

MOCK CET MAHARASHTRA

Direction for questions 1 – 5: The following table shows the particulars regarding the members and the number of books issued to them December 1992 in a city. Refer to the following to answer the questions that follow.

	A	B	C	D	Total
No. of members	218	137	87	96	538
Books issued Novels	387	864	283	713	2247
Sports Magazine	58	137	-	-	195
Other books	24	126	382	410	942
	469	1127	665	1123	3384

- The maximum ratio of the number of novels issued to the different class of members is nearly:

(a) 9.44 (b) 5.35 (c) 6.32 (d) 7.43 (e) None of these
- The average number of books issued to any one member is nearly the average number of novels issued to any member of the class:

(a) A (b) B (c) C (d) D (e) None of these
- The number which is five times the excess of the total number of books issued to C class members over the total number of books issued to A class members is nearly the number denoting the total number of:

(a) members (b) sports magazine issued (c) novels issued
(d) other books issued (e) None of these
- If the number of novels issued to the class C and D were treated as Sports Magazine to these two classes, with no issue of novels to them, then the total number of Sports Magazine issued to the members of all classes, is :

(a) 54.3% (b) 60.45 (c) 50.7% (d) 55.5% (e) None of these
- The sum of the averages of the total number of books issued to the members of the different classes is nearly Times the average of the number of all the books issued to the members of all classes:

(a) 3.6 (b) 5.2 (c) 4.7 (d) 6.3 (e) None of these

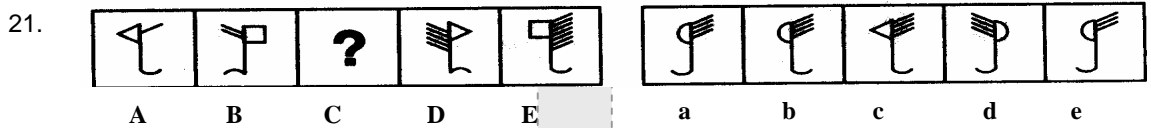
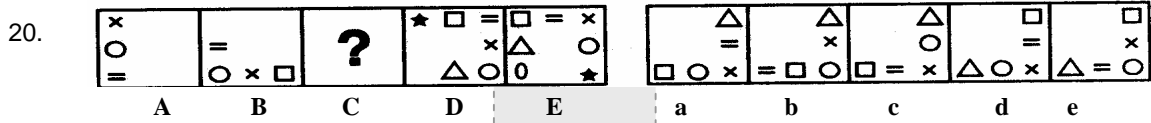
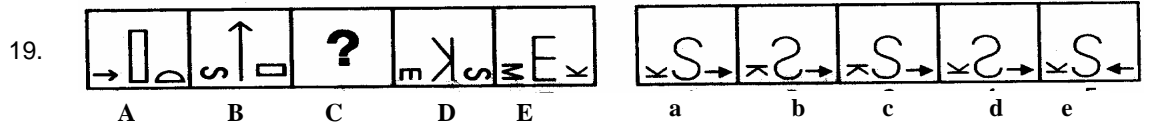
Direction for questions 6 – 15: Read the following passage, there are blanks, each of which has been numbered. These numbers are printed below the passage and against each, five words are suggested, one of which fits the blank appropriately. Find out the appropriate word in each case.

Khadi, like the Congress, has been out of (6)_____ with the masses and (7)_____ on the wane for quite some time now. Fashioned as an (8)_____ of the freedom struggle and popularized countrywide by Mahatma Gandhi, the (9)_____ of independence is in (10)_____ danger of going the way the Gandhi cap has already gone. That other (11)_____ symbol of ideology and national pride (12)_____ from the scene ages ago and as a popular headgear has been firmly (13)_____ by baseball caps in this era of liberalization. If khadi has largely been (14)_____ by the wash-'n' wear nylons and terylenes, its official discarding has now been (15)_____ by the Centre, which has withdrawn reimbursements of general and special rebates on its sales.

- | | | | | | |
|-----|-----------------|----------------|-----------------|----------------|----------------|
| 6. | (a) fashion | (b) gear | (c) favour | (d) reach | (e) date |
| 7. | (a) definitely | (b) clearly | (c) extensively | (d) recently | (e) lately |
| 8. | (a) instrument | (b) weapon | (c) implement | (d) apparatus | (e) agent |
| 9. | (a) sign | (b) symbol | (c) badge | (d) livery | (e) mark |
| 10. | (a) impending | (b) prominent | (c) clear | (d) certain | (e) imminent |
| 11. | (a) present | (b) past | (c) ubiquitous | (d) important | (e) famous |
| 12. | (a) vanished | (b) replaced | (c) removed | (d) withdrew | (e) expelled |
| 13. | (a) displaced | (b) replaced | (c) ousted | (d) eradicated | (e) discharged |
| 14. | (a) substituted | (b) reinstated | (c) replaced | (d) displaced | (e) removed |
| 15. | (a) indicated | (b) noted | (c) pointed | (d) directed | (e) signaled |

Direction for questions 16 - 21: Each of the following problems, contains five Problem Figures marked A, B, C, D and E and five Answer Figures marked a, b, c, d and e. Select a figure from amongst the Answer figures which will continue the same series as given in the Problem Figures.

	PROBLEM FIGURES					ANSWER FIGURES				
16.										
	A	B	C	D	E	a	b	c	d	e
17.										
	A	B	C	D	E	a	b	c	d	e
18.										
	A	B	C	D	E	a	b	c	d	e



22. If the sum measures of angles of a regular polygon is 12 right angles, then the polygon has:
 (a) 5 sides (b) 8 sides (c) 9 sides (d) 10 sides (e) None of these

23. If a is a real number such that $0 < a < 1$, then:
 (a) $a^2 < a$ (b) $a^2 > a$ (c) $a^2 > 1$ (d) $a^2 = a$ (e) None of these

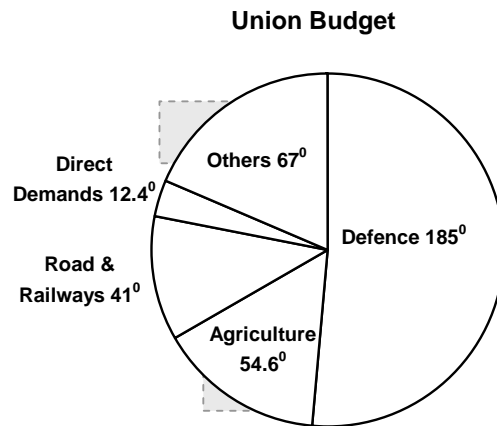
24. By what smallest number must 34300 be multiplied in order to make it a perfect square?
 (a) 5 (b) 7 (c) 6 (d) 14 (e) None of these

25. In an MBA course, 15 % seats increase every year. If there were 800 students in 1990, what will be the student strength in 1992?
 (a) 920 (b) 1040 (c) 1840 (d) 1058 (e) None of these

26. Grapes cost a farmer Rs. 1300 per quintal to produce. He knows that 10% of the produce will be damaged in transportation 5% will rot away and 5% will be stolen. At what price/kg must he sell his grapes to realize a profit of 20%?
 (a) Rs.19.5 / kg (b) Rs 15.6 / kg (c) Rs 22.5/kg (d) Rs 12.3/kg (e) None of these

27. If A is $\frac{1}{4}$ of B and B is $\frac{1}{5}$ of C and C is $\frac{1}{3}$ of D , then determine the ratio $A : B : C : D$.
 (a) 1 : 2 : 20 : 60 (b) 1 : 4 : 20 : 60 (c) 2 : 3 : 30 : 60
 (d) 1 : 2 : 50 : 190 (e) None of these

Direction for questions 28 - 32: The following pie chart shows the allotment of Union budget for different categories. Refer to the graph to answer the questions that follow.



28. Items displaying nearly 1 : 15 ratio are :
- (a) Defence and Direct demands (b) Road & Railways and Defence
 (c) Direct demands and others (d) Direct demands and Defence
 (e) None of these
29. If the total budget is Rs.20,000 cores, the percentage excess of defence expenditure over the rest is :
- (a) 100% (b) less than 10%
 (c) more than 15% (d) 250% (e) None of these
30. If the total budget for the Union is Rs.14, 400 crores the expenditure on Agriculture is most nearly :
- (a) Rs.2284 crore (b) Rs.2100 crore (c) Rs.2200 crore
 (d) Rs.2300 crore (e) None of these
31. If the total budget next is twice the present but the break-up remains the same, the ratio of expenditures on Agriculture to others is most nearly :
- (a) 5 : 6 (b) 2 : 1 (c) 1 : 2 (d) 2:3 (e) None of these
32. If the total budget for the union is Rs.3,60,000 crores, the sum of the expenditures on the following two items equals the expenditure on others.
- (a) Road and Railways and Direct demands (b) Agriculture and Direct demands
 (c) Agriculture and Road and Railways (d) Defence (e) None of these

Direction for questions 33 – 34:

A story book for children has 8 stories. Each story is told in three more pages than the previous one. If the total number of pages in the book is 124, then

33. The first story has how many pages?
- (a) 8 (b) 7 (c) 6 (d) 5 (e) None of these

34. In how many pages has the sixth story been told?
(a) 18 (b) 20 (c) 24 (d) 32 (e) None of these

Direction for questions 35 – 39: In the following questions, there is a relationship between the two terms to the left of :: and same relationship holds between the two terms to the right side. In each question, one term is missing. Find the term from the given alternatives and write its serial number on the answer sheet.

