GUMA301

Common for Diploma/UG Programs

## V Semester Examination, Dec'25 – Jan'26

Logical Reasoning

Choice Based Credit System (CBCS)

Time: 3 Hrs.

Maximum Marks: 60
Minimum Pass Marks: 24

Note: (1) *All questions are compulsory and carry equal marks.*
(2) *Attempt parts A, B or C, D from each set of questions.*

**Q.1(A)** **i)** Which of the following diagrams indicates the best relation between Travelers, Train and Bus?

a) b) c) d)
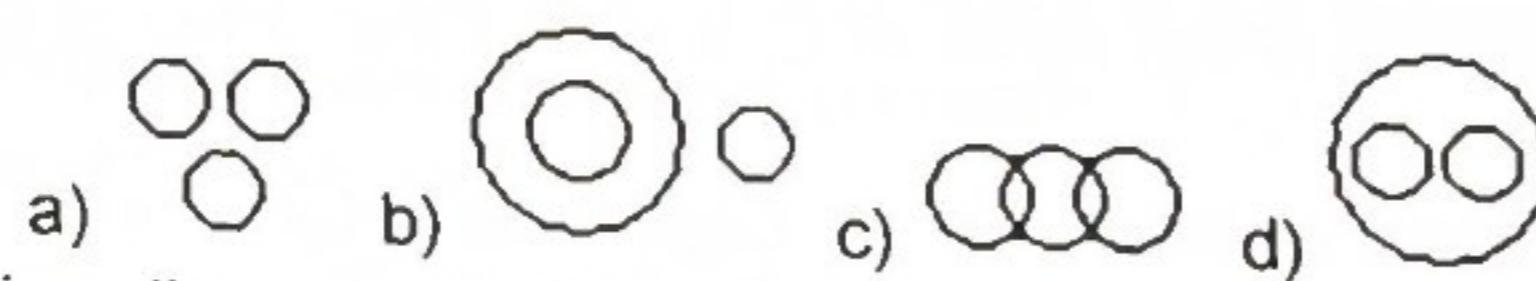
**ii)** Which of the following diagrams indicates the best relation between Profit, Dividend and Bonus ?

a) b) c) d)
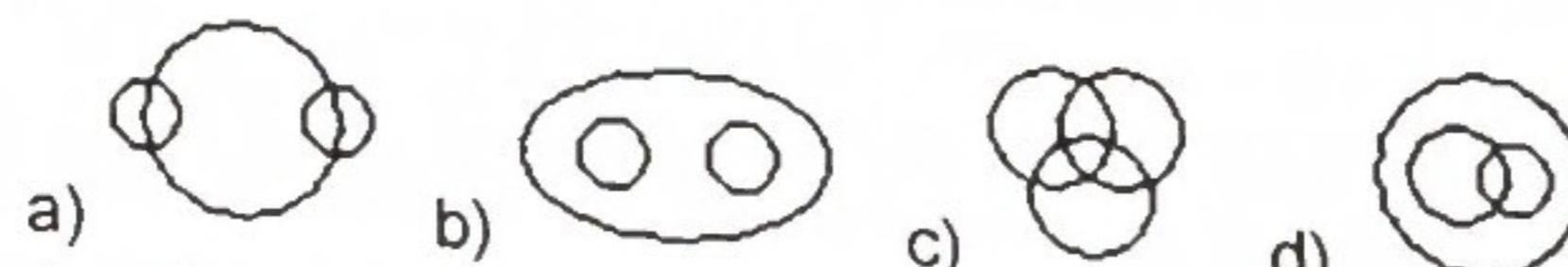
iii) Which of the following diagrams indicates the best relation between Women, Mothers and Engineers ?

a) b) c) d)
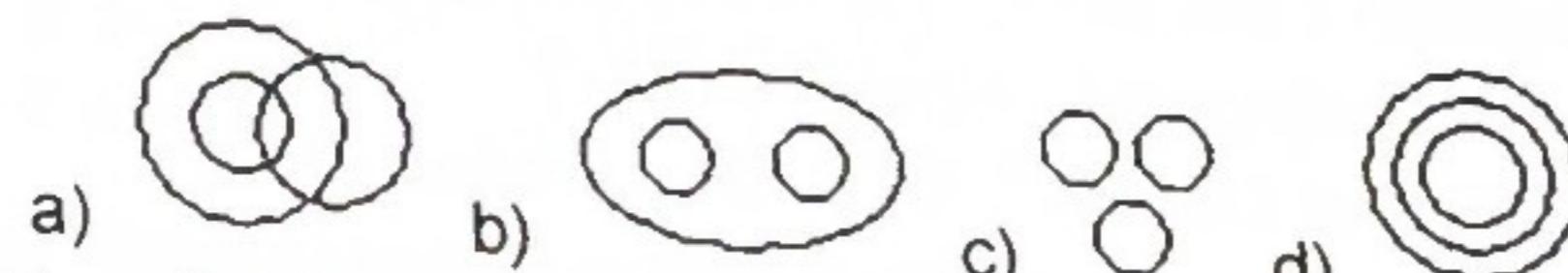
iv) Which of the following diagrams indicates the best relation between Factory, Product and Machinery ?

a) b) c) d)
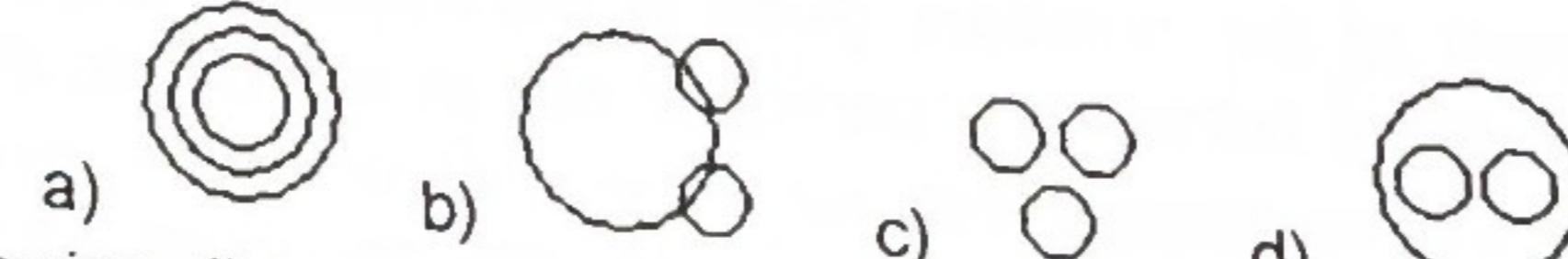
v) Which of the following diagrams indicates the best relation between Author, Lawyer and Singer ?

a) b) c) d)
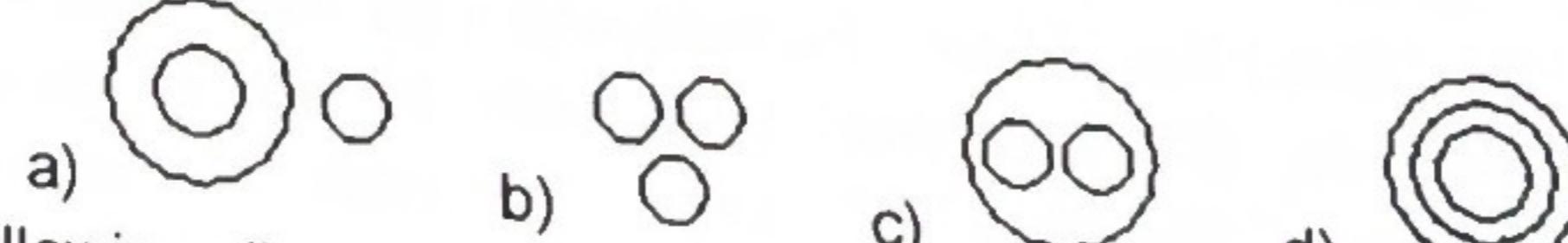
vi) Which of the following diagrams indicates the best relation between Judge, Thieves and Criminals ?

