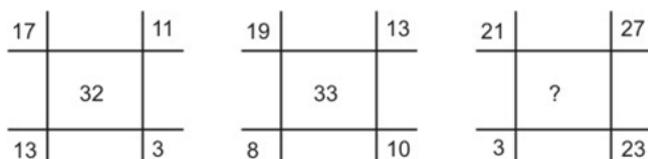
47. A certain race is made up of three stretches: A, B and C, each 2 km long, and to be covered by a certain mode of transport. The following table gives these modes of transport for the stretches, and the minimum and maximum possible speeds (in km/hr) over these stretches. The speed over a particular stretch is assumed to be constant. The previous record for the race is 10 min.

		Min.	Max.
A	Car	40	60
B	Motorcycle	30	50
C	Bicycle	10	20

Mr Tortoise completes the race at an average speed of 20 km/hr. His average speed for the first two stretches is four times that for the last stretch. Find the speed over stretch C.

- (a) 5 km/hr
- (b) 12 km/hr
- (c) 10 km/hr
- (d) This is not possible

48. Consider the figures given below:



- (a) 34

- (b) 58
- (c) 70
- (d) 72

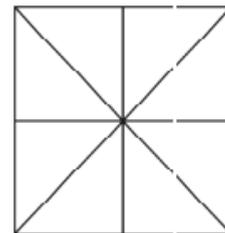
49. A thief is noticed by a policeman from a distance of 300 m. The thief starts running and the policeman chases him. The thief and the policeman run at the rate of 12 km and 13 km per hour respectively. What is the distance between them after 6 minutes?

- (a) 200 m
- (b) 150 m
- (c) 100 m
- (d) 250 m

50. A man travels from A to B at a speed x km/hr. He then rests at B for x hours. He then travels from B to C at a speed $2x$ km/hr and rests for $2x$ hours. He moves further to D at a speed twice as that between B and C. He thus reaches D in 16 hr. If distances A-B, B-C and CD are all equal to 12 km, the time for which he rested at B could be

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

51. How many triangles are there in the following figures?



- (a) 16
- (b) 12
- (c) 10
- (d) 14

52. In a four-digit number, the sum of the first 2 digits is equal to that of the last 2 digits. The sum of the first and last digits is equal to the third digit. Finally, the sum of the second and fourth digits is twice the sum of the other 2 digits.

What is the third digit of the number?

- (a) 5
- (b) 8
- (c) 1
- (d) 4

53. A and B can separately finish a piece of work in 25 days and 75 days respectively. They worked together for 10 days, after which B was replaced by C. If the work was finished in the next 7 days, then the number of days in which C alone could do the work is-

- (a) 75/2 days
- (b) 37 days
- (c) 39 days
- (d) 38 days

Direction (Q. 54-57): Read the passage carefully and answer the questions given below.

PASSAGE 10

It is difficult to predict revolutions. George Rude, the leading left-wing historian of the French Revolution once wrote that an intelligent observer of the French scene, native or foreign, would hardly have predicted in 1787 the coming of the revolution despite a variety of straws in the wind.

There was probably no closer student of France at the time than Arthur Young, the leading British expert on agriculture, who visited France three times for extended periods on the eve of the revolution. While he saw a number of things that were wrong with the country, he certainly did not realize that a great revolution was coming. Not as unusual as one might think. In Russia, there was no more ardent a protagonist of the revolution than Vladimir Ilich Lenin, who had devoted his whole life to the cause. And yet Lenin, in a lecture in Bern in January 1917, was quite pessimistic about the prospects of the masses rising up, telling his audience that the great event might not even happen in his lifetime. But it did happen just one month later. And by the end of the year, his party, the Bolsheviks, had taken power. In our age it seems to have become even more difficult to make these sorts of predictions, perhaps because there has not been a revolution

for a long time. The term is bandied about rather freely and carelessly. When I was asked many years ago to prepare the entry "revolution" for the Encyclopedia of the Social Sciences there was broad agreement that a revolution was something sui generis; today it seems to have become a synonym for rebellion, coup d'etat, mutiny, uprising and half a dozen other forms of upheaval. All too often we forget a once generally-accepted principle: namely that a true revolution involves a number of preconditions. First, there is the spark needed to trigger the uprising. In 1917 it was a strike in Petrograd; the revolution in Munich in 1848 broke out because an umbrella had fallen (or was thrown down) from the top seats of a theater and the public mistook the noise for a gunshot; in Brussels in 1830 the performance of a romantic opera (La Muette de Portici) in which the aria of Masaniello, a Neapolitan fisherman, denounced the injustices which had been committed by the Spanish Habsburg rulers, led to the division between Belgium and Holland.