35. $49 : 125 :: 81 : ?$
(a) 36 (b) 729 (c) 25 (d) 343 (e) None of these

36. $8 : ? :: 15 : 65$
(a) 12 (b) 15 (c) 28 (d) 32 (e) None of these

37. $2 : 12 :: 36 : ?$
(a) 6 (b) 72 (c) 80 (d) 108 (e) None of these

38. $6 : 24 :: ? : 720$
(a) 504 (b) 512 (c) 600 (d) 620 (e) None of these

39. $29 : 32 :: 53 : ?$
(a) 58 (b) 60 (c) 72 (d) 80 (e) None of these

Direction for questions 40 – 44: Read each sentence carefully to find out whether there is any grammatical or idiomatic error in it. The error, if any, will be in one part of the idiomatic sentence. The number of that part is your answer. If there is no error, mark your answer as (e).

40. Kalpana was one person/ who could somehow manage/ to working in that office/ for such a long time./
(a) (b) (c) (d)
No error.
(e)

41. The number of people/ applying were so large/ that the college had to/ stop issuing application forms./
(a) (b) (c) (d)
No error.
(e)

42. Meghna was trying for admission/ in the Medical college/ even though her parents wanted/ her to
(a) (b) (c)
take up engineering./ No error.
(d) (e)

43. In spite of the late hour/ and the heavy rainfall/ Kiran decided to brave it out/ and stay outdoors./ No error.
- (a) (b) (c) (d)
- (e)

Direction for questions 44 – 49:

44. Mr. Partap undertook to do a certain piece of construction work in 15 days. Since 6 of the employed labourers were absent from the very first day, the rest could finish the work in 21 days. The original number of men employed were:
- (a) 15 (b) 19 (c) 12 (d) 21 (e) None of these
45. A runs 66.66% faster than B. If A gives B a start of 80 m, how far must the winning post be so that A and B might reach it in the same time?
- (a) 100 m (b) 200 m (c) 400 m (d) 150 m (e) None of these
46. The product of two numbers is 13125 and their HCF is 25. Their LCM is:
- (a) 150 (b) 175 (c) 325 (d) 525 (e) None of these
47. Three logs of wood 42 m, 49m, and 63 m long have to be divided into planks of the same length. What is the greatest possible length of each plank?
- (a) 6 m (b) 9 m (c) 17 m (d) 7 m (e) None of these
48. The price of sugar is raised by 25% by the Govt. By what % should a household reduce its consumption of sugar if expenditure is same?
- (a) 25% (b) 20% (c) 35% (d) 80% (e) None of these
49. The radii of the bases of a cylinder and a cone are in the ratio 3 : 4 ; the heights of the cylinder and the cone are in the ratio 2 : 3. Thus their volumes are in a ratio :
- (a) 9 : 8 (b) 3 : 4 (c) 8 : 9 (d) 4 : 3 (e) None of these

Direction for questions 50 – 53: Read each sentence carefully to find out whether there is any grammatical or idiomatic error in it. The error, if any, will be in one part of the idiomatic sentence. The number of that part is your answer. If there is no error, mark your answer as (e).

50. The bus flew off the road/ and fell into the river/ because the driver/ was driving faster./ No error.

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

51. Once she realised/ that she has committed a mistake,/ she admits it and/ corrects it without delay./ No

- (a) (b) (c) (d)
error.
(e)

52. Had he follow/ the instructions carefully,/ he would have felt/ much better./ No error.

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

53. Since the school does not accept cash, / you will have to bring/ a cheque so that to pay/ for your

- (a) (b) (c) (d)
tickets./ No error.
(e)

Direction for questions 54 – 63: Study the following information carefully and answer the question given below it.

Following are the criteria for getting employment in an electronics company: The candidate must –

- (1) have passed Graduation in Electronics Engineering with minimum 60% marks.
- (2) have completed 21 years of age on or before May 01, 1995.
- (3) be willing to pay deposit on the basis of marks secured at Graduation level as follows :

MARKS AT GRADUATION	IF RELATED TO ANY OF THE STAFF MEMBER	IF NOT RELATED TO ANY OF THE STAFF MEMBER
less than 75%	Rs. 8, 000	Rs. 12, 000
75% and above	Rs. 4, 000	Rs. 6, 000

- (4) In case of SC/ST candidates, the deposit payable would be 50% of the figure otherwise.
- (5) The candidates remitting the full amount of deposit in cash would be selected immediately.
- (6) The candidate remitting at least 75% of the amount of deposit in cash would be selected provisionally.
- (7) The candidate remitting at least 50% of the amount of deposit in cash is to be referred to the Director.
- (8) All other candidates would be rejected. Based on the above criteria, decide the course of action that should be taken in the case of each of the candidates given below.




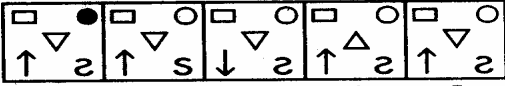
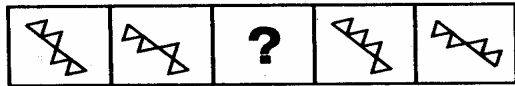
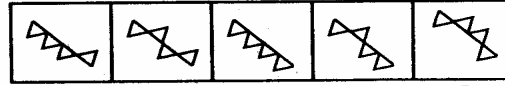
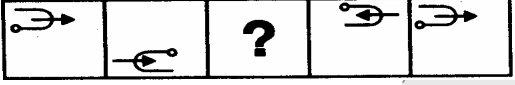
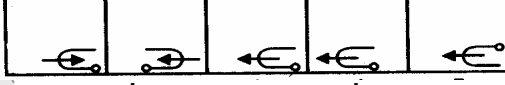
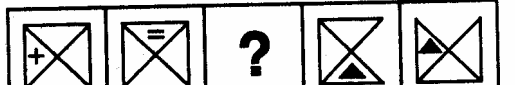
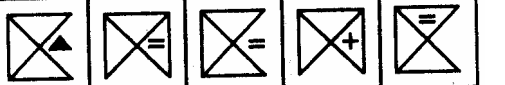
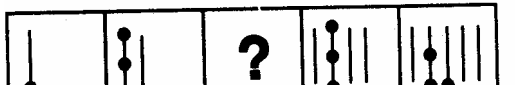

Give answer -

- (a) If the candidate is to be rejected
 - (b) If the candidate can be provisionally selected
 - (c) If the candidate is to be referred to the Director
 - (d) If the candidate can be selected
 - (e) If the data provided is inadequate to take any decision
54. Prashant, son of the Senior Design Engineer in the company has obtained 65% marks in B.E. (Electronics). He can pay the deposit of Rs. 8000 in cash. His date of birth is January 12, 1974, He is in "General" category.
55. Deepika, daughter of a teacher in a school obtained 76% marks in B.E. (Electronics). However, she can pay only Rs. 4000 as the deposit. She is in "General" category. Her date of birth is March 01, 1974.
56. Kailas, son of a Government Officer in Dept. of Agriculture, got 61% marks in B.E. (Electronics) examination. He belongs to "SC" category. He can pay Rs. 5000 as the deposit. He is 22 years old.
57. Shahrukh belongs to "General" category. He is son of a shopkeeper. He obtained 62% marks in B.E. (Electronics) examination. He is 23 years old. He can pay only Rs. 2000 as the deposit.
58. Lakharam belongs to "ST" category. His date of birth is September 09, 1972. He is son of a farmer. He got 76% marks in B.E. (Electronics) examination. He can pay Rs. 1800 as the deposit.
59. Joseph belongs to "General" category. He is son of the storekeeper of the company. He passed B.E. (Electronics) examination with 62% marks. He can pay Rs. 10000 as the deposit.
60. Manisha is a daughter of a Bank employee. She got 73% marks in B. E. (Electronics) examination. She belongs to "SC" category. She can pay Rs. 6000 as the deposit. Her date of birth is April 18, 1974.
61. Varnu belongs to "General" category. His date of birth is December 21, 1973. He got 77% marks in B.E. (Electronics) examination. He is son of a professor. He can pay Rs. 6000 as the deposit.
62. Ashwini belongs to "General" category. Her date of birth is June 06, 1976. She got 76% marks in B.E. (Electronics) examination. She is daughter of Senior Foreman of the company. She can pay Rs. 3000 as deposit.
63. Krishnaraj does not belong to SC/ST category. His date of birth is May 10, 1973. He is son of a businessman. He is in position to pay Rs. 20000 as deposit.