a) b) c) d)
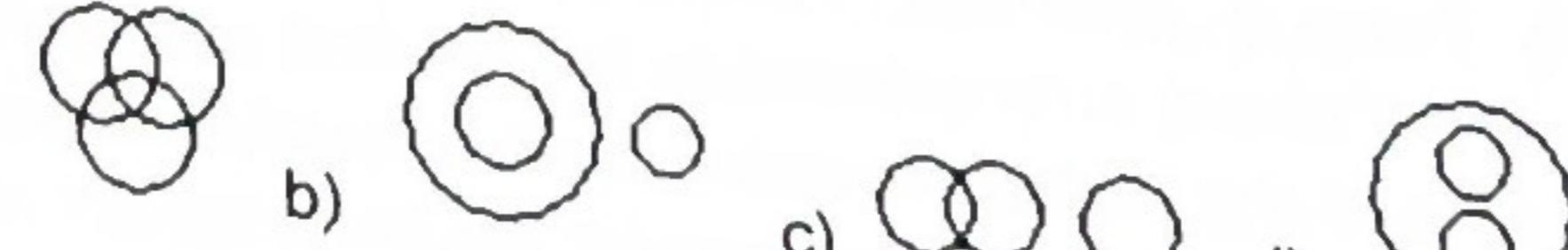
(B) Directions to Solve:

In each of the following questions two statements are given and these statements are followed by two conclusions numbered (1) and (2). You have to take the given two statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts.

Give answer:

- (a) If only (1) conclusion follows
- (b) If only (2) conclusion follows
- (c) If either (1) or (2) follows
- (d) If neither (1) nor (2) follows and
- (e) If both (1) and (2) follow.

06

i) **Statements:** Some actors are singers. All the singers are dancers.
Conclusions:
1. Some actors are dancers.   2. No singer is actor.

ii) **Statements:** All the harmoniums are instruments. All the instruments are flutes.
Conclusions:
1. All the flutes are instruments.   2. All the harmoniums are flutes.

iii) **Statements:** Some mangoes are yellow. Some tixo are mangoes.
Conclusions:
1. Some mangoes are green.   2. Tixo is a yellow.

<div align="right">06</div>

OR

(C)   (i) Pointing to a photograph of a boy Suresh said, "He is the son of the only son of my mother." How is Suresh related to that boy?
a) Brother b) Uncle   c) Cousin   d) Father

(ii) If A + B means A is the mother of B; A - B means A is the brother B; A % B means A is the father of B and A x B means A is the sister of B, which of the following shows that P is the maternal uncle of Q?
a) Q - N + M x P   b) P + S x N – Q   c) P - M + N x Q d) Q - S % P

(iii) If A is the brother of B; B is the sister of C; and C is the father of D, how D is related to A?
a) Brother   b) Sister c) Nephew d) Cannot be determined

(iv) If A + B means A is the brother of B; A - B means A is the sister of B and A x B means A is the father of B. Which of the following means that C is the son of M?
a) M - N x C + F b) F - C + N x M   c) N + M - F x C d) M x N - C + F

(v) Introducing a boy, a girl said, "He is the son of the daughter of the father of my uncle." How is the boy related to the girl?
a) Brother   b) Nephew   c) Uncle   d) Son-in-law

(vi) Pointing to a photograph Lata says, "He is the son of the only son of my grandfather." How is the man in the photograph related to Lata?
a) Brother   b) Uncle   c) Cousin   d) Data is inadequate

<div align="right">06</div>

(D)   **Directions:** The following information is given in the question, please read it carefully and answer the questions below:

A word and an arrangement of the numbers given in the machine when given an input of numbers/words rearranges them following a particular rule in each step. The following is an illustration of input and steps of rearrangement.

a)**Input: 28 97 Craft Machine Urge Furious 49 38 70 Wait 16 Bother Parent**
Step I: Bother 28 97 Craft Machine Urge Furious 49 38 70 Wait Parent 16
Step II: Bother Craft 97 Machine Urge Furious 49 38 70 Wait Parent 28 16
Step III: Bother Craft Furious 97 Machine Urge 49 70 Wait Parent 38 28 16
Step IV: Bother Craft Furious Machine 97 Urge 70 Wait Parent 49 38 28 16
Step V: Bother Craft Furious Machine Parent 97 Urge Wait 70 49 38 28 16
Step VI: Bother Craft Furious Machine Parent Urge Wait 97 70 49 38 28 16

Step VI is the final step of the above arrangement as the resulted arrangement is obtained. On the basis of the sequence and the logic followed in each step of the above Input, find out in each of the following questions the appropriate steps for the given input.

i) **Input: Tank 15 35 Sweet 39 26 Ignite Brush Assumption Kite 49 80 60**
What is the position of '49' in Step III?
a) Seventh from the right end   b) Fifth from the left end
c) Sixth from the left end   d) Sixth from the right end
e) Seventh from the left end

ii) **Input: Tank 15 35 Sweet 39 26 Ignite Brush Assumption Kite 49 80 60**
Step I: Assumption Tank 35 Sweet 39 26 Ignite Brush Kite 49 80 60 15
Step II: Assumption Brush Tank 35 Sweet 39 Ignite Kite 49 80 60 26 15
Step III: Assumption Brush Ignite Tank Sweet 39 Kite 49 80 60 35 26 15
Step IV: Assumption Brush Ignite Kite Tank Sweet 49 80 60 39 35 26 15
Step V: Assumption Brush Ignite Kite Sweet Tank 80 60 49 39 35 26 15
Which of the following is the fifth element from the left end in step V?
a) 49   b) Kite   c) Sweet   d) 80   e) None of these

<div align="right">*Contd.....*</div>

iii) In the above question Which of the following would be step III after arrangement?

b) Assumption Brush Ignite Tank Sweet 39 Kite 49 80 15 60 35 26.

c) Assumption Brush Kite Ignite Tank Sweet 49 26 39 80 60 35 15

a) Assumption Brush Kite Ignite Tank Sweet 49 39 80 60 35 26 15

d) Assumption Brush Kite Ignite Tank Sweet 39 49 80 60 35 26 15

e) Assumption Brush Ignite Tank Sweet 39 Kite 49 80 60 35 26 15

06

Q.2(A) (i) A, P, R, X, S and Z are sitting in a row. S and Z are in the centre. A and P are at the ends. R is sitting to the left of A. Who is to the right of P?

    a) A   b) X   c) S   d) Z

(ii) There are 8 houses in a line and in each house only one boy lives with the conditions as given below:

1. Jack is not the neighbour Siman.
2. Harry is just next to the left of Larry.
3. There is at least one to the left of Larry.
4. Paul lives in one of the two houses in the middle.
5. Mike lives in between Paul and Larry.

If at least one lives to the right of Robert and Harry is not between Taud and Larry, then which one of the following statement is not correct?

    a) Robert is not at the left end.
    b) Robert is in between Simon and Taud.
    c) Taud is in between Paul and Jack.
    d) There are three persons to the right of Paul.

(iii) A, B, C, D and E are sitting on a bench. A is sitting next to B, C is sitting next to D, D is not sitting with E who is on the left end of the bench. C is on the second position from the right. A is to the right of B and E. A and C are sitting together. In which position A is sitting?

    a) Between B and D   b) Between B and C
    c) Between E and D   d) Between C and E

06

(B) P, Q, R, S, T, U, V and W are sitting round the circle and are facing the centre:

1. P is second to the right of T who is the neighbor of R and V.
2. S is not the neighbor of P.
3. V is the neighbor of U.
4. Q is not between S and W. W is not between U and S.