In the case of the Arab awakening of 2011, 46-year-old policewoman Fedia Hamdi struck Mohamed Bouazizi, a Tunisian stallholder in a market, and in protest he burned himself alive (in the subsequent investigation it appeared that in fact Hamdi had not struck him—and she was acquitted). But there was enough tension and discontent within the country and in particular with Zine el-Abidine Ben Ali—that had it not been for the unfortunate Bouazizi, some other incident might well have caused the overthrow of the regime.

Next, for a revolution to succeed, it needs a revolutionary movement capable of making use of it. And unless the party in power, the establishment, has been greatly weakened—lost its self-confidence and the popular support on which it rests—the revolutionary movement may still be defeated. Extreme and efficient dictatorships—such as that of Hitler or Stalin—leave no room for maneuver. Even in the case of Tsarist Russia it took a lost war (1904/5) and three years of heavy losses (close to two million killed) in another to bring about a revolution. Tocqueville observed that a dictatorial regime faces the greatest danger when it is trying to reform itself.

54. The author may agree with which of the following?

- (a) Lenin was unaware of his party's plans to bring about a revolution a month later.
- (b) Lenin, one of the main proponents of a revolution, was unable to anticipate when the revolution would occur.
- (c) To show a similarity between the French Revolution with the Russian Revolution.
- (d) To present the view that revolutions take place spontaneously.

55. The author cites Lenin to show that

- (a) the Russian revolution took place much after the French revolution.
- (b) the French revolution was a precursor to the Russian revolution.
- (c) he was a revolutionary who did not possess the necessary vision.
- (d) predicting the coming of a revolution is not an easy task.

56. It can be inferred from the passage that

- (a) A variety of indications of the French revolution was available in the wind.
- (b) Arthur Young could not predict the coming of the French Revolution.
- (c) Native and foreign observers predicted in 1787 the coming of the French Revolution.
- (d) Both (a) & (b).

57. What is the main idea of the passage?

- (a) To show that the French or the Russians are not good at predicting the future.
- (b) To discuss the conditions necessary for calling any event a 'revolution'.
- (c) To discuss the preconditions that lead to a revolution.
- (d) To highlight that it is difficult to predict revolutions.

Direction (Q. 58-60): Read the following information carefully to answer the following questions.

Eight persons viz. A, B, C, D, E, F, G and H are living on eight different floors of the same building. The building has nine floors, bottommost floor is numbered as first, the floor above it as

second and so on till the topmost floor which is numbered as ninth. One of the floor is empty. A lives on an odd numbered floor above third floor. A and B lives on consecutive floors. E lives on an even numbered floor. Only four persons live between C and F. Only one person lives between G and F. More than two floors are there between the floors on which C and D lives. Only three persons lives between H and A. H lives on an even numbered floor. No one lives between A and D.

58. Who among the following lives on the bottommost floor?

- (a) G
- (b) H
- (c) A
- (d) C

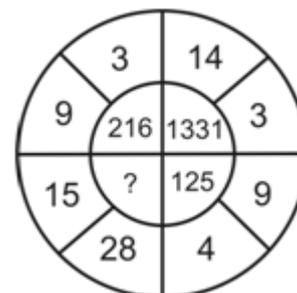
59. How many persons are living above D?

- (a) 3
- (b) 2
- (c) 4
- (d) None of these

60. Which of the following persons lives above H but below E?

- (a) There is no such person
- (b) F
- (c) G
- (d) A

61. In the following question, select the number which can be placed in the question mark (?) from the given alternative



- (a) 2197
- (b) 343
- (c) 2144
- (d) 1231

62. Ram deposited a certain sum of money in a post-office at 12% per annum for 4 years and deposited an equal amount in fixed deposit in a bank for 5 years at 15% per annum. If the difference in the interest from two sources is 1350, find the sum deposited in each case.

(a) 5000
(b) 15000
(c) 10000
(d) 2500

63. A man is standing on a railway platform which is 180 meters long. He observes that a train crosses the platform in 20 seconds but himself in 8 seconds. Find the length of the train and its speed?