Direction for questions 64 – 69:

64. The expenses for a Saturday party vary as the number of guests (and thus are partly fixed and partly variable) When the number of guests are 200, the expenses are Rs. 1300 and when the number of guests are 250, the expenses are Rs. 1600. Thus, when the number of guests are 400, the expenses are:
- (a) Rs. 2550 (b) Rs. 250 (c) Rs. 2450 (d) 3000 (e) None of these
65. The HCF and the LCM of a pair of number are 12 and 924 respectively. How many such distinct pairs are possible?
- (a) 0 (b) 1 (c) 2 (d) 3 (e) None of these
66. If $[(X + 1)/X] + [X/(X + 1)] = 13/6$, then:
- (a) $X = 2, 3$ (b) $X = 2, -3$ (c) $X = -2, -3$ (d) $x = -2, 3$ (e) None of these
67. The positive value of $[\sqrt{6 + \sqrt{6 + \sqrt{6 + \dots \infty}}}]$ will be:
- (a) 2 (b) 5 (c) 4 (d) 3 (e) None of these
68. $\log_{125} (5\sqrt{5})$ is equal to:
- (a) $9/2$ (b) $9/6$ (c) $1/2$ (d) $6/9$ (e) None of these
69. The HCF of two numbers is 11 and their LCM is 693. If one of the numbers is 99, the other number will be:
- (a) 88 (b) 77 (c) 55 (d) 99 (e) None of these

Direction for questions 70 – 75: Each of the following problems, contains four Problem Figures marked A, B, C and D and five Answer Figures marked a, b, c, d and e. Select a figure from amongst the Answer figures which will continue the same series as given in the Problem Figures.

	PROBLEM FIGURES	ANSWER FIGURES
70.	 <p style="text-align: center;">A B C D E</p>	 <p style="text-align: center;">a b c d e</p>
71.	 <p style="text-align: center;">A B C D E</p>	 <p style="text-align: center;">a b c d e</p>
72.	 <p style="text-align: center;">A B C D E</p>	 <p style="text-align: center;">a b c d e</p>
73.	 <p style="text-align: center;">A B C D E</p>	 <p style="text-align: center;">a b c d e</p>
74.	 <p style="text-align: center;">A B C D E</p>	 <p style="text-align: center;">a b c d e</p>
75.	 <p style="text-align: center;">A B C D E</p>	 <p style="text-align: center;">a b c d e</p>

Direction for questions 76 – 83: The passage below is followed by questions based on its content. Answer the questions on the basis of what is stated or implied in the passage

PASSAGE

We call a man irrational when he acts in a passion, when he cuts off his nose to spite his face. He is irrational because he forgets that, by indulging the desire which he happens to feel most strongly at the moment, he will thwart other desires which in the long run are more important to him. If men were rational, they would take a more correct view of their own interest than they do at present; and if all men acted from enlightened self-interest the world would be a paradise in comparison with what it is. I do not maintain that there is nothing better than self-interest as a motive to action; but I do maintain that self-interest, like altruism, is better when it is enlightened than when it is unenlightened. In an ordered community it is very rarely to a man's interest to do anything which is very harmful to others. The less rational a man is, more often he will fail to perceive how

what injures others also injures him, because hatred or envy will blind him. Therefore, although I do not pretend that enlightened self-interest is the highest morality, I do maintain that, if it became common, it would make the world an immeasurably better place than it is.

Rationality in practice may be defined as the habit of remembering all our relevant desires, and not only the one which happens at the moment to be the strongest. Like rationality in opinion, it is a matter of degree. Complete rationality is no doubt an unattainable ideal, but so long as we continue to classify some men as lunatics it is clear that we think some men more rational than others. I believe that all solid progress in the world consists of an increase in rationality, both practical and theoretical. To preach an altruistic morality appears to me somewhat useless, because it will appeal only to those who already have altruistic desires. But to preach rationality is somewhat different, since rationality helps us to realise our own desires on the whole, whatever they may be. A man is rational in proportion as his intelligence informs and controls his desires. I believe that the control of our acts by our intelligence is ultimately what is of most importance, and what alone will make social life remain possible as science increases the means at our disposal for injuring each other. Education, the press, politics, religion-in a word, all the great forces in the world – is at present on the side of irrationality; they are in the hands of men who flatter King Demos in order to lead him astray. The remedy does not lie in anything heroically cataclysmic, but in the efforts of individuals towards a more sane and balanced view of our relations to our neighbours and to the world. It is to intelligence, increasingly wide-spread, that we must look for the solution of the ills from which our world is suffering.

76. Which of the following best summarises the central idea of the passage?
- (a) More of rationality and enlightened self-interest among more of us can help solve many of the problems the world is beset with.
 - (b) Altruism and rationality are the main indicators of intelligence.
 - (c) In the present state of the world, enlightened self-interest alone can help men live rationally.
 - (d) The world cannot be made more rational by altruism but by rationality.
 - (e) Education adds to intelligence and thus leads to rationality.
77. The author's attitude to modern developments in science and communication etc. can best be described as
- (a) cynical about their ultimate use
 - (b) skeptical about the uses they are put to
 - (c) one that of cautious acceptance
 - (d) one full of concern about their harmful potential
 - (e) one full for the need for greater awareness.
78. Rationality, according to the author, mainly signifies:-
- (a) having regard others
 - (b) intelligent control of one's desires
 - (c) the ability to cultivate a sane and balanced view of one's surroundings
 - (d) power to resist yielding to strong passions
 - (e) intelligent solution of problems.

79. According to the author,
- I. the more rational a man is, the more is his ability to know his true interests
 - II. the less rational a man is, the more likely he is going to disregard the interests of others
 - III. unenlightened altruism can be as disagreeable as unenlightened self interest
- (a) I & II only (b) I & III only (c) II & III only (d) I, II, III (e) None
80. The author feels that it is impracticable to appeal to altruism because
- (a) not all people are altruistic by nature
 - (b) in its impact, altruism is weaker than rationality
 - (c) altruism is considerably more refined a virtue than rationality
 - (d) none of the above
 - (e) all of these
81. An appeal to rationality, according to the author, can be greatly effective because:
- (a) in some degree everyone is rational
 - (b) by being rational people can satisfy their own desires
 - (c) rationality teaches self-control
 - (d) an appeal to rationality will be more readily accepted than an appeal to altruism
 - (e) it enhances perception
82. According to the author, the highest motive to action in life comes through:
- (a) enlightened self-interest
 - (b) enlightened altruism
 - (c) at balanced combination of enlightened self-interest and enlightened altruism
 - (d) none of the above
 - (e) all of these
83. 'The King Demos' refers to the:-
- (a) populace
 - (b) powerful
 - (c) politician
 - (d) scientist
 - (e) a legendary figure
84. If five chairs and three tables together cost Rs. 900 and if three chairs and five tables together cost Rs. 1180, then each chair and table resp. cost (Rs.):
- (a) 90, 250
 - (b) 65, 195
 - (c) 75, 195
 - (d) 60, 200
 - (e) None of these
85. A farmer ploughing his farm @ 10 m² per hour finishes his work at 6:00 pm. If he ploughs @ 12 m² per hour. He finishes his work at 4.00 pm. The total land area under consideration is:
- (a) 110 m²
 - (b) 100 m²
 - (c) 120 m²
 - (d) 200 m²
 - (e) None of these
86. The length of a rectangle is increased by 25%. By what percent should its breadth be decreased so that the area remains unchanged?
- (a) 25%
 - (b) 35%
 - (c) 15%
 - (d) 20%
 - (e) None of these

87. A rectangle is 8 cms longer than its width. A square of side X cms is cut out of it. If X cms is half the width of the rectangle, then the remaining area is:
- (a) $3X^2 + 18X$ cms² (b) $3X^2 + 16X$ cms² (c) $X^2 + 15$ cms²
(d) $3X^2 + 3$ cms² (e) None of these
88. A father's age is four times his son's present age. After 18 years the father's age will be twice his son's age. The father's and son's present ages are resp:
- (a) 9, 36 yrs (b) 10, 40 yrs (c) 8, 32 yrs (d) 36, 9 yrs (e) None of these

Direction for questions 89 – 94: The passage below is followed by questions based on its content. Answer the questions on the basis of what is stated or implied in the passage.

PASSAGE

My correspondent/conscience in Naperville, Russ Marineau, sent me an e-mail on Friday with the provocative subject line: "Can a journalist be patriotic?"