(i) Which two of the following are not neighbors?
    a) RV   b) UV   c) RP   d) QW

(ii) Which one is immediate right to the V?
    a) P   b) U   c) R   d) T

(iii) What is the position of S?
    a) Between U and V   b) Second to the right of P
    C) To the immediate right of W   d) Data inadequate.

06

OR

(C) Five girls are sitting on a bench to be photographed. Seema is to the left of Rani and to the right of Bindu. Mary is to the right of Rani. Reeta is between Rani and Mary.

(i) Who is sitting immediate right to Reeta?
    a) Bindu b) Rani c) Mary d) Seema

(ii) Who is in the middle of the photograph?
    a) Bindu b) Rani c) Reeta d) Seema

(iii) Who is second from the right?
    a) Mary b) Rani c) Reeta d) Bindu

06

(D) Six friends are sitting in a circle and are facing the centre of the circle. Deepa is between Prakash and Pankaj. Priti is between Mukesh and Lalit. Prakash and Mukesh are opposite to each other.

(i) Who is sitting right to Prakash?
    a) Mukesh b) Deepa   c) Pankaj d)Lalit

(ii) Who is just right to Pankaj?
    a) Deepa   b) Lalit •   c) Prakash d) Priti

(iii) Who are the neighbours of Mukesh?

    a) Prakash and Deepa   b) Deepa and Priti

    c) Priti and Pankaj   d) Lalit and Priti

Q.3(A) **Directions to Solve:**

In each question below is given a statement followed by two assumptions numbered I and II. You have to consider the statement and the following assumptions and decide which of the assumptions is implicit in the statement.

Give answer

- (a) If only assumption I is implicit
- (b) If only assumption II is implicit
- (c) If either I or II is implicit
- (d) If neither I nor II is implicit
- (e) If both I and II are implicit.

(i) **Statement:** "You are hereby appointed as a programmer with a probation period of one year and your performance will be reviewed at the end of the period for confirmation." - A line in an appointment letter.

Assumptions:

1. The performance of an individual generally is not known at the time of appointment offer.
2. Generally an individual tries to prove his worth in the probation period.

(ii) Statement: It is desirable to put the child in school at the age of 5 or so.

Assumptions:

1. At that age the child reaches appropriate level of development and is ready to learn.
2. The schools do not admit children after six years of age.

(iii) Statement: "In order to bring punctuality in our office, we must provide conveyance allowance to our employees." - In charge of a company tells Personnel Manager.

Assumptions:

1. Conveyance allowance will not help in bringing punctuality.
2. Discipline and reward should always go hand in hand.

(B) **(i)** **Statement:** Many historians have done more harm than good by distorting truth.

Assumptions:

1. People believe what is reported by the historians.
2. Historians are seldom expected to depict the truth.

    a) Only assumption I is implicit   b) Only assumption II is implicit

    c) Either I or II is implicit   d) Neither I nor II is implicit

    e) Both I and II are implicit

(ii) **Statement:** "As there is a great demand, every person seeking tickets of the programme will be given only five tickets."

Assumptions:

1. The organizers are not keen on selling the tickets.
2. No one is interested in getting more than five tickets.

    a) Only assumption I is implicit   b) Only assumption II is implicit

    c) Either I or II is implicit   d) Neither I nor II is implicit

    e) Both I and II are implicit

(iii) Statement: "Computer education should start at schools itself."

Assumptions:

1. Learning computers is easy.
2. Computer education fetches jobs easily.

    a) Only assumption I is implicit   b) Only assumption II is implicit

    c) Either I or II is implicit   d) Neither I nor II is implicit

    e) Both I and II are implicit

OR

(C) **Directions to Solve:**

In each question below is given a statement followed by two conclusions numbered I and II. You have to assume everything in the statement to be true, then consider the two conclusions together and decide which of them logically follows beyond a reasonable doubt from the information given in the statement.

Give answer:

- (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 and
- (e) If both I and II follow.

(i) **Statements:** In a one day cricket match, the total runs made by a team were 200. Out of these 160 runs were made by spinners.

Conclusions:
1. 80% of the team consists of spinners.
2. The opening batsmen were spinners.

(ii) **Statements:** The old order changed yielding place to new.

Conclusions:
1. Change is the law of nature.
2. Discard old ideas because they are old.

(iii) **Statements:** Government has spoiled many top-ranking financial institutions by appointing bureaucrats as Directors of these institutions.

Conclusions:
1. Government should appoint Directors of the financial institutes taking into consideration the expertise of the person in the area of finance.
2. The Director of the financial institute should have expertise commensurate with the financial work carried out by the institute.

06

(D) **Directions to Solve:**

In each of the following questions, a statement/group of statements is given followed by some conclusions. Without resolving anything yourself choose the conclusion which logically follows from the given statements).

(i) Soldiers serve their country.
 a) Men generally serve their country.
 b) Those who serve their country are soldiers.
 c) Some men who are soldiers serve their country.
 d) Women do not serve their country because they are not soldiers.

(ii) A factory worker has five children. No one else in the factory has five children.
 a) All workers in the factory have five children each.
 b) Everybody in the factory has children.
 c) Some of the factory workers have more than five children.
 d) Only one worker in the factory has exactly five children.

(iii) Television convinces viewers that the likelihood of their becoming the victim of a violent crime is extremely high; at the same time by its very nature, TV persuades viewers to passively accept whatever happens to them.
 a) TV viewing promotes criminal behaviour.
 b) TV viewers are most likely to be victimized than others.
 c) People should not watch TV.
 d) TV promotes a feeling of helpless vulnerability in viewers.

06

Q.4(A)   Directions to Solve:

The sheet of paper shown in the figure (X) given on the left hand side, in each problem, is folded to form a box. Choose from amongst the alternatives (1), (2), (3) and (4), the boxes that are similar to the box that will be formed.

**(i)** Choose the box that is similar to the box formed from the given sheet of paper (X).

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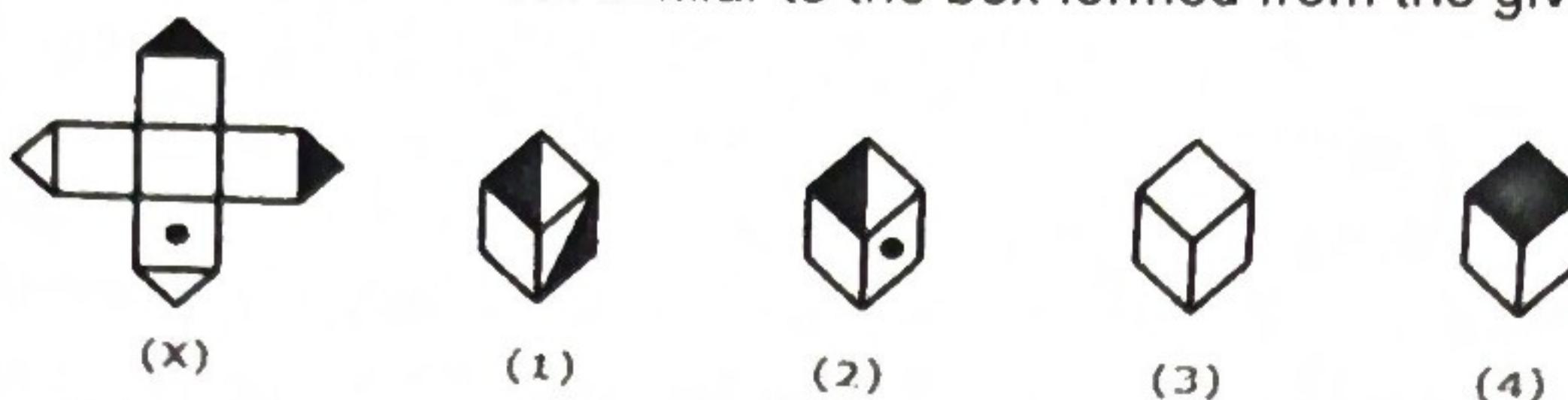
a) 1 and 2 only   b) 2 and 4 only   c) 2 and 3 only   d) 1 and 4 only

(ii) Choose the box that is similar to the box formed from the given sheet of paper (X).