(a) 120 m, 54 kmph
(b) 120 m, 120 kmph
(c) 54 m, 120 kmph
(d) 54 m, 54 kmph

64. The average temperature of Monday, Tuesday and Wednesday was 60°C. The average temperature of Tuesday, Wednesday and Thursday was 65°C. The temperature on Thursday was 62°C. Find the temperature of Monday.

(a) 42°C
(b) 47°C
(c) 52°C
(d) 77°C

65. 20% of students of a particular course get jobs within one year of passing. 20% of the remaining students get jobs by the end of second year of passing. If 1600 students are still jobless, how many students had passed the course?

(a) 3200
(b) 6400
(c) 2500
(d) 10000

66. Mohan has coins of 50 paise, 25 paise and Rs. 1.50 in the ratio of 1 : 2 : 3. Mohan stays in a country where all are valid currency coins. Also, that country has Rs. equal to 100 paise). How many coins of 25 paise does Mohan have,

if he has got Rs. 6600 in all?

(a) 2000
(b) 2200
(c) 2400
(d) 2600

Direction: In question number 67, one statement is given followed by two conclusions. You have to consider the statements to be true even if they seem to be at variance from the commonly known facts. You have to decide which of the given conclusion follows from the given statements.

67.Statement:

Recent trends indicate that the number of child migrants in large cities is increasing. These children leave their families to join the ranks of urban poor doing odd jobs in markets, workshops, hotels or in service sectors.

Conclusions:

- I. Migration to big cities should be checked.
- II. The plight of poor children should be thoroughly studied.

- (a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either I or II follows.
(d) If neither I nor II follows.

68. In a class of 35 students, a boy is ranked 20th. When two boys joined, his rank dropped by one. What is his new rank from the bottom?

(a) 15th
(b) 16th
(c) 17th
(d) 18th

69. If Nerra says, "Anuradha's father Ravi is the only son of father-in-law Manish", then how Bindu, who is the sister of Anuradha, is related to Manish?

(a) Daughter
(b) Wife
(c) Daughter-in-law
(d) Granddaughter

Directions (70-73) : Read the following three passages and answer the items that follow each passage.

PASSAGE 11

Scientists have long speculated about the possibility of life on Mars because of the proximity and likeness of Mars to Earth. As early as the mid 17th century, astronomers observed polar ice caps on Mars and by the mid 19th century, scientists discovered other similarities to Earth, including the length of day and axial tilt. But in 1965, photos taken by the Mariner-4 probe revealed a Mars without rivers, oceans or signs of life. And in the 1990s, it was discovered that Mars, unlike Earth, no longer possessed a substantial global magnetic field, allowing celestial radiation to reach the planet's surface and solar wind to eliminate much of Mars's atmosphere over the course of several billion years. More recent probes have focused on whether there was once water on Mars. Some scientists believe that this question is definitively answered by the presence of certain geological landforms. Others put the different explanations, such as wind erosion or carbon dioxide oceans, may be responsible for these formations. Mars rovers, Opportunity and Spirit, which have been exploring the surface of Mars since 2004, have both discovered geological evidence of past water activity. These findings substantially bolster claims that there was once life on Mars.

70. The passage is primarily concerned with which of the following

1. Disproving a widely accepted theory.
2. Initiating a debate about the possibility of life on Mars.
3. Describing the various discoveries made concerning the possibility of life on Mars.

Select the correct answer using the code given below :

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 4 only

71. Each of the following discoveries is mentioned in the passage except :

1. Wind erosion and carbon dioxide oceans are responsible for certain geological landforms on Mars.
2. Mars does not have a substantial global magnetic field.
3. Mars does not currently have water activity.

Select the correct answer using the code given below :

- (a) 1 only
- (b) 2 only
- (c) 2 and 3 only
- (d) None of these

72. In the paragraph, the author most likely mentions the discovery of polar ice caps to suggest that :

1. Until recently Mars's polar ice caps were thought to consist largely of carbon dioxide.
2. Martian polar ice caps are made almost entirely of water ice.
3. Mars has many similarities to Earth, including the existence of polar ice caps.
4. Mars has only a small fraction of the carbon dioxide found on Earth and Venus.