The message turned out to be an article that Russ was forwarding and that he commended to my attention with this note: "The following represents the thought of a lot of people. The mainstream [?] media, including the Tribune continue to ignore and insult them. Is it any wonder we no longer depend on the mainstream [?] media and the Tribune for our news."

And the article itself? It seemed actually to be a press release from an organization called Accuracy in Media, and it carried the headline, "Media to blame for military-recruiting crisis."

The lead paragraph read: "Can the U.S. find enough military volunteers to stay the course in Iraq and win? It's doubtful, says Cliff Kincaid, editor of Accuracy in Media [AIM], if we continue to suffer from a major media that almost constantly undermines the war effort."

You can see where this is headed, right? The armed forces' recent difficulties in fulfilling their recruitment goals have nothing to do with the persistence of a frustrating war for a dubious cause against a vicious enemy; nothing to do with the fact that kids recognize you can get killed doing military work; nothing even to do with the fact that Bush-led economic growth may have created attractive options for people who otherwise might have seen the armed forces as their only avenue to employment.

Nope. It all comes down to the doomsaying, undermining, unpatriotic media. "Why join the armed forces," Kincaid is quoted, "when you not only have to fight the terrorists but the American media, which is doing their best to make our soldiers out to be human-rights abusers, torturers and killers?"

Somehow it always seems to get to this point, where daring to ask questions or point out inconvenient facts is called evidence of a lack of patriotism, or even of treason. That's what makes the recent Newsweek magazine episode so damaging. Newsweek's report--that military investigators had confirmed that U.S. interrogators at the Guantanamo Bay detention camp flushed a copy of the Koran down a toilet--raised embarrassing questions and pointed toward inconvenient facts, but didn't have truth in its favor.

It does no good to argue, as many have, that there is a deeper truth beneath the surface of the report that Newsweek retracted, that copies of the Koran really have been abused, that human beings have been abused, that the Guantanamo Bay detention camp is an affront to the most fundamental American values.

What is remembered is that Newsweek got it wrong on the Koran abuse story, that it touched off anti-American riots in Islamic countries, that it cost lives, that American military forces were more endangered as a result.

Asked in a telephone interview for other examples of the media tendency "of running with anything that makes the U.S. look bad," Kincaid cited CBS' breaking of the Abu Ghraib prison-abuse story last year; the "numerous occasions" when the media have credulously reported charges of human-rights abuses leveled by the likes of Amnesty International and Human Rights Watch; and the assertion of an ABC News correspondent during a talk-radio program that there is a "deep anti-military bias" in the White House press corps and a "hatred" of President Bush among some members of the press corps.

With all due respect to Kincaid, Russ Marineau and the whole lot of people who think and feel as they do, let me offer two responses to their accusations.

The first has to do not with the press, but with the nature of the so-called war on terror. Leaving aside that Iraq now is a theater of that war only because Bush insisted on making it one, the war on terror is a two-part affair. One part is the military effort to eradicate Al-Qaeda, the Iraqi insurgency and all the other purveyors of violence and terror. The second part, obscured by Bush's "if-you're-not-with-us-you're-against-us" rhetoric, is the campaign to win hearts and minds in the Arab and Islamic worlds away from the notion of the West as swaggering oppressors and to the concepts of democracy and respect for human rights.

If you should ever be so unlucky as to silence the Tribune and the rest of the mainstream media, what would you do then about the media in the rest of the world--in Europe, Asia, Africa and Latin America--that also insist on telling vicious truths about things like Abu Ghraib and Guantanamo and the rest?

My second response has to do with journalism and patriotism. The founders of our country were wise enough to appreciate paradox. They recognized that quiet doesn't necessarily mean peace; that silence doesn't always denote assent; that dissent doesn't mean disloyalty. Would it mean that we all were so wise?

89. Why is Media blamed for the Military Recruiting crisis?
- (a) Because it gives grueling accounts of what happens in wars.
 - (b) Because it is always speaking against war.
 - (c) Because it constantly undermines the war effort.
 - (d) Because it gives a bleak picture of the war.
 - (e) Because youngsters are more driven by the media towards other things.
90. What is the meaning of the word "treason"?
- (a) Patriotism
 - (b) Loyalty
 - (c) Brotherhood
 - (d) Disloyalty
 - (e) Disgrace
91. How can you explain the second response on the accusation of Kincaid?
- (a) Paradox is necessary in understanding patriotism.
 - (b) Disagreeing does not mean being disloyal too.
 - (c) Journalism does not always disagree with the country's policies.
 - (d) Journalists can never stay quiet and do their jobs.
 - (e) Journalists have to be vocal in their opinion, whatever it might be.

92. What is the meaning of the word "Purveyors" in the passage?
(a) Attackers (b) Suppliers (c) Promulgators (d) Violators (e) Teachers
93. What is the idea behind Bush's campaign?
(a) To downsize the Islamic countries.
(b) To eradicate the religiously fanatic notions of Islam.
(c) To divide the world into two parts.
(d) Win the concept of democracy and respect for human rights.
(e) To aim for peace and brotherhood in the whole world.
94. What would be the most appropriate heading for the passage?
(a) Journalism and it's loopholes (b) Journalism and it's related problems
(c) Call it treason or Patriotism? (d) Patriotism losing it's charm
(e) Journalism and patriotism
95. Given X, Y, Z are consecutive positive integers in ascending order and if $X + Y + Z$ is an even number, what may be a possible value of Z?
(a) 1 (b) 4 (c) 5 (d) 6 (e) None of these
96. A train running at 72 kmph crosses a bridge of length 160 meters in 20 seconds. What is the length of the train?
(a) 90 m (b) 240 m (c) 340 m (d) 140 m (e) None of these
97. What is the percentage increase in the value of the function $f(X) = X^2 + 3X + 4$, if the value of X is increased from 1 to 2?
(a) 60% (b) 100% (c) 75% (d) 50% (e) None of these
98. A rectangular block is of dimensions 4 cms, 5 cms by 6 cms Slices of base area 20 square cms and height 1 cm, 2 cms and 3 cms are made. What is the total surface area all such slices?
(a) 200 cm^2 (b) 144 cm^2 (c) 228 cm^2 (d) 114 cm^2 (e) None of these
99. The sum to n terms of an A.P is $n^2 + 5n$. Therefore the nth term of the A.P is.
(a) $n + 1$ (b) $n + 5$ (c) $2n + 5$ (d) $2n + 4$ (e) None of these

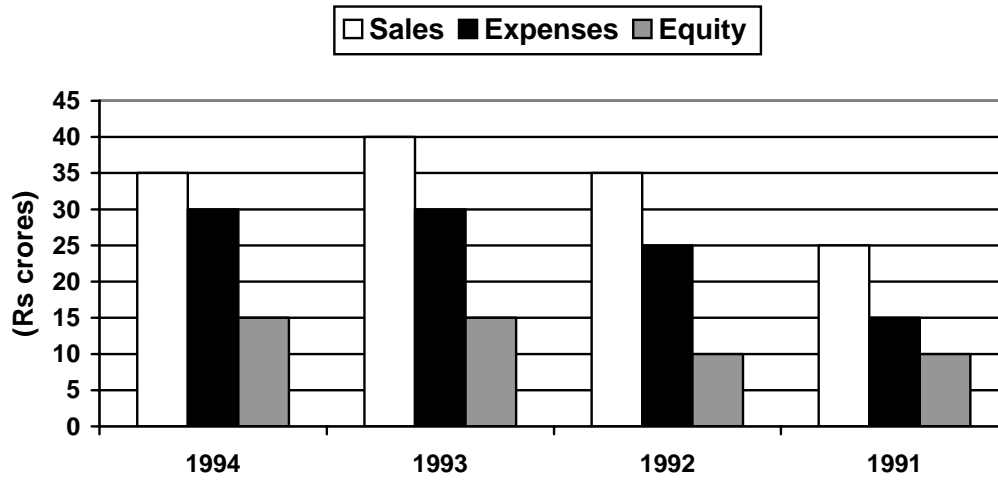
Direction for questions 100 – 104: Time figure shows the sales (S), Expenses (E) and the Equity Base (EB) of a company ABC Ltd. over different years in Rs. Crore. We define:

(1) Profit = Sales – expenses

(2) Shareholder's return = $\frac{\text{Profit}}{\text{Equity base}}$

(2) Profitability = $\frac{\text{Profit}}{\text{Sales}}$

Refer to the graph to answer the questions that follow.



100. Maximum profitability is attained during which of the following year:
 (a) 1992 (b) 1991 (c) 1993 (d) 1994 (e) None of these
101. Minimum shareholder's return is observed during which of the following year:
 (a) 1994 (b) 1991 (c) 1993 (d) 1992 (e) None of these
102. Minimum profitability is observed during which of the following year:
 (a) 1991 (b) 1992 (c) 1993 (d) 1994 (e) None of these
103. Total profit over the period shown is (Rs. Crore):
 (a) 30 (b) 45 (c) 35 (d) 25 (e) None of these
104. Total expenses over the entire period as a % of total sales for the same period is:
 (a) 68% (b) 74% (c) 60% (d) 80% (e) None of these

Direction for questions 105 - 109: In each question below, a word is underlined. Below this word, there are five words given which are letters (a), (b), (c), (d) and (e). One of these is either a synonym or antonym of the underlined word.