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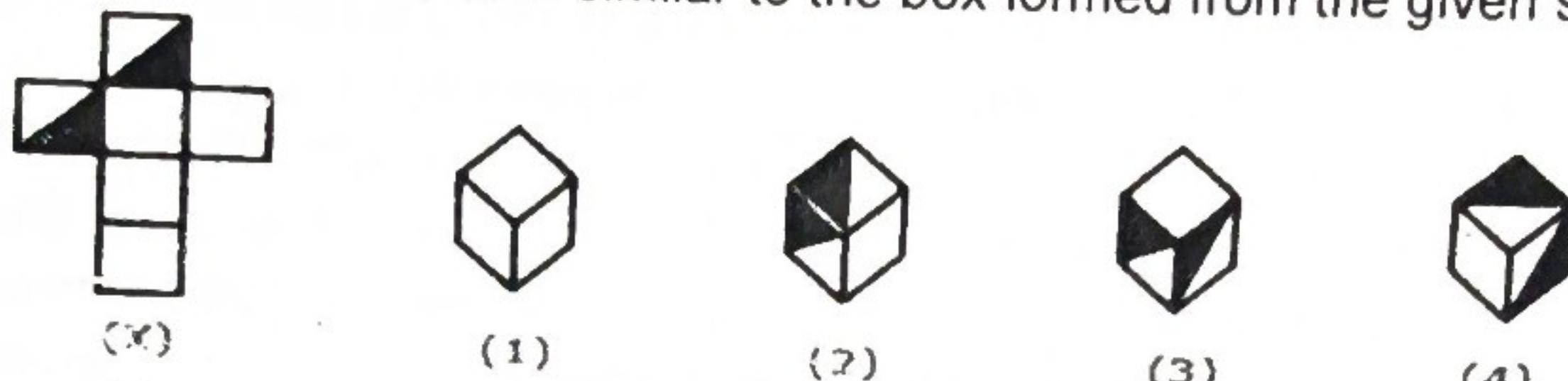
a) 1 and 4 only   b) 3 and 4 only   c) 1 and 2 only   d) 2 and 3 only

(iii) How many dots lie opposite to the face having three dots, when the given   figure is folded to form a cube?
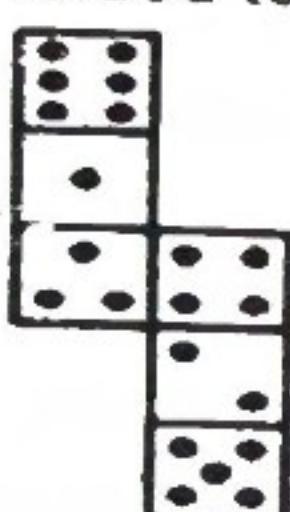
a) 2   b) 4   c) 5   d)6

(iv) Directions to Solve:

In each of the following questions, five words have been given out of which four are alike in some manner, while the fifth one is different.
Choose the word which is different from the rest.

   a) Chicken   b) Snake   c) Swan   d) Crocodile   e) Frog

(v) Choose the word which is different from the rest.

   a) Cap   b) Turban   c) Helmet   d) Veil   e) Hat

(vi) Choose the word which is different from the rest.

   a) Rigveda   b) Yajurveda   c) Atharvaveda   d) Ayurveda   e)Samveda

(B)   **(i)**   The sum of ages of 5 children born at the intervals of 3 years each is   50 years. What is the age of the youngest child?

   a) 4 years   b) 8 years   c) 10 years   d) None of these

(ii) A father said to his son. "I was as old as you are at the present at the time of your birth". If the father's age is 38 years now, the son's age five years back was:

   a) 14 years   b) 19 years   c) 33 years   d) 38 years

(iii) A is two years older than B who is twice as old as C. If the total of the ages of A, B and C be 27, then how old is B?

   a) 7   b) 8   c) 9   d) 10   e) 11

OR

(C)   Directions to Solve:

In each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and
Give answer

- (a) If the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question
- (b) If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question
- (c) If the data either in statement I alone or in statement II alone are sufficient to answer the question
- (d) If the data given in both statements I and II together are not sufficient to answer the question and
- (e) If the data in both statements I and II together are necessary to answer the question.   *Contd......*

(i) **In which year was Rahul born?**

Statements:
I. Rahul at present is 25 years younger to his mother.
II. Rahul's brother, who was born in 1964, is 35 years younger to his mother.

(ii) **What will be the total weight of 10 poles, each of the same weight?**

Statements:
I. One-fourth of the weight of each pole is 5 kg.
II. The total weight of three poles is 20 kilograms more than the total weight of two poles.

(iii) **How many children does M have?**

Statements:
I. H is the only daughter of X who is wife of M.
II. K and J are brothers of M.   *06*

(D) **Directions to Solve:**

Each of the questions given below consists of a statement and / or a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statement(s) is / are sufficient to answer the given question. Read the both statements and

- Give answer (a) if the data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient to answer the question.
- Give answer (b) if the data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.
- Give answer (c) if the data either in Statement I or in Statement II alone are sufficient to answer the question.
- Give answer (d) if the data even in both Statements I and II together are not sufficient to answer the question.
- Give answer(e) if the data in both Statements I and II together are necessary to answer the question.

a) What is Sonia's present age?

I. Sonia's present age is five times Deepak's present age.

II.Five years ago, her age was twenty-five times Deepak's age at that time.

b) Average age of employees working in a department is 30 years. In the next year, ten workers will retire. What will be the average age in the next year?
   I.   Retirement age is 60 years.
   II.   There are 50 employees in the department.

c) Divya is twice as old as Shruti. What is the difference in their ages?
   I.   Five years hence, the ratio of their ages would be 9 : 5.
   II.   Ten years back, the ratio of their ages was 3 : 1.   *06*

Q.5(A) **Directions to Solve:**

In each of the following questions you are given a combination of alphabets and/or numbers followed by four alternatives (1), (2), (3) and (4). Choose the alternative which is closely resembles the mirror image of the given combination.

(i) Choose the alternative which is closely resembles the mirror image of the given combination.

ANS43Q12

(1) 2IQ٤٤Eٹ١ S   (2) SIQ٤٤SИА·
(3) SИА٤٤QS١   (4) ١SQ٤٤SИ٤

a) 1   b) 2   c) 3   d) 4

(ii) Choose the alternative which is closely resembles the mirror image of the given combination.

TARAIN1014A

(1) A٤ΓΟΓИІАЯАΤ   (2) AΓΟΓ٤ИІАЯАT
(3) AΓΟΓ٤TAЯAIИ   (4) A٤ΓΟΓИІАЯАΤ،

a) 1   b) 2   c) 3   d) 4

(iii) Choose the alternative which is closely resembles the mirror image of the given combination.

1965 INDOPAK

(1) ꓘAꟼOꓷИI2961   (2) ꟼAꓘIИꓷОᖤ982

(3) ꓘAꟼOꓷИI2891   (4) ꓘAꟼOꓷИI2891

a) 1   b) 2   c) 3   d) 4

(iv) Choose the alternative which is closely resembles the mirror image of the given combination.

MALAYALAM

(1) MALAYALAM   (2) MAJAYAJAM

(3) MАⅬАYАⅬАM   (4) MAⅬAYAⅬAM

a) 1   b) 2   c) 3   d) 4

(v) Choose the alternative which is closely resembles the mirror image of the given combination.