Select the correct answer using the codes given below :

- (a) 1 and 2 only
- (b) 2 and 4 only
- (c) 3 only
- (d) 3 and 4 only

73. Each of the following can be inferred from the passage except :

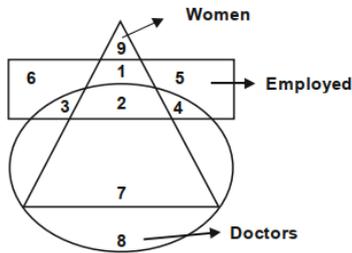
1. It is likely that there were few significant discoveries related to the possibility of the life on Mars prior to the mid 17th century.
2. The absence of a substantial global magnetic field on Mars suggests that it would be difficult to sustain life on Mars.
3. The claim that there was once water on Mars has only limited and indirect support from recent discoveries.

Select the correct answer using the code given below :

- (a) 1 only

- (b) 2 and 3 only
- (c) 2 only
- (d) 1, 2 and 3

74. In the following figure, which number represents the women doctors who are not employed?



- (a) 7
- (b) 3
- (c) 1
- (d) 8

75. Seven men A, B, C, D, E, F and G are sitting in a row in that order from left to right and each one is wearing a different coloured shirt among red, blue, yellow, green, violet, pink and black. The person who wears red coloured shirt sits to the right of D but is not F. The person who wears green coloured shirt sits to the left of C. G wears pink coloured shirt. F does not wear yellow coloured shirt. C wears blue coloured shirt. If A wears black coloured shirt, then the colour of the shirt worn by F is :

- (a) Yellow
- (b) Red
- (c) Green
- (d) Violet

76. In an election, the voting power was not used by 8% voters. There were only two candidates in this election. The elected candidate got 48% of the total votes and he defeated the other candidate by 1100 votes. How many total voters were there in the election?

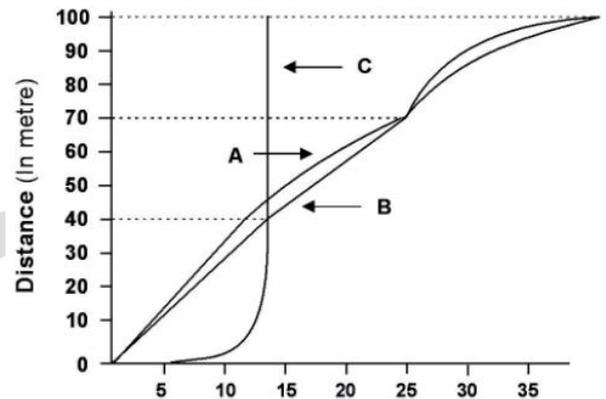
- (a) 21000
- (b) 23500
- (c) 22000
- (d) 27500

77. A one-rupee coin is placed on a plain paper. How many coins of the same size can be placed round it, so that each one

touches the central and adjacent coins?

- (a) 4
- (b) 3
- (c) 7
- (d) 6

78. A distance-time graph is shown below. The graph shows three boys A, B and C running for a 100 m race.



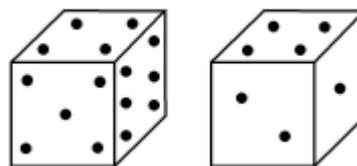
There are four statements given below :

1. The race was won by C.
2. A was ahead of B upto 70 m.
3. C is overtaking B at 40 m.
4. B ran very slowly from the beginning.

Which of the above statements are correct?

- (a) 1 and 2 only
- (b) 1, 2 and 3 only
- (c) 1, 3 and 4 only
- (d) 2, 3 and 4 only

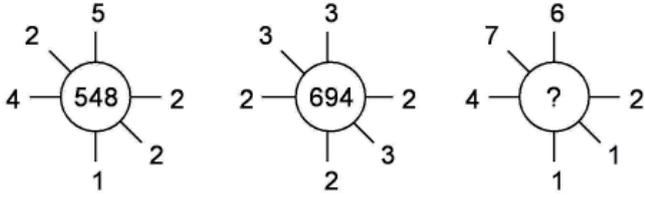
79. Consider the following figures and examine the situation.



When number 1 is at the top, which number will be at the bottom?

- (a) 1
- (b) 2
- (c) 3
- (d) 6

80. In the following question, there is some relationship based on a certain rule between the numerals given in each figure. Find the rule in each case and the correct alternative from among the four alternatives given under it to fill in the vacant place.



- (a) 678
- (b) 769
- (c) 824
- (d) 937