105. **Adversity**

- (a) poverty (b) wealth (c) misfortune (d) facility (e) progress

106. **Allegiance**

- (a) treason (b) obligation (c) faith (d) rift (e) affinity

107. **Conspicuous**

- (a) absent (b) distant (c) mysterious (d) noticeable (e) open

108. **Integrity**

- (a) truth (b) corruption (c) honesty (d) virtue (e) dishonour

109. **Temperate**

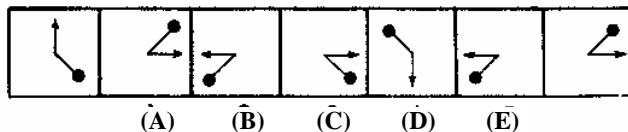
- (a) humid (b) extreme (c) dull (d) strong (e) moist

110. If $f(x) = \frac{x+1}{x-1}$ then $f[f(x)]$

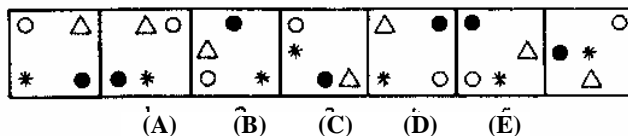
- (a) $\left(\frac{x+1}{x-1}\right)^2$ (b) $\frac{x-1}{x+1}$ (c) $x+1$ (d) x (e) None of these

Direction for questions 111 - 119: In each of the following questions, a series begins with the unnumbered figure on the extreme left. One and only one of the five-numbered figures does not fit into the series. The two unnumbered figures, one each on the extreme left and the extreme right fit into the series. You have to take as many aspects into account as possible of the figures in the series and find out the one and only one of the five-numbered figures which does not fit into the series. The number of that figure is your answer.

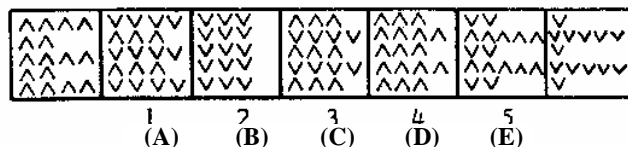
111.



112.



113.

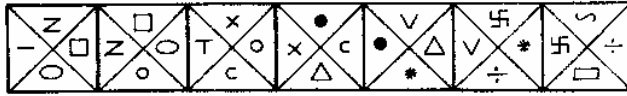


114.



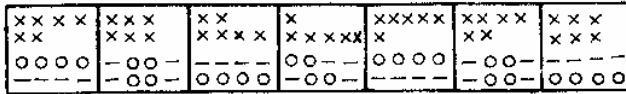
(A) (B) (C) (D) (E)

115.



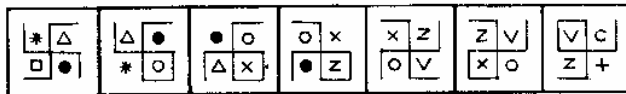
(A) (B) (C) (D) (E)

116.



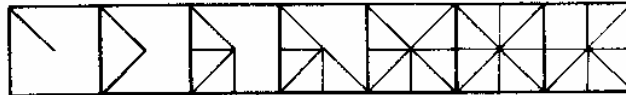
(A) (B) (C) (D) (E)

117.



(A) (B) (C) (D) (E)

118.



(A) (B) (C) (D) (E)

119.



(A) (B) (C) (D) (E)

120.



(A) (B) (C) (D) (E)

Direction for questions 121 – 126: In each of the following sentences, there are two blank spaces. Below each sentence, there are five pairs of words denoted by letters (a), (b), (c), (d) and (e). Find out which pair of words can be fitted in the blanks in the same sequence to make the sentence meaningfully complete.

121. A _____ is known for his _____.

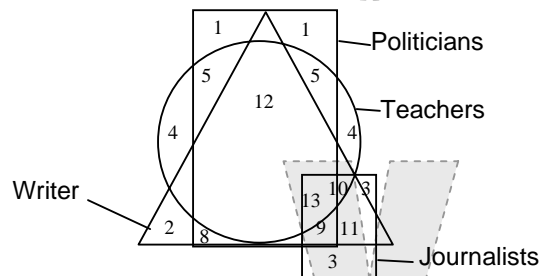
- (a) hypocrite – honesty (b) braggart – modesty (c) altruist – truthfulness
(d) mercenary – sincerity (e) philanthropist – benevolence

122. One _____ by which we may estimate the character of a man in public office is his _____.

- (a) hyperbole – intuition (b) criterion – integrity (c) amenity – civility
(d) scale – stability (e) idea – conduct

123. The driver's account of the accident was _____ but it was not _____ with the victim's account.
 (a) true – similar (b) plausible – relevant (c) brief – correct
 (d) splendid – believable (e) coherent – compatible
124. Because of his _____ honesty, employers tolerated his _____ outbursts and did not fire him.
 (a) rapacious – amenable (b) unwavering – irascible (c) amiable – regular
 (d) unwary – irritable (e) specious – misanthropic
125. The _____ law to increase old - age pensions was passed to _____ the hardships of the elderly voters in the State.
 (a) auspicious – mollify (b) expedient – alleviate (c) equivocal – aggravate
 (d) exemplary – condone (e) notorious – assuage
126. When I listened to his _____ arguments, all my doubts were _____ and I was forced to agree with his point of view.
 (a) competent – compelled (b) congruent – confirmed (c) cogent – dispelled
 (d) forceful – repelled (e) fluent – ignored

Direction for questions 127 – 132: In the given diagram, circle represents teachers; triangle represents writers, square represents journalists; and rectangle represents politicians. Now answer the following questions by selecting the correct alternative.



127. Which portion represents teachers, writers and journalists but not the politicians?
 (a) 8 (b) 9 (c) 10 (d) 11 (e) None of these
128. Which portion represents persons who are teachers as well as journalists?
 (a) 4 (b) 6 (c) 10 (d) 11 (e) None of these
129. Portion representing politicians teachers who are writers also, is :
 (a) 10 (b) 11 (c) 12 (d) 13 (e) None of these

130. Portion representing politician writers who are not journalists, is :
(a) 12, 8 (b) 11, 8 (c) 9 (d) 8 (e) None of these
131. Which portion represents politician teachers who are not journalists?
(a) 5, 13 (b) 5, 12 (c) 12, 13 (d) 5 (e) None of these
132. Which portion represents persons who are writers as well as journalists but are neither politicians nor teachers?
(a) 8 (b) 9 (c) 10 (d) 11 (e) None of these

Direction for questions 133 – 135: In each of the questions below, sentences are given which are denoted by (a), (b), (c), (d) and (e). By using all the five sentences, you have to frame a meaningful para. The correct order of the sentences is your answer. Choose from the five alternatives, the one having the correct order of sentences and mark it as your answer.

133. (A) Water can be effectively delivered through pipelines even in canal command areas wherever possible.
(B) The best example of the management of water by drip irrigation is provided by Israel, where arid regions are booming in production of cereals.
(C) This method is considered the most efficient for irrigation because there is 80-90 per cent irrigation efficiency while in traditional surface irrigation, it is only 35 percent.
(D) Drip irrigation is a technique for water management system in dry zone areas, where scarcity of rainfall exists.
(E) Water is provided to the roots of plants through water tubes, where there is no misuse of water.
(a) ABCDE (b) BEDAC (c) CDEAB (d) DEBAC (e) DECAB
134. (A) Environmental problems too are most acute in cities.
(B) The manner in which these are administered, so that the common services required by their citizens are provided efficiently is of crucial importance.
(C) Here populations are concentrated and commerce bustles.
(D) To cater to the needs of the city, resources of a vast hinterland are pressed into service.
(E) Cities are ant-hills of human colonists.
(a) ECDDBA (b) ABCDE (c) DCEAB (d) DABCE (e) EBDCA
135. (A) The cotton crop harvested last year was severely damaged by the leaf curl virus disease caused by the dreaded white fly.
(B) It came in from Pakistan where it damaged the crop for some years and affected cotton-growing areas in Rajasthan, Punjab and Haryana.
(C) Nearly 50 percent of pesticides used in India go into protecting the cotton crop.
(D) This is because cotton varieties grown in the country are highly vulnerable to insect pests and disease.
(E) The fly, milky white and minute, sucks the sap from the cotton leaves, causing them to curl and dry up.
(a) DCAEB (b) ADCBE (c) CDAEB (d) CDBEA (e) ABCDE

Direction for questions 136 – 140: In questions 136 – 140, a word consisting of four letters is written according to some code. Using the same code, another word may be written as one of the five alternatives given for that question. Find the correct alternative for each question and write its serial number on the answer sheet against the question.