EFFECTIVE

(1) EⱯⱯECTIVE   (2) EVITCEFFE

(3) EⱯⱯECTIVE   (4) EVITCEFFE

a) 1   b) 2   c) 3   d) 4

(vi) Choose the alternative which is closely resembles the mirror image of the given combination.

UTZFY6KH

(1) HK9YꟻZTU   (2) ПTƧꟻ⅄9KH

(3) HK9⅄ꟻZTU   (4) HXꓭYꟻZTU

a) 1   b) 2   c) 3   d) 4   06

(B)   **Directions to Solve:**

In each of the following questions, choose the correct mirror images of the given image of the Fig.(X) from amongst the four alternatives (1), (2), (3) and (4) given along with it.

    (i) Choose the correct mirror image of the given figure (X) from amongst the four alternatives.
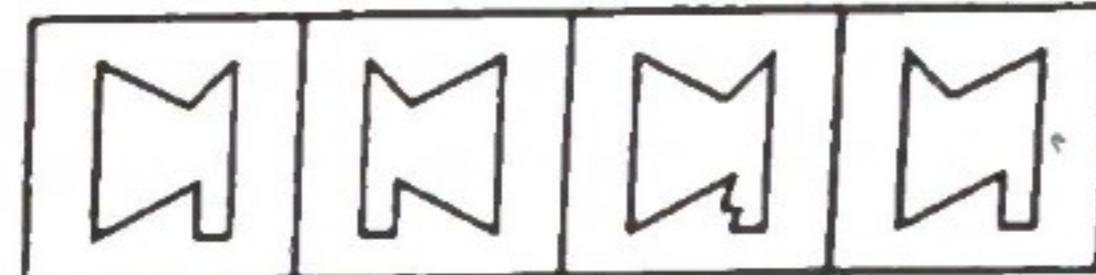
(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

    (ii) Choose the correct mirror image of the given figure (X) from amongst the four alternatives.
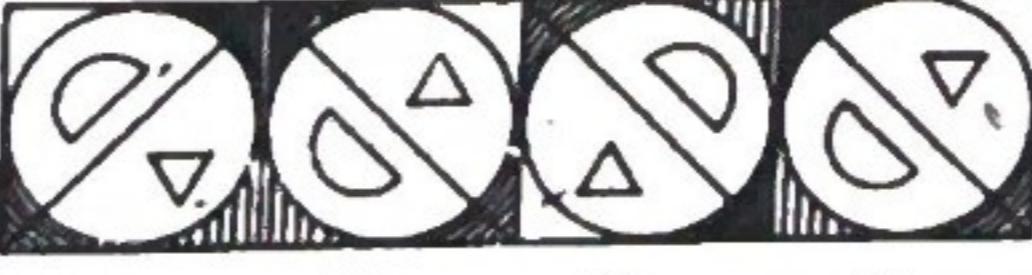
(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

(iii) Choose the correct mirror image of the given figure (X) from amongst the four alternatives.
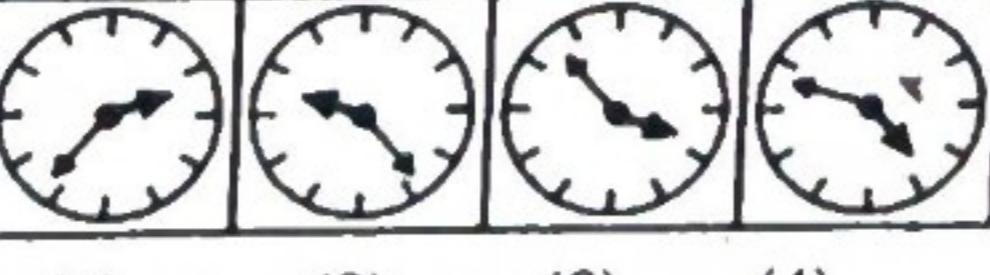
(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

(iv) Choose the correct mirror image of the given figure (X) from amongst the four alternatives.

(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

Countd....
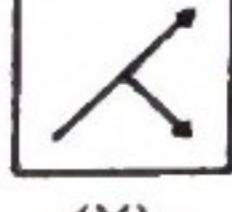
(v) If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?

Question Figure :
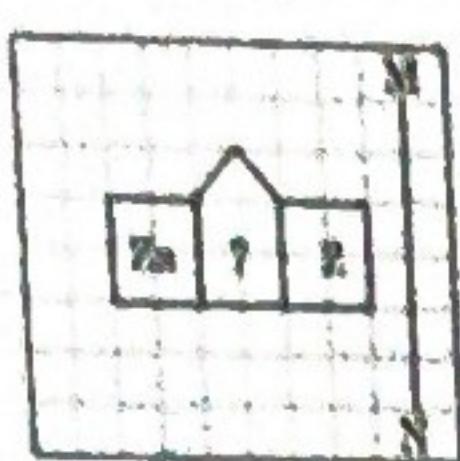
Answer Figures :
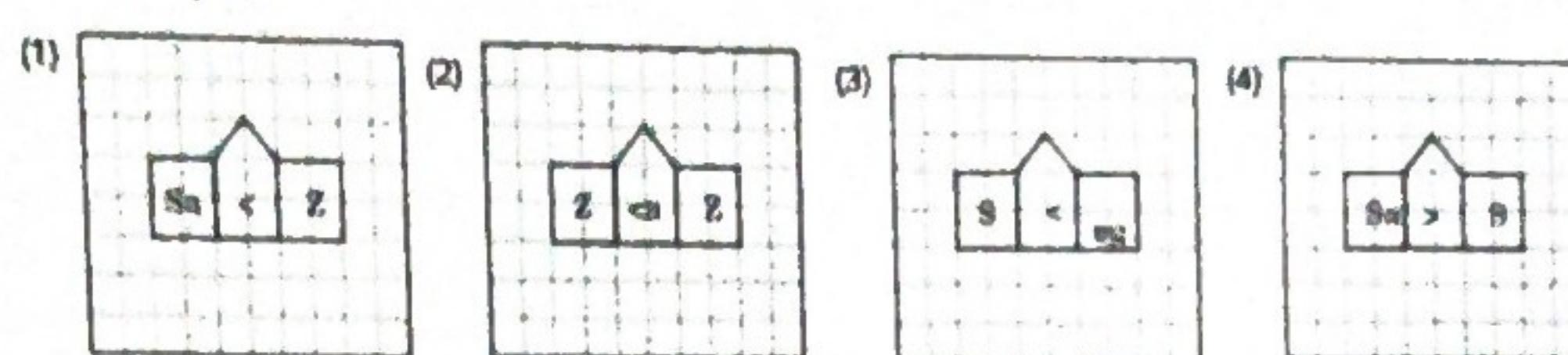
(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

(vi) If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?

Question Figure :

Answer Figures :

(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

06

OR
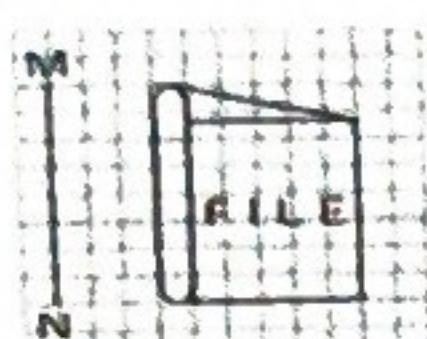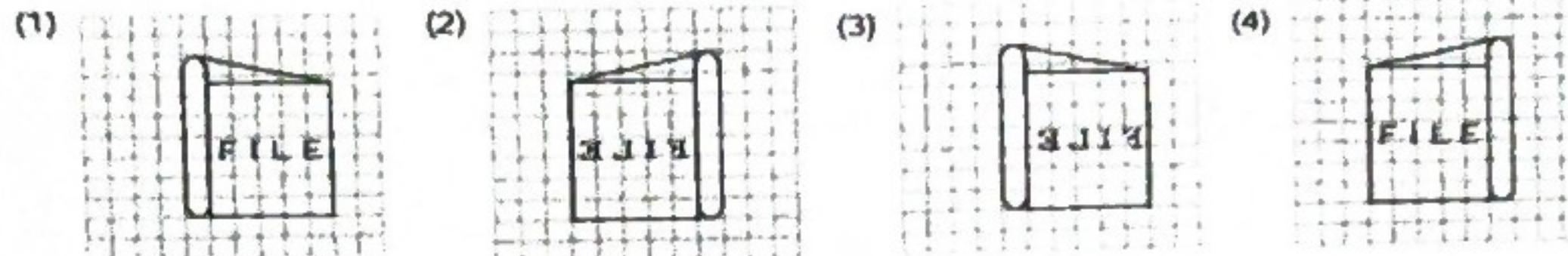
(C)   Directions to Solve:

In each of the following questions, select a figure from amongst the four alternatives, which when placed in the blank space of figure (X) would complete the pattern.