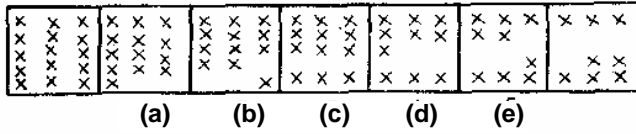
136. If DEAR is coded as WVZI then PALE will be encoded as
(a) KAOU (b) VOZK (c) KZOV (d) KZOU (e) UOZK
137. If 5432 stands for RUNG and 6108 for FAST then 8453 stands for
(a) TEST (b) TART (c) TUBS (d) TURN (e) None of these
138. POUR is written as RSAZ, WAKE may be written as:
(a) EGYT (b) EYGT (c) TGEY (d) YEQM (e) YGET
139. HAND is written as FXRI, ROTE may be written as :
(a) LPJX (b) PLXJ (c) LJPX (d) LXJP (e) PJLX
140. SKEW is written as POCY, MUST may be written as:
(a) QJVY (b) QYVJ (c) JYQV (d) QVYJ (e) JVYQ

Direction for questions 141 – 145: Which of the words/phrases (a), (b), (c) and (d) given below each sentence should replace the underlined word /phrase to make the sentence meaningful and grammatically correct? If no correction is required, the answer is (e).

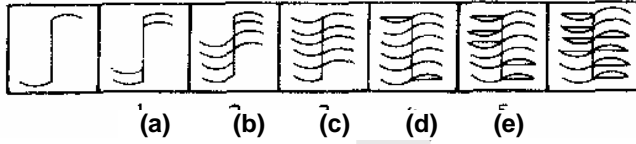
141. This box is more square than that one.
(a) most square (b) almost square (c) more nearly square
(d) nearly square (e) No correction
142. Being that I like stenography and typing, I plan to become a stenographer.
(a) That (b) Since (c) Having been (d) Being (e) No correction
143. There were not so many tickets available as was asked for.
(a) were (b) had (c) have (d) are (e) No correction
144. No sooner he had put down the receiver with a bang than the telephone rang again.
(a) He no sooner had (b) No sooner he (c) No sooner had he
(d) Had he no sooner (e) No correction
145. Knowledge is preferable even to riches.
(a) more preferable to (b) preferable than (c) more preferable than
(d) even more preferable to (e) No correction

Direction for questions 146 – 156: In each of the following questions, a series begins with the unnumbered figure on the extreme left. One and only one of the five-numbered figures does not fit into the series. The two unnumbered figures, one each on the extreme left and the extreme right fit into the series. You have to take as many aspects into account as possible of the figures in the series and find out the one and only one of the five-numbered figures which does not fit into the series. The number of that figure is your answer.

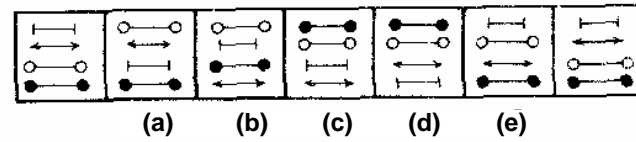
146.



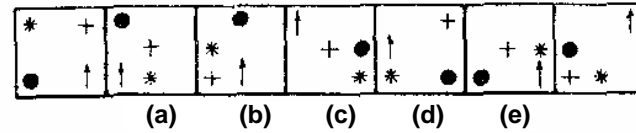
147.



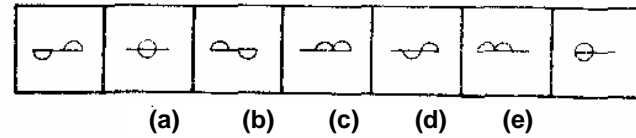
148.



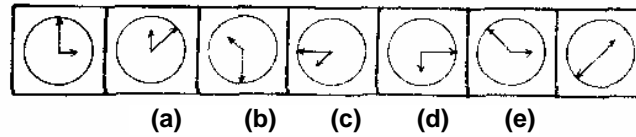
149.



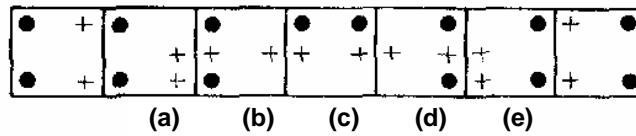
150.



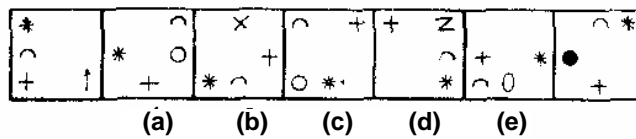
151.



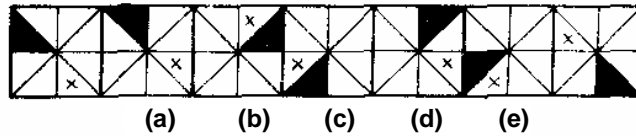
152.



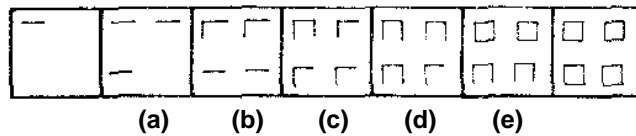
153.



154.



155.



Directions for questions 156 – 160: Choose the most appropriate word from among the given options to replace the underlined word in each sentence.

156. Despite its failures, the United Nations has been a good mediating body in international disputes.

- (a) However (b) In spite of (c) Though (d) Although (e) Nevertheless

157. We want a world where peace prevails.

- (a) dominates (b) exists (c) rules (d) persists (e) predominates

158. We have declared our right to think independently by remaining non-aligned.

- (a) acclaimed (b) publicized (c) divulged (d) indicated (e) proclaimed

159. In the chronicles of world history, Samrat Ashoka is hailed as the first ruler to renounce the use of force in empire-building.

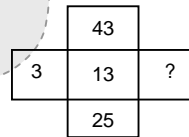
- (a) records (b) annals (c) legends (d) archives (e) scrolls

160. His Presence of mind and poise in times of trouble always encouraged his followers.

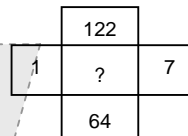
- (a) grace (b) confidence (c) stamina (d) aplomb (e) balance

Direction for questions 161 - 164: In each of the following questions, find the missing number from the given alternatives and write its serial number on the answer sheet.

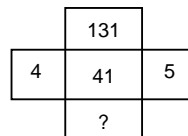
161. (a) 4 (b) 5
(c) 1 (d) 2
(e) None of these



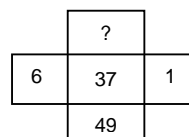
162. (a) 49 (b) 50
(c) 37 (d) 36
(e) None of these



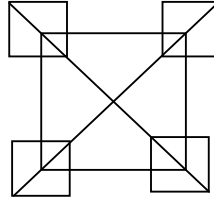
163. (a) 81 (b) 82
(c) 100 (d) 90
(e) None of these



164. (a) 25 (b) 84
(c) 87 (d) 93
(e) None of these



Direction for questions 165 – 167: Study the given figure and then select the correct answer from the given alternative for each question.



165. What is the number of triangles in the figure?
(a) 16 (b) 20 (c) 24 (d) 28 (e) None of these
166. How many squares are there?
(a) 5 (b) 8 (c) 9 (d) 13 (e) None of these
167. How many minimum straight lines are needed to draw this figure?
(a) 22 (b) 23 (c) 24 (d) 25 (e) None of these

Direction for questions 168 – 173: The passage below is followed by questions based on its content. Answer the questions on the basis of what is stated or implied in the passage.

PASSAGE

It has long been known that the rate of oxidative metabolism (the process that uses oxygen to convert food into energy) in any animal has a profound effect on its living patterns. The high metabolic rate of small animals, for example, gives them sustained power and activity per unit of weight, but at the cost of requiring constant consumption of food and water. Very large animals, with their relatively low metabolic rates, can survive well on a sporadic food supply, but can generate little metabolic energy, per gram of body weight. If only oxidative metabolic rate is considered, therefore, one might assume that smaller, more active, animals could prey on larger ones, at least if they attacked in groups. Perhaps they could if it were not for anaerobic glycolysis, the greater equalizer.

Anaerobic glycolysis is a process in which energy is produced, without oxygen, through the breakdown of muscle glycogen into lactic acid and adenosine triphosphate (ATP); the energy provider. The amount of energy that can be produced anaerobically is a function of the amount of glycogen present in all vertebrates about 0.5 percent of their muscles' wet weight. Thus, the anaerobic energy reserves of a vertebrate are proportional to the size of the animal. If, for example, some predators had attacked a 100 ton dinosaur, normally torpid, the dinosaur would have been able to generate almost instantaneously, via anaerobic glycolysis, the energy of 3,000 humans at maximum oxidative metabolic energy production. This explains how many large species have managed to compete with their more active neighbours : the compensation for a low oxidative metabolic rate is glycolysis.

There are limitations, however, to this compensation: The glycogen reserves of any animal are good, at most, for only about two minutes at maximum effort, after which only the normal oxidative metabolic source of

energy remains. With the conclusion of a burst of activity, the lactic acid level, is high in the body fluids, leaving the large animal vulnerable to attack until the acid is reconverted, via oxidative metabolism, by the liver into glucose, which is then sent (in part) back to the muscles for glycogen resynthesis. During this process the enormous energy debt that the animal has run up through anaerobic glycolysis must be repaid, a debt that is proportionally much greater for the larger vertebrates than for smaller ones. Whereas the tiny shrew can replace in minutes the glycogen used for maximum effort, for example, the gigantic dinosaur would have required more than three weeks. It might seem that this interminably long recovery time in a large vertebrate would prove a grave disadvantage for survival. Fortunately, muscle glycogen is used only when needed and even then only in whatever quantity is necessary. Only in times of panic or during mortal combat would the entire reserves be consumed.

168. The primary purpose of the passage is to
- (a) refute a misconception about anaerobic glycolysis.
 - (b) describe the limitations of anaerobic glycolysis.
 - (c) analyze the chemistry of anaerobic glycolysis and its similarity to oxidative metabolism.
 - (d) explain anaerobic glycolysis and its effects on animal survival.
 - (e) explain that high metabolic rate is crucial for survival.
169. According to the author, glycogen is crucial to the process of anaerobic glycolysis because glycogen
- (a) increases the organism's need for ATP.
 - (b) is an inhibitor of the oxidative metabolic production of ATP.
 - (c) ensures that the synthesis of ATP will occur speedily.
 - (d) is the material from which ATP is derived.
 - (e) compensation for a low oxidative metabolic rate.
170. According to the author, a major limitation of anaerobic glycolysis is that it can
- (a) produce in large animals more lactic acid than the liver can safely reconvert.
 - (b) necessitate a dangerously long recovery period in large animals.
 - (c) produce energy more slowly than it can be used by large animals.
 - (d) consume all of the available glycogen regardless of need.
 - (e) hardly match benefits of oxidative metabolism.
171. The passage suggests that the total anaerobic energy reserves of a vertebrate are proportional to the vertebrate's size because:
- (a) larger vertebrates conserve more energy than smaller vertebrates.
 - (b) larger vertebrates use less oxygen per unit weight than smaller vertebrates.
 - (c) the amount of muscle tissue in a vertebrate is directly related to its size.
 - (d) the size of a vertebrate is proportional to the quantity of energy it can utilize.
 - (e) larger vertebrates need more time to compensate for energy debt.

172. The author suggests that, on the basis of energy production, a 100-ton dinosaur would have been markedly vulnerable to which of the following?
- I Repeated attacks by, a single smaller, more active adversary.
II. Sustained attack by numerous smaller, more active adversaries.
III. An attack by an individual adversary of similar size.
- (a) II only (b) I and II only (c) II and III only (d) I, II and III (e) I and III only.
173. Which of the following best states the central idea of the passage?
- (a) The disadvantage of a low oxidative metabolic rate in large animals can be offset by their ability to convert substantial amounts of glycogen into energy.
(b) The most significant problem facing animals that have used anaerobic glycolysis for energy is the resynthesis of its by-product, glucose, into glycogen.
(c) The major factor ensuring that a large animal will triumph over a smaller animal is the large animal's ability to produce energy via anaerobic glycolysis.
(d) The great differences that exist in metabolic rates between species of small animals and species of large animals can have important effects on the patterns of their activities.
(e) The smaller animals are invariably more active than the larger ones.
174. A chord in the form of a square encloses an area of 10 cms^2 . If the same chord is now bent into form of a circle, the area of the circle is (cms^2):
- (a) 40π (b) $40/\pi$ (c) 80π (d) $80/\pi$ (e) None of these
175. The points (3, 7) and (-5, -1) are joined by a straight line. Another point on this line is:
- (a) (0, 5) (b) (1, 3) (c) (2, 4) (d) (-1, 3) (e) None of these
176. The base of a parallelogram is 50 cms and its adjacent side is 35 cms. The length of the perpendicular to the base from its opposite side is 20 cms. The area of the parallelogram is:
- (a) 1750 cms^2 (b) 2000 cms^2 (c) 1000 cms^2 (d) 500 cms^2 (e) None of these
177. P, Q, R are three points on a straight line. The locus of the points of contact of tangents from P to the circles passing through Q and R is:
- (a) a straight line perpendicular to QR (b) circle with center Q
(c) circle with center P (d) circle with center R
(e) None of these
178. The LCM of two numbers is 25 times their HCF. The sum of their HCF and LCM is 1040. If one of the numbers is 320, then the other number is:
- (a) 125 (b) 325 (c) 250 (d) 420 (e) None of these

- 179 The greatest number which will divide 133, 176, and 219 leaving the same remainder in each case is:
(a) 43 (b) 21.5 (c) 86 (d) 42 (e) None of these

Direction for questions 180 – 181: In each of the questions below, sentence are given which are denoted by (A), (B), (C), (D) and (E). By using all the five sentences, you have to frame a meaningful paragraph. The correct order of the sentences and mark it as your answer.

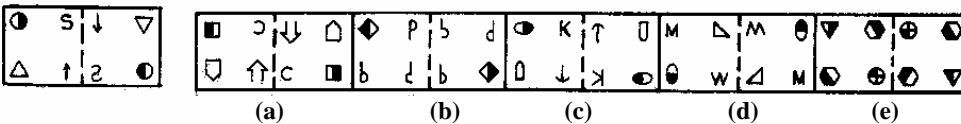
180. (A) And yet, in recent years, a gentle breeze has been wafting towards us from Japan, suggesting that 50 million Frenchmen could not be wrong.
(B) The French connection between cuisine and culture is well-known and Voltaire was convinced that "thought depends absolutely on the stomach".
(C) Two of Japan's revered philosophical masters, Okada Torajiro and Kaneku Shoseki, Have also extolled the superiority of the belly region, over the much vaunted place of the brain, the chest, the heart and the yoga's spine.
(D) Not all might subscribe to the French Intellectual's determinism, in expounding the philosophy of digestion or his digest of philosophy.
(E) He, however, regretted that "in spite of that, those with the best stomachs are not always best thinkers".

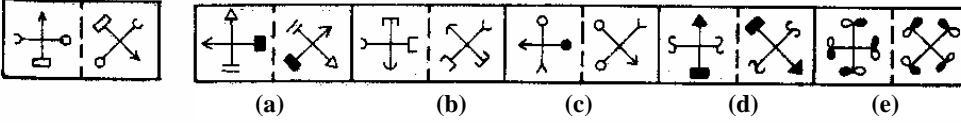
- (a) ABDCE (b) BEDAC (c) CDEAB (d) BEDCA (e) EBACD

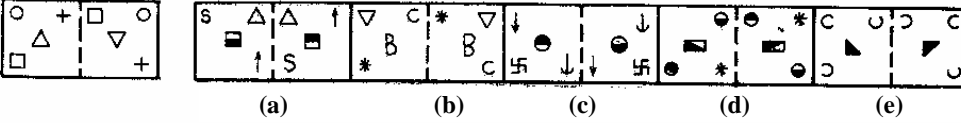
181. (A) The work of magic is this, that it breathes and at every breath transforms realities.
(B) Such a magician is latent within you.
(C) At one time it shows a man in the guise of an ass, at another time it makes an ass look like a man.
(D) Magic means to make a straw a mountain by artifice.
(E) It makes ugly things beautiful by means of sleight, it makes beautiful things ugly by means of opinion.

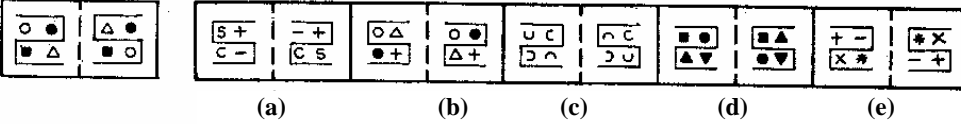
- (a) BAEDC (b) DEBCA (c) DEACB (d) ADCEB (e) EDCAB

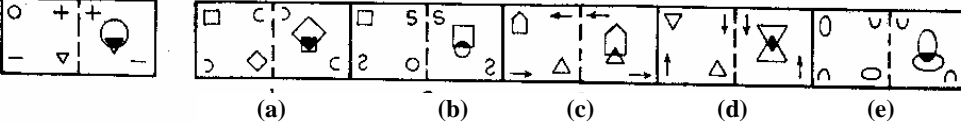
Direction for questions 182 – 186: In each of the following questions, a related pair of figures (unnumbered) is followed by five-numbered pairs of figures. Out of these five, four have relationship similar to that in the original pair. Only one pair of figures does not have similar relationship. Select that pair of figures which does not have a similar relationship to that in the unnumbered pair. The number below that figure is your answer.