(i) Identify the figure that completes the pattern.

(X)   (1)   (2)   (3)   (4)
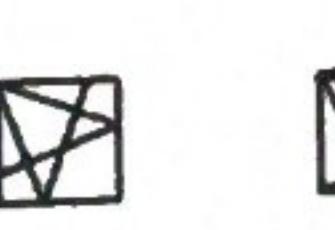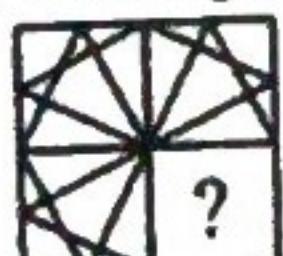
a) 1   b) 2   c) 3   d) 4

(ii) Identify the figure that completes the pattern.

(X)   (1)   (2)   (3)   (4)
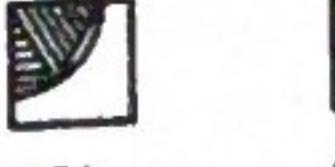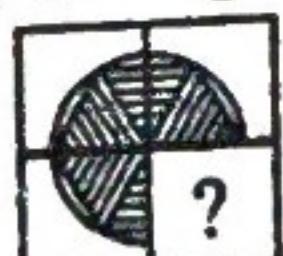
a) 1   b) 2   c) 3   d) 4

(iii) Identify the figure that completes the pattern.
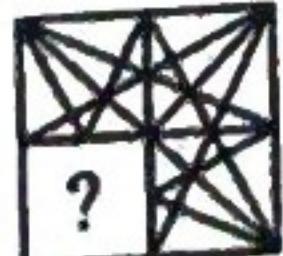
(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

(iv) Identify the figure that completes the pattern.
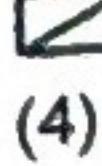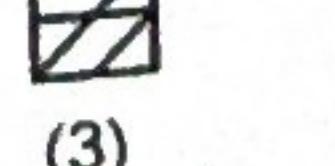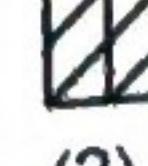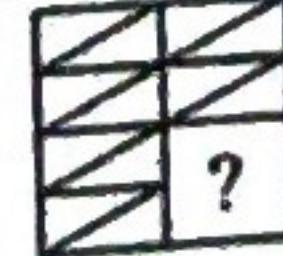
(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

(v) Identify the figure that completes the pattern.

(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

Contd....

(vi) Identify the figure that completes the pattern.

(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4
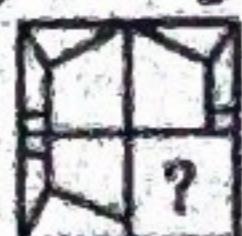
(D) Directions to Solve:

In each of the following problems, a square transparent sheet (X) with a pattern is given. Figure out from amongst the four alternatives as to how the patter would appear when the transparent sheet is folded at the dotted line.

**(i)** Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.
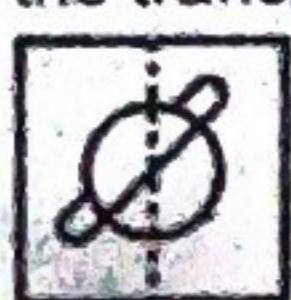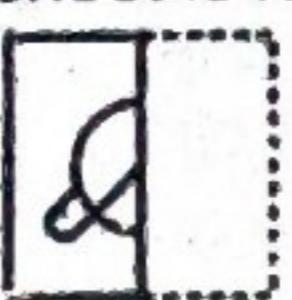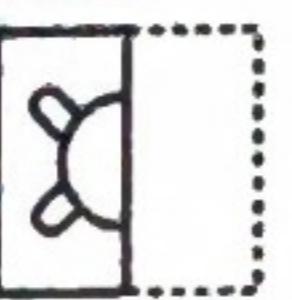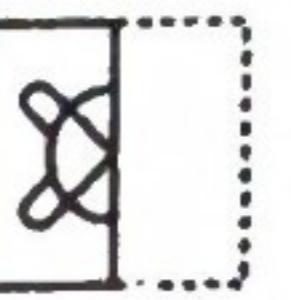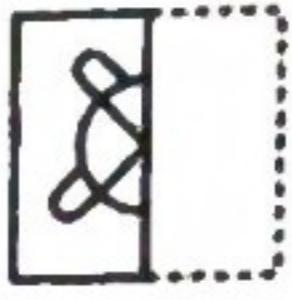
(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

(ii) Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.
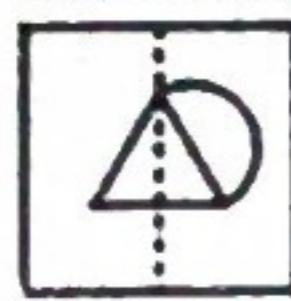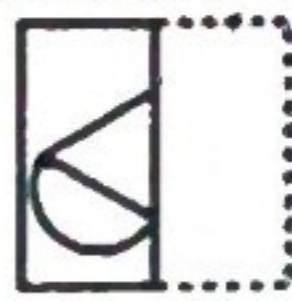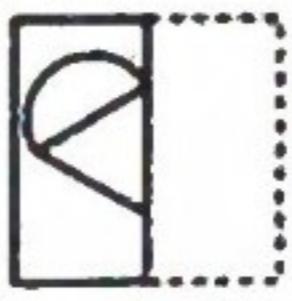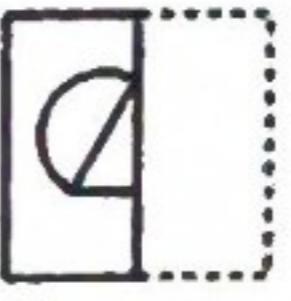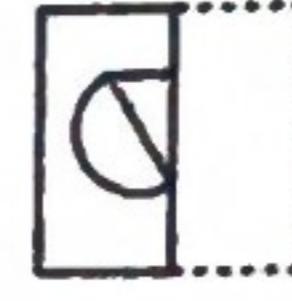

(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

(iii) Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.
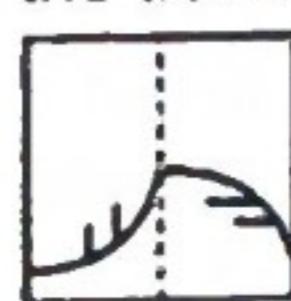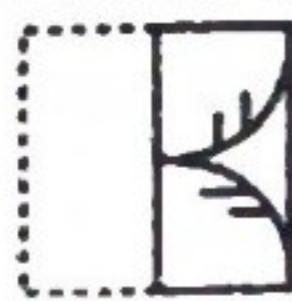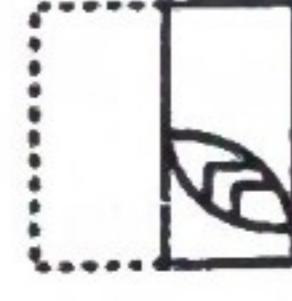
(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

(iv) Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.
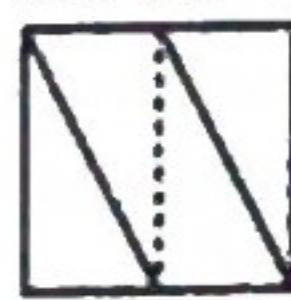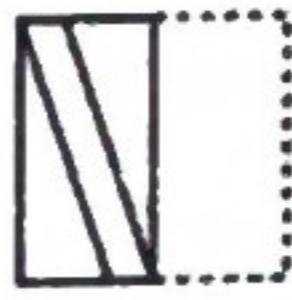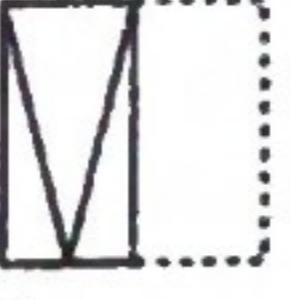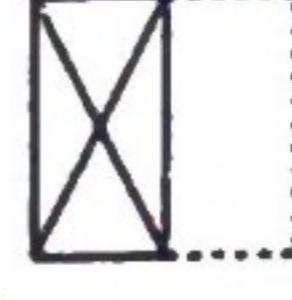

(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

(v) Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.
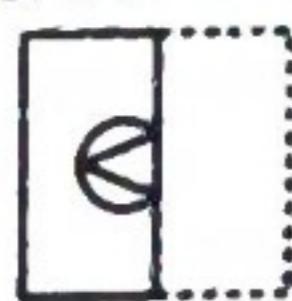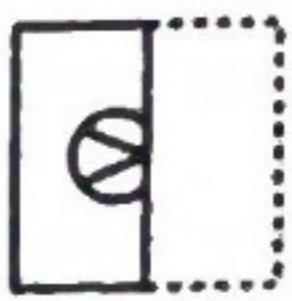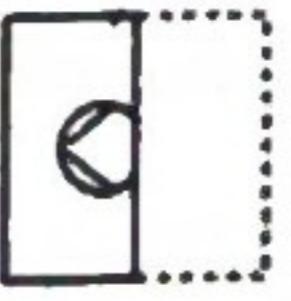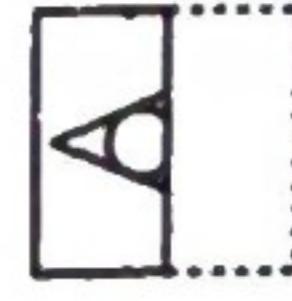

(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

(vi) Find out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.
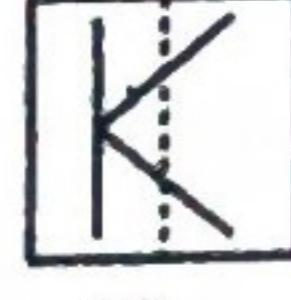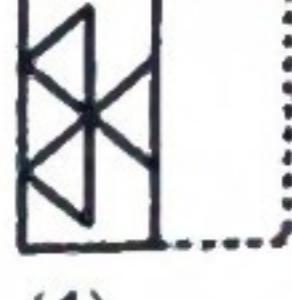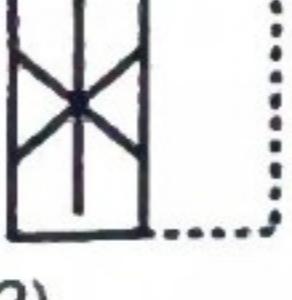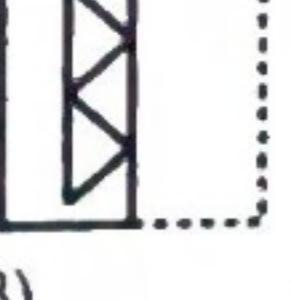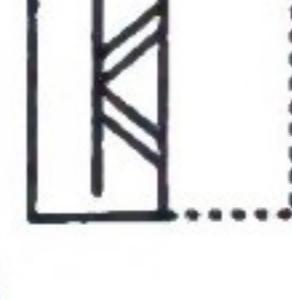

(X)   (1)   (2)   (3)   (4)

a) 1   b) 2   c) 3   d) 4

06

XXXXXX

SHRI VAISHNAV VIDYAPEETH VISHWAVIDYALAYA, INDORE
Shri Vaishnav Institute of Information Technology
Department of Computer Science and Engineering

MST I [B.Tech.]

Subject Code: GUMA301   Subject: Logical Reasoning   Semester: V

Time: I Hour   Total Marks: 20

(Handwritten alphabet-number key in margin: A-1, B-2, C-3, D-4, E-5, F-6, G-7, H-8, I-9, J-10, K-11, L-12, M-13, N-14, O-15, P-16, Q-17, R-18, S-19, T-20, U-21, V-22, W-23, X-24, Y-25, Z-26)

Question		Marks

Q1 (a) **3**

1) In a certain code 'MISSIONS' is written as 'MSIISNOS'. How is 'ONLINE' written in that code?
   A) OLNNIE   B) ONILEN   C) NOILEN   D) LNOENI   E) ONNLIE

2) If the letters of the word 'CYCLINDER' are arranged alphabetically, then which letter would be farthest from the first letter of word?
   A) N   B) E   C) Y   D) R   E) None of these

3) In a certain code 'LIMCA' is written as 'HJLDZ'. Which of the following words is written as 'IFWJBP'?
   A) MEXICO   B) MERCURY   C) JAPAN   D) MIDNIGHT   E) HONDUS

(b) **3**

1) In certain code 'HILTON' is written as 'I H T L N O'. How is 'BILLION' written in that code?
   A) IBLLION   B) IBOILLN   C) IBLLOIN   D) IBLOILN   E) IBOLLIN

2) If in the English alphabet, every alternate letter from B onwards is written in small letters while others are written in capitals, then how will the 3rd day from Tuesday will be coded?
   A) WeDNeSdAY   B) WEdnESdAY   C) THURSdAY
   D) ThUrSdAY   E) frIdAY

3) In a certain code 'SEQUENCE' is coded as 'FDOFVRFT'. How is 'CHILDREN' coded in that code?
   A) OFESJMID   B) OFSEMJID   C) OFSEJIMD   D) OFSEJMID   E) None of these

(c) **4**

1) In a certain code 'RATIONAL' is written as 'TARNOILA'. How would 'BRUTAL' be written in that code?
   A) UBRTAL   B) URBLAT   C) UBRATL   D) URBTAL   E) None of these

2) In a certain code 'PURPOSE' is written as 'UPPRSOE'. How would 'WATER' be written in that code?
   A) WATRE   B) AWTRE   C) AWETR   D) WEATR   E) TRWAE

3) If CALM is written as XZON, YEAR may be written as
   A) BVZI   B) BZVI   C) BVIZ   D) BVZJ   E) BVNI

4) In a certain code 'EASIER' is written as TGKUCG. How is CUTTER written in that code?
   A) TWVVGE   B) TGWWVE   C) TGVVWE   D) TVGVWE   E) TVVGWE

OR

(d) **4**

1) If in a certain code 'INTELLIGENCE' is written as 'ETNIGILLECNE', then how can 'MATHEMATICAL' be written in the same code?
   A) AMHTMETACILA   B) TAMMEHTALAC
   C) HTAMTAMELACI   D) LACITAMEHTAM

2) If GOODNESS is coded as HNPCODTR, then how GREATNESS can be written in that code?
   A) HQZSMFRT   B) HQFZUFRTM   C) HQFZUODTR   D) HQFZUMFRT

3) If CUP = 40, then KITE = ?
   A) 10   B) 20   C) 30   D) 45

4) If BAG = 71, then VICE = ?

    A) 69   B) 70   C) 75   D) 90

Q2 (a)   1) Pointing to a photograph of a boy Suresh said, "He is the son of the only son of my   3
mother." How is Suresh related to that boy?

    A) Brother   B) Uncle   C) Cousin   D) Father

2) If A + B means A is the mother of B; A - B means A is the brother B; A % B means A
is the father of B and A x B means A is the sister of B, which of the following shows that
P is the maternal uncle of Q?

    A) Q - N + M x P   B) P + S x N – Q   C) P - M + N x Q   D) Q - S % P

3) If A is the brother of B; B is the sister of C; and C is the father of D, how D is related
to A?

    A) Brother   B) Sister   C) Nephew   D) Cannot be determined

(b)   1) Introducing a boy, a girl said, "He is the son of the daughter of the father of my   3
uncle." How is the boy related to the girl?

    A) Brother   B) Nephew   C) Uncle   D) Son-in-law

2) If A + B means A is the brother of B; A - B means A is the sister of B and A x B
means A is the father of B. Which of the following means that C is the son of M?

    A) M - N x C + F   B) F - C + N x M   C) N + M - F x C   D) M x N - C + F

3) Pointing to a photograph Lata says, "He is the son of the only son of my grandfather."
How is the man in the photograph related to Lata?

    A) Brother   B) Uncle   C) Cousin   D) Data is inadequate

(c)   1) If A + B means A is the brother of B; A x B means A is the son of B; and A % B   4
means B is the daughter of A then which of the following means M is the maternal uncle
of N?

    A) M + O x N   B) M % O x N + P   C) M + O % N   D) None of these

2) If D is the brother of B, how B is related to C? To answer this question which of the
statements is/are necessary?

    1. The son of D is the grandson of C.

    2. B is the sister of D.

    A) Only 1   Only 2   Either 1 or 2   1 and 2 both are required

<div align="center">OR</div>

(d)   1) If A + B means A is the father of B; A - B means A is the brother B; A % B means A   4
is the wife of B and A x B means A is the mother of B, which of the following shows
that M is the maternal grandmother of T?

    A) M x N % S + T   B) M x N - S % T   C) M x S - N % T   D) M x N x S % T

2) Pointing to a photograph. Bajpai said, "He is the son of the only daughter of the father
of my brother." How Bajpai is related to the man in the photograph?

    A) Nephew   B) Brother   C) Father   D) Maternal Uncle

Note: All questions are compulsory.

MST II [B.Tech. Section]

Subject Code: GUMA301 **Subject: Logical Reasoning** **Semester: V**

Time: I Hour **Total Marks: 20**

Question | Marks

Q1 (a) In each of the following questions you are given a combination of alphabets and/or numbers followed by four alternatives (1), (2), (3) and (4). Choose the alternative which is closely resembles the mirror image of the given combination. | 3

1. Choose the alternative which is closely resembles the mirror image of the given combination.

ANS43Q12

(1) AИƧ4ƐQ12 (2) 21Q34ƧИA ✓

(3) ƧИAƐ4Q21 (4) 12Q43ƧИA

2.

TARAIN1014A

(1) A41014ИIARAT (2) ✗TARAIN1014A

(3) ✗A41014TARAIN (4) TARAIN1014A ✓

3.

1965INDOPAK

(1) ✗KAPODNI5691 (2) ✗KAPINDO1E8ƨ

(3) KAPODNI5691 (4) 1965INDOPAK ✓

(b) 1.Which symbol will be on the face opposite to the face with symbol * ? | 3

2.Two positions of dice are shown below. How many points will appear on the opposite to the face containing 5 points?


3. Choose the box that is similar to the box formed from the given sheet of paper (X).

| (X) | (1) | (2) | (3) | (4) |

(c) 1. Choose the box that is similar to the box formed from the given sheet of paper (X).   4

| (X) | (1) | (2) | (3) | (4) |

a) 1 and 4 only
b) 3 and 4 only
c) 1 and 2 only
d) 2 and 3 only ✓

OR

(d) The following questions are based on the information given below: 4
1. All the faces of cubes are painted with red colour.
2. The cubes is cut into 64 equal small cubes.
1. How many small cubes have only one face coloured ?
2. How many small cubes have no faces coloured ?
3. How many small cubes are there whose three faces are coloured ?
4. How many small cubes are there whose two adjacent faces are coloured red ?

Q2 (a) In each of the following questions, you are given a combination of alphabets and/or   3
numbers followed by four alternatives (1), (2), (3) and (4). Choose the alternative which
is closely resembles the water-image of the given combination.
1. Choose the alternative which is closely resembles the water-image of the given
combination.

NUCLEAR
(1) ᴙⱯᴸᒐᑕⴑᴎ
(2) ᴎⴑᒐᴱⱯᴙ
(3) ᴎⴑᑕᒐᴱⱯᴙ
(4) ᴎⴑᑕᒐ ᴱⱯᴙ

2.

bridge
(1) pɹᴉqɒɘʌ
(2) pɹᴉqɒɘ
(3) pɹᴉqɒɘ
(4) pɹᴉpɒɘ

3.

GR98AP76ES
(1) ᴳᴿ68Ɐᴾᒐ9Eᔡ
(2) ᴳᴿ98Ɐᴾᒐ9Eᔡ
(3) ᴳᴿ98Ɐᴾᒐ9Eᔡ
(4) ᴳᴿ98Ɐᴾᒐ9Eᔡ

(b) 1. Identify the figure that completes the pattern.   3

| (X) | (1) | (2) | (3) | (4) |

2. Identify the figure that completes the pattern.

(X) (1) (2) (3) (4)

4.Identify the figure that completes the pattern.
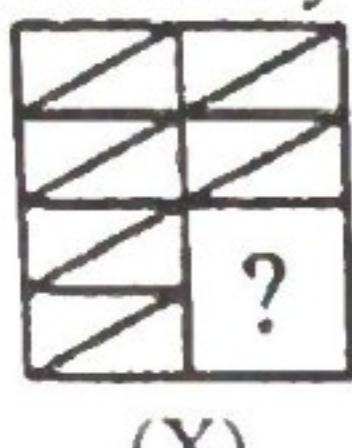
(X) (1) (2) (3) (4)
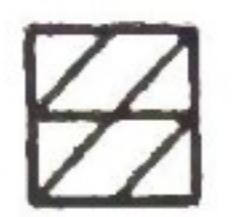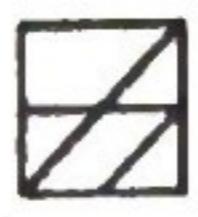
4

(c) 1.Which word does NOT belong with the others?

a) inch   b) ounce   c) centimeter   d) yard

2.Which word does NOT belong with the others?

a) tyre   b) steering wheel   c) engine   d) car

3. Which word does NOT belong with the others?

a) tulip   b) rose   c) bud   d) daisy

4. Which word does NOT belong with the others?

a) guitar   b) flute   c) violin   d) cello

OR

(d) Choose the box that is similar to the box formed from the given sheet of paper (X).

4
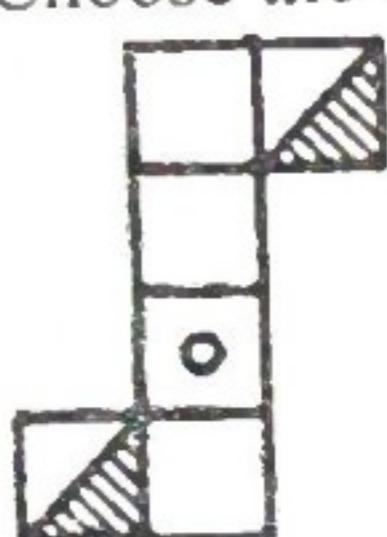
(X) (1) (2) (3) (4)

a) 1 and 3 only

b) 1 and 4 only

c) 2 and 4 only

d) 3 and 4 only

Note: All questions are compulsory.