182. 

183. 

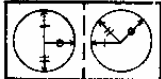
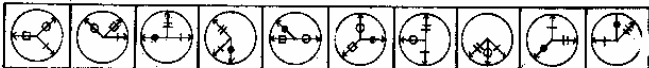
184. 



185. 

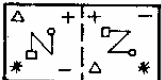
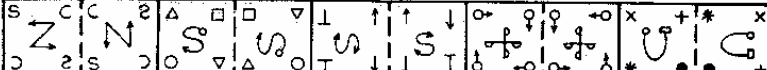
186. 

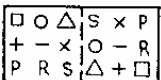
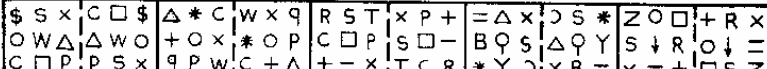
187. The value of $\log 75/16 - 2 \log 5/9 + \log 32/243$ is:
 (a) $\log 17$ (b) $\log 2$ (c) $\log 455/433$ (d) $\log 36/35$ (e) None of these
188. If X is real, then the value of $X^2 - 8X + 22$ cannot be less than:
 (a) 6 (b) 4 (c) -9 (d) 0 (e) None of these
189. How many lead balls of radius $\frac{1}{2}$ cm can be made out of a solid lead sphere of diameter 16 cms?
 (a) < 4000 (b) $> 3000, < 4000$ (c) about 8000 (d) about 4000 (e) None of these
190. The radius and the height of a cone are both increased by 20%. The volume of the cone is increased by:
 (a) 172.8% (b) 272.8% (c) 72.8% (d) 100% (e) None of these
191. A man plants his orchard with 120409 trees and arranges them so that there are as many trees in a row as there are rows. The number of rows are:
 (a) 447 (b) 227 (c) 437 (d) 347 (e) None of these
192. Which of the following is rational: $\sqrt{(0.01)}$, $\sqrt{(0.1)}$, $\sqrt{(0.001)}$, $\sqrt{(0.9)}$?
 (a) $\sqrt{(0.01)}$ (b) $\sqrt{(0.1)}$ (c) $\sqrt{(0.001)}$ (d) $\sqrt{(0.9)}$ (e) None of these

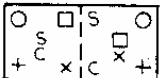
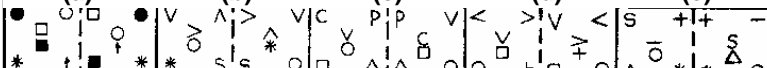
Direction for questions 193 – 197: In each of the following questions, a related pair of figures (unnumbered) is followed by five-numbered pairs of figures. Out of these five, four have relationship similar to that in the original pair. Only one pair of figures does not have similar relationship. Select that pair of figures which does not have a similar relationship to that in the unnumbered pair. The number below that figure is your answer.

193.  

194.  

195.  

196.  

197.  

Direction for questions 198 – 199: In each question below are given two statements followed by several conclusions. You have to take the two given statements to be true, even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.

198. **Statement:** (I) Some typists are programmers (II) No programmer is system-analysts
Conclusion: (1) Some typists are system-analysts (II) All programmers are typists
 (III) No programmer is typist (IV) Some systems-analysts are typists
 (1) Only (I) & (III) follow. (2) Only (I) & (IV) follow
 (3) Only (III) & (IV) follow (4) Only (I), (III) & (IV) follow (5) None follows
199. **Statements:** (I) Some workers are effective (II) Sham is effective
Conclusions: (1) Sham is a worker (II) Sham is not a worker
 (III) No effective is a worker (IV) Some effectives are workers
 (1) Either (I) or (II) follows (2) Only (IV) follows
 (3) Either (I) or (II) and (IV) follow (4) None follows
 (5) Either (I) or (II) and (III) follow

200. A water tap at the bottom of the tank empties it in x hours and a water tap fills a tank in y hours. If $x > y$ and when both the taps are open, the tank is filled in z hours. Then

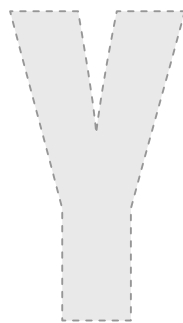
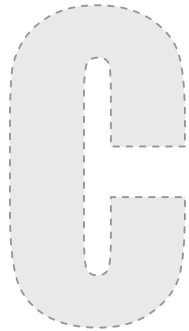
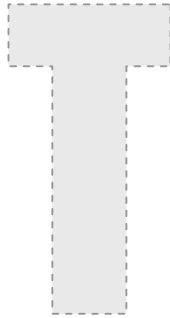
(a) $z = x + y$

(b) $z = \frac{xy}{x + y}$

(c) $z = x - y$

(d) $z = \frac{xy}{x - y}$

(e) None of these



MOCK CET MAHARASHTRA

ANSWERS

- | | | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|----------|
| 1. (d) | 2. (b) | 3. (d) | 4. (a) | 5. (c) | 6. (c) | 7. (b) | 8. (a) |
| 9. (d) | 10. (e) | 11. (c) | 12. (a) | 13. (b) | 14. (d) | 15. (e) | 16. (d) |
| 17. (d) | 18. (d) | 19. (a) | 20. (a) | 21. (a) | 22. (b) | 23. (a) | 24. (b) |
| 25. (d) | 26. (a) | 27. (b) | 28. (d) | 29. (b) | 30. (c) | 31. (a) | 32. (b) |
| 33. (d) | 34. (b) | 35. (d) | 36. (c) | 37. (a) | 38. (a) | 39. (b) | 40. (c) |
| 41. (b) | 42. (b) | 43. (e) | 44. (d) | 45. (b) | 46. (d) | 47. (d) | 48. (b) |
| 49. (a) | 50. (d) | 51. (a) | 52. (a) | 53. (c) | 54. (d) | 55. (c) | 56. (b) |
| 57. (a) | 58. (c) | 59. (e) | 60. (d) | 61. (d) | 62. (a) | 63. (e) | 64. (e) |
| 65. (b) | 66. (b) | 67. (d) | 68. (c) | 69. (b) | 70. (b) | 71. (e) | 72. (b) |
| 73. (c) | 74. (c) | 75. (c) | 76. (a) | 77. (d) | 78. (b) | 79. (d) | 80. (a) |
| 81. (b) | 82. (d) | 83. (a) | 84. (d) | 85. (c) | 86. (d) | 87. (b) | 88. (d) |
| 89. (c) | 90. (d) | 91. (b) | 92. (c) | 93. (d) | 94. (c) | 95. (c) | 96. (b) |
| 97. (c) | 98. (c) | 99. (d) | 100. (b) | 101. (a) | 102. (d) | 103. (c) | 104. (b) |
| 105. (c) | 106. (a) | 107. (d) | 108. (c) | 109. (b) | 110. (d) | 111. (c) | 112. (b) |
| 113. (d) | 114. (e) | 115. (a) | 116. (c) | 117. (e) | 118. (a) | 119. (b) | 120. (d) |
| 121. (e) | 122. (b) | 123. (e) | 124. (b) | 125. (b) | 126. (c) | 127. (c) | 128. (c) |
| 129. (c) | 130. (a) | 131. (b) | 132. (d) | 133. (e) | 134. (a) | 135. (c) | 136. (c) |
| 137. (d) | 138. (d) | 139. (b) | 140. (c) | 141. (c) | 142. (b) | 143. (a) | 144. (c) |
| 145. (e) | 146. (c) | 147. (a) | 148. (b) | 149. (e) | 150. (d) | 151. (b) | 152. (e) |
| 153. (c) | 154. (d) | 155. (a) | 156. (b) | 157. (b) | 158. (e) | 159. (b) | 160. (d) |
| 161. (d) | 162. (b) | 163. (a) | 164. (d) | 165. (c) | 166. (c) | 167. (a) | 168. (d) |
| 169. (d) | 170. (b) | 171. (c) | 172. (a) | 173. (d) | 174. (b) | 175. (d) | 176. (c) |
| 177. (c) | 178. (a) | 179. (a) | 180. (b) | 181. (c) | 182. (b) | 183. (c) | 184. (d) |
| 185. (e) | 186. (a) | 187. (b) | 188. (a) | 189. (d) | 190. (c) | 191. (d) | 192. (a) |
| 193. (d) | 194. (c) | 195. (e) | 196. (a) | 197. (b) | 198. (e) | 199. (c) | 200. (d